

Arboricultural Impact Assessment

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Prepared for

Subject property: 267 Torquay Road, Grovedale 3216

Inspection date: 14 May 2026

Date of report: 14 May 2026

Purpose of this report

The purpose of this report is to provide the findings of an independent assessment of the trees occupying the aforementioned area, as well as impact mitigation advice and a risk of harm assessment where relevant. This report has been prepared in accordance with *AS4970-2025 – Protection of Trees on Development Sites* and *AS4373-2007 – Pruning of Amenity Trees*.



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Documents relevant to this report

- Australian Standard: Protection of Trees on Development Sites AS4970-2025
- Australian Standard: Pruning of Amenity Trees AS4373-2007
- Site proposal / Plans

Victorian Planning Provisions

- Clause 52.37 Canopy Trees (52.37)

A permit is required to remove, destroy or lop a canopy tree in the Mixed Use Zone, Township Zone, Residential Growth Zone, General Residential Zone, Neighbourhood Residential Zone, and Housing Choice and Transport Zone.

This does not apply:

- To a canopy tree that is dead.
- A canopy tree that is identified as a noxious weed in:
a declaration under section 58 or section 58A of the Catchment and Land Protection Act 1994. This exemption does not apply to Australian Dodder (*Cuscuta australis*); or
a planning scheme.
- To the removal, destruction or lopping of a canopy tree (other than a boundary canopy tree) identified for assessment in an application to which clause 54, 55, 57 or 58 applies and the tree is not removed, destroyed or lopped until the permit is issued.
- To the removal, destruction or lopping of a canopy tree (other than a boundary canopy tree) if the site is developed with an existing dwelling.

A canopy tree means a tree that has:

- a height of more than 5 metres above ground level; and
- a trunk circumference of more than 0.5 metres (DSH 0.16), measured at 1.4 metres above ground level; and
- a canopy diameter of at least 4 metres

A boundary canopy tree means a canopy tree if any part of its trunk is within:

- 6 metres of the narrowest street frontage of a lot; or
- 4.5 metres of the rear boundary of a lot



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To whom it may concern,

This report, as understood by the author is to be submitted to relevant parties regarding planned development of the property and the relationship to the trees present.

As agreed, this tree report will provide the following information regarding trees assessed:

- Onsite inspection of trees using QTRA methods where relevant
- Tree Identification
- Measurements and photographs (DSH tape, height meter, iPad photographs)
- Observations of tree health and condition
- Expected impact on trees and structures (including NRZ/SRZ details)
- Professional recommendations for works (if any), and/or mitigation or changes to construction techniques to allow any significant trees to be retained in accordance with AS4970-2025 *Protection of trees on Development Sites*.
- Specifics, details, or recommendations as required by the determining authority.

Please note:

1. Prior to reading this report and subsequently following any advice, opinions, recommendations, or findings provided, you must hereby understand and agree to our *Terms of Advice and Service* as provided at the end of the report.
2. Report inclusions and exclusions, assessment methodology (QTRA) and specifics pertaining to Australian Standards referenced may also be found at the end of the document.

Please find the tree report included below.

Kind Regards,

Ryan Roche.



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Table of Contents

Arboricultural Impact Assessment	1
1.0. Executive Summary	6
2.0. Property Location	7
2.1. Tree Data Table.....	9
2.2. Existing Conditions	10
2.3. Development Proposal	11
3.0. Tree Profiles.....	12
4.0. Overview of AS4970-2025 & specifics on Tree Protection Measures	22
4.1. Tree Protection Zone procedures.....	22
4.2. Inspections.....	23
4.3. TPZ isolation fencing.....	23
4.4. TPZ Fencing – illustrative examples.....	24
4.5. Compaction mitigation and fine root damage prevention via Ground Protection	26
4.6. Scaffolding	27
4.7. Tree Pruning, including branch and root pruning.	28
4.8. Service Installation.....	28
4.9. Post Construction and Landscape Construction Stage	28
5.0. Report exclusions	29
6.0. AS 4970-2025: Protection of Trees on Development Sites	29
7.0. Retention Methodologies & Tree Assessment Descriptors.....	30
8.0. Glossary of terms.....	31
9.0 General References	33
10.0. Terms of advice and service	34
11.0. Disclaimer	34



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1.0. Executive Summary

Outline of proposed development:

- The current development design consists of the complete demolition of the existing building and subsequent construction of four new residential dwellings.
- A total of 10 trees were assessed as part of this development, all other vegetation within or adjacent to the subject site were considered low value shrubs and not relevant to this report or tree controls.

Trees to be retained with no impact:

The following trees are to be retained throughout the current development design, and will not receive any impact as a result:

- Trees 8 & 9 will be retained alongside all development activities with no impact.

Trees proposed for removal:

In order to facilitate the current development proposal, the following trees are considered unretainable and will require removal:

- Trees 1, 2, 3, 4, 5, 6, 7, & 10 will require removal to facilitate the current development design.

Tree removal permits:

- It is the responsibility of the client to apply to council via this report to obtain any necessary removal permits for trees included in this report.
- Trees located within neighbouring properties or council land are owned by the respective property owners. Their removal will require the owner's permission and any necessary permits.
- All permit requirements are shown within Section 2.1. of this report.

Conclusion:

- We endorse the current proposal and all impact to retained trees provided that all construction techniques and practices listed above are implemented into the development proposal.
- Provided a Tree Protection Management Plan is implemented, we can confirm that all trees set for retention will be adequately protected throughout each stage of the proposed development.



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2.0. Property Location





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VicPlan

Home

Map

Tools

Home

Initial View

Previous Extent

Next Extent

Zoom to XY

Zones ON

Overlays OFF

Identify

Google Street View

Export

Upload Data

Share

Time Slider

Help

Feedback

Navigation

Find Data

Tasks

Help

Property Information

Property Details

Address

267 TORQUAY ROAD GROVEDALE 3216

LGA

GREATER GEELONG

Planning Scheme

GREATER GEELONG

Create Planning Property Report

Planning Scheme Zones

GRZ

GENERAL RESIDENTIAL ZONE

GRZ1

GENERAL RESIDENTIAL ZONE - SCHEDULE 1

Planning Scheme Overlays

267 TORQUAY ROAD GROVEDALE 3216

2.1. Tree Data Table

*All measurements are in metres, DSH measured at 1.4m above ground level unless council specific requirements state otherwise.

No.	BOTANICAL NAME	COMMON NAME	HEIGHT	WIDTH	DSH	NRZ	DAB	SRZ	HEALTH	STRUCTURE	AGE	VALUE	ULE	ENCROACHMENT	IMPACT	OWNERSHIP	ORIGIN	PERMITS
1	<i>Callistemon viminalis</i>	Weeping Bottlebrush	4	5	0.25	3.00	0.4	2.25	Good	Average	Semi-mature	Low	15-20	Removal	Removal	Subject site	North Eastern Australia	Exempt
2	<i>Eucalyptus caesia</i>	Silver Princess	5	2	0.10	2.00	0.11	1.50	Good	Average	Young	Low	20-30	Removal	Removal	Subject site	Western Australia	Exempt
3	<i>Pittosporum tenuifolium</i>	Kohuhu	5	6	0.19	2.28	0.22	1.75	Good	Good	Semi-mature	Low	15-20	Removal	Removal	Subject site	New Zealand	Exempt
4	<i>Syzygium australe</i>	Lilly Pilly	5	4	0.21	2.52	0.3	2.00	Good	Average	Semi-mature	Low	15-20	Removal	Removal	Subject site	New South Wales	Exempt
5	<i>Acer negundo</i>	Maple Ash	5	6	0.22	2.64	0.35	2.13	Poor	Poor	Semi-mature	Low	5-10	Removal	Removal	Subject site	Europe-North Africa	Exempt
6	<i>Eucalyptus leucoxylon</i>	Yellow Gum	9	9	0.54	6.48	0.64	2.74	Average	Good	Semi-mature	Medium	15-20	Removal	Removal	Subject site	Victoria	Clause 52.37
7	<i>Cotoneaster glaucophyllus</i>	Cotoneaster	4	5	0.25	3.00	0.4	2.25	Good	Average	Maturing	Low	10-15	Removal	Removal	Subject site	Asia	Exempt
8	<i>Leptospermum laevigatum</i>	Coastal Tea Tree	4	4	0.20	2.40	0.25	1.85	Good	Good	Semi-mature	Low	15-20	None	None	Third-party	Victoria	Third-party
9	<i>Callistemon citrinus</i>	Lemon-Scented Bottlebrush	6	3	0.19	2.31	0.2	1.68	Good	Average	Semi-mature	Low	15-20	None	None	Third-party	Victoria	Third-party
10	<i>Pittosporum undulatum</i>	Sweet Pittosporum	5	5	0.15	2.00	0.19	1.65	Good	Good	Semi-mature	Weed	10-15	Removal	Removal	Subject site	Victoria	Exempt

FORMATION PLANS

COMMERCIAL USE PROPERTY

ADJOINING CARPARK (15+ CARPARKS)

RESERVE

No. 2/4 neighbouring dwelling single storey tiled hip roof brick veneer

ADJOINING DRIVEWAY ACCESS LANE

No. 267 existing dwelling single storey tiled gable roof weatherboard (TO BE REMOVED)

STREET

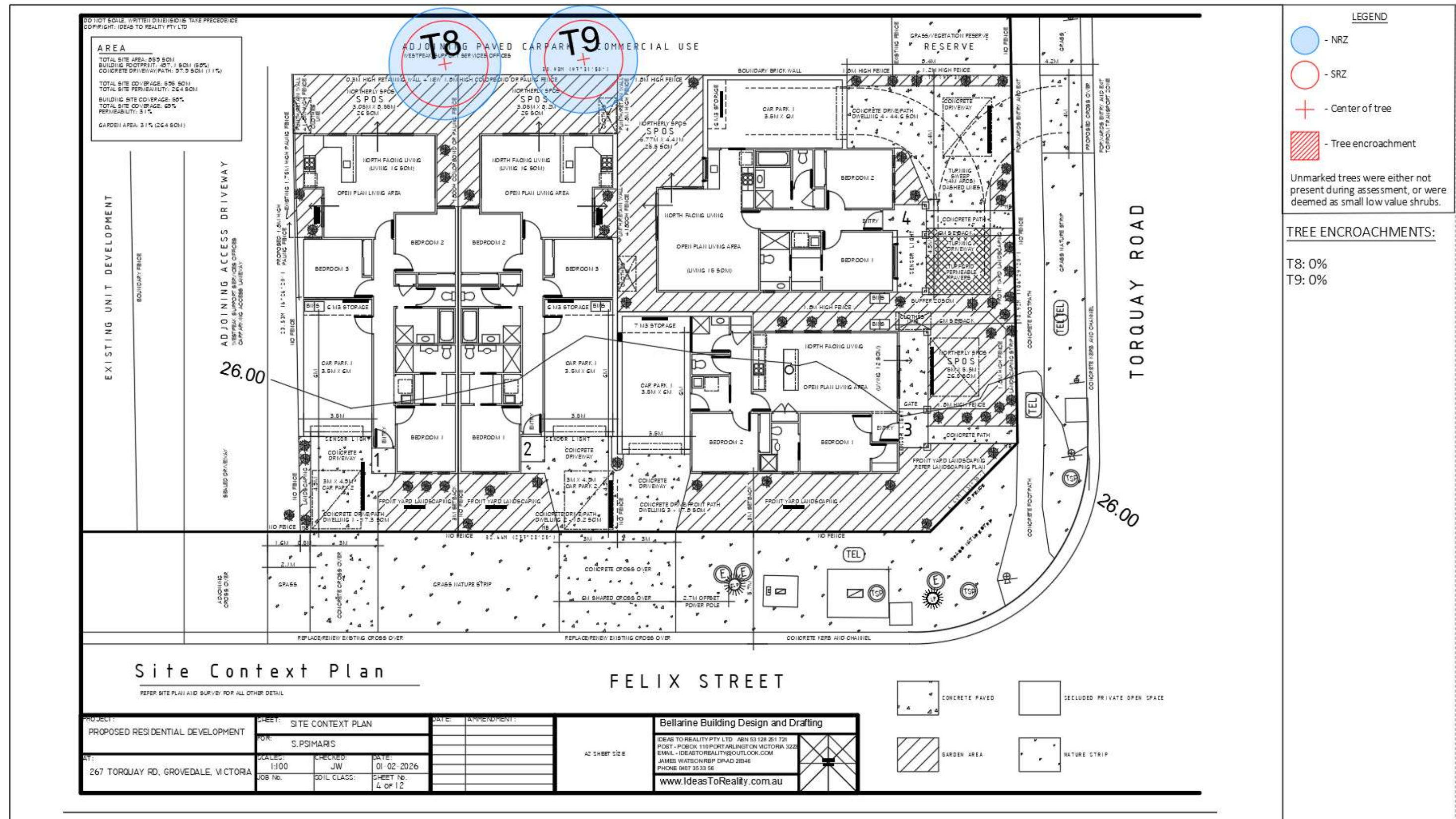
TORQUAY

LEGEND

- NRZ
- SRZ
- Center of tree
- Tree proposed for removal
- Proposed Demolition

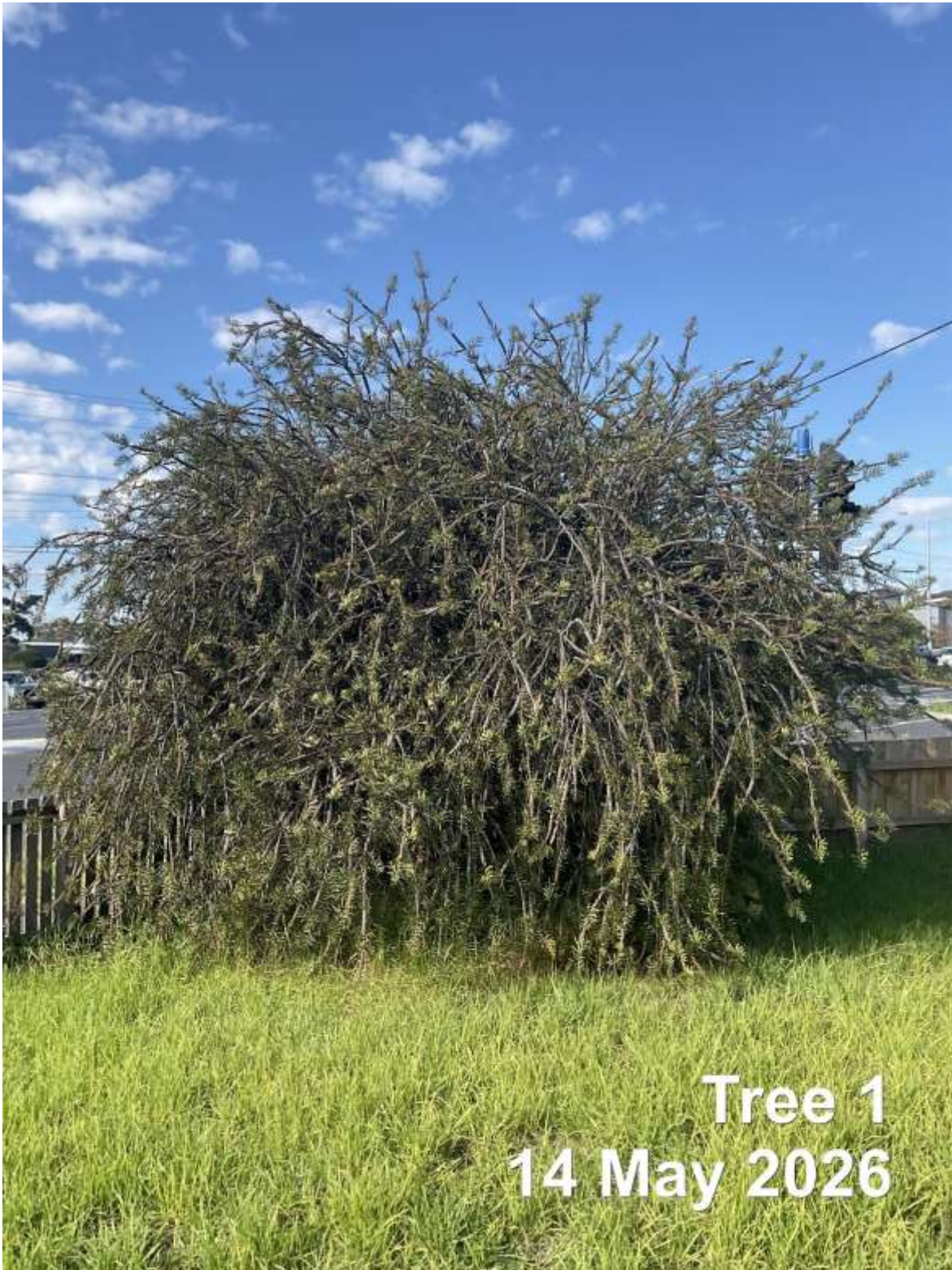
Unmarked trees were either not present during assessment, or were deemed as small low value shrubs.

2.3. Development Proposal



3.0. Tree Profiles

Tree # 1 *Callistemon viminalis* Weeping Bottlebrush





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Tree # 2 *Eucalyptus caesia* Silver Princess

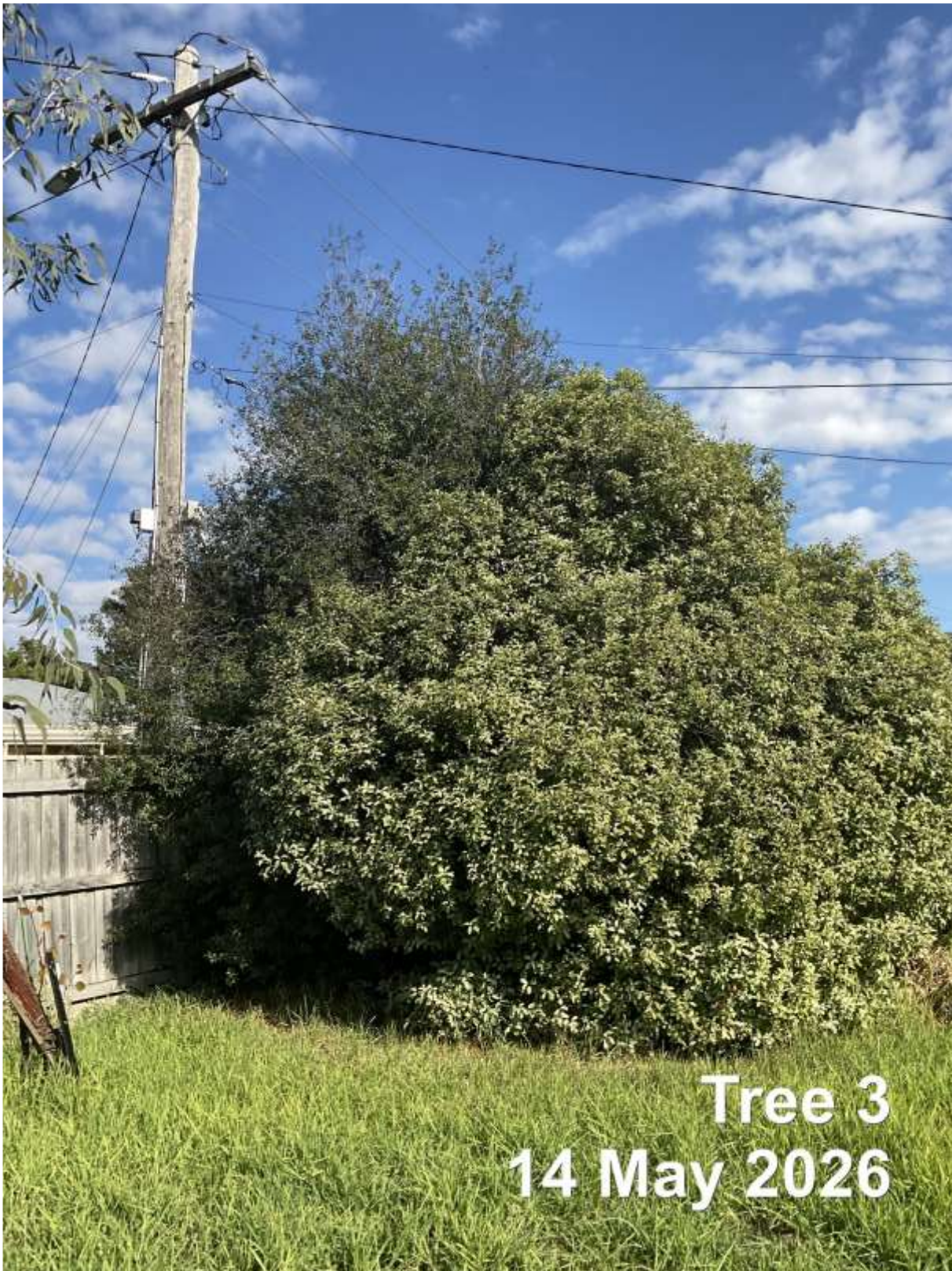




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Tree # 3 *Pittosporum tenuifolium* Kohuhu





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Tree # 4 *Syzygium australe* Lilly Pilly

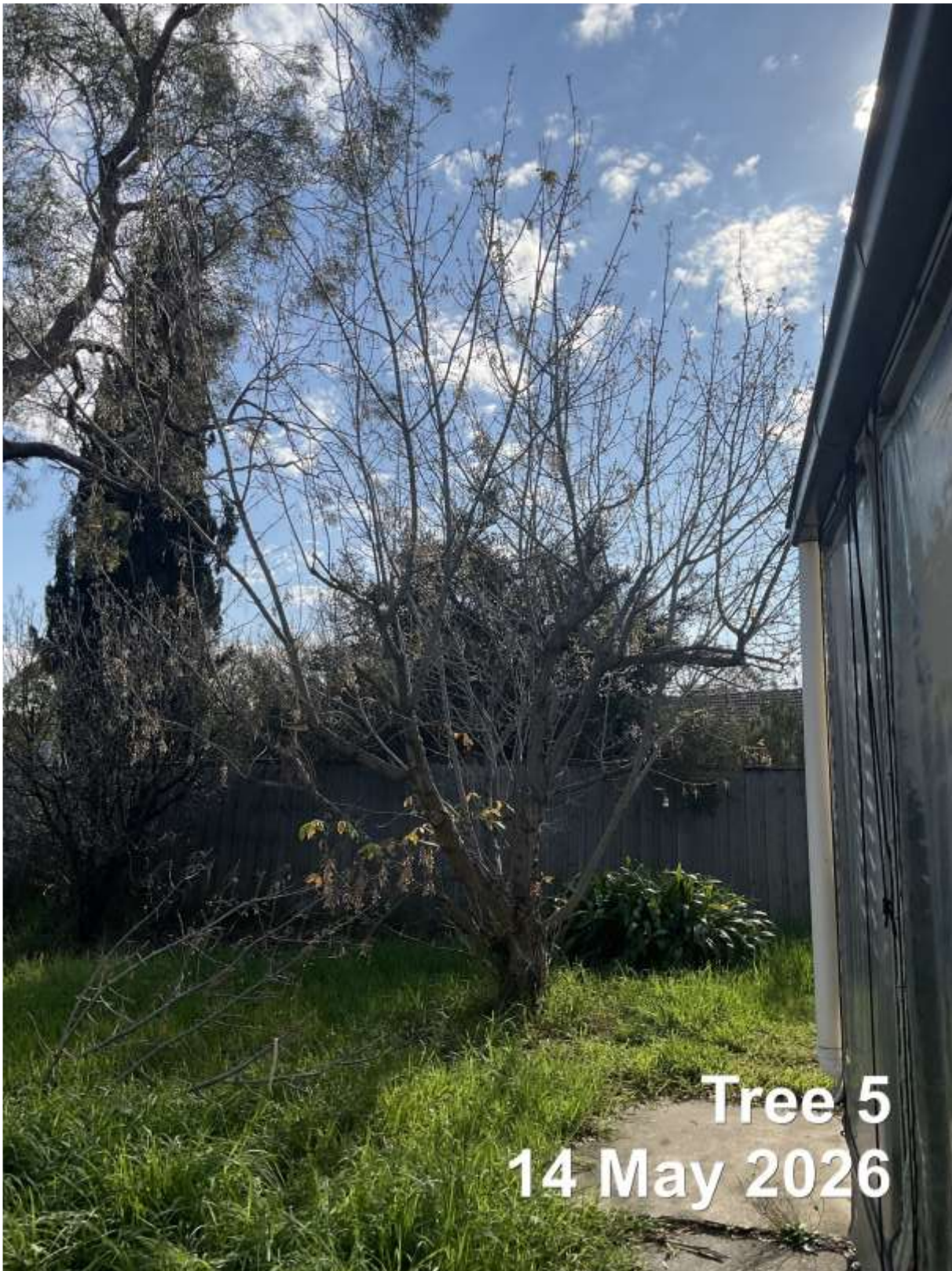




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Tree # 5 *Acer negundo* Maple Ash





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Tree # 6 *Eucalyptus leucoxylon* Yellow Gum





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Tree # 7 *Cotoneaster glaucophyllus* Cotoneaster



Tree # 8 *Leptospermum laevigatum* Coastal Tea Tree

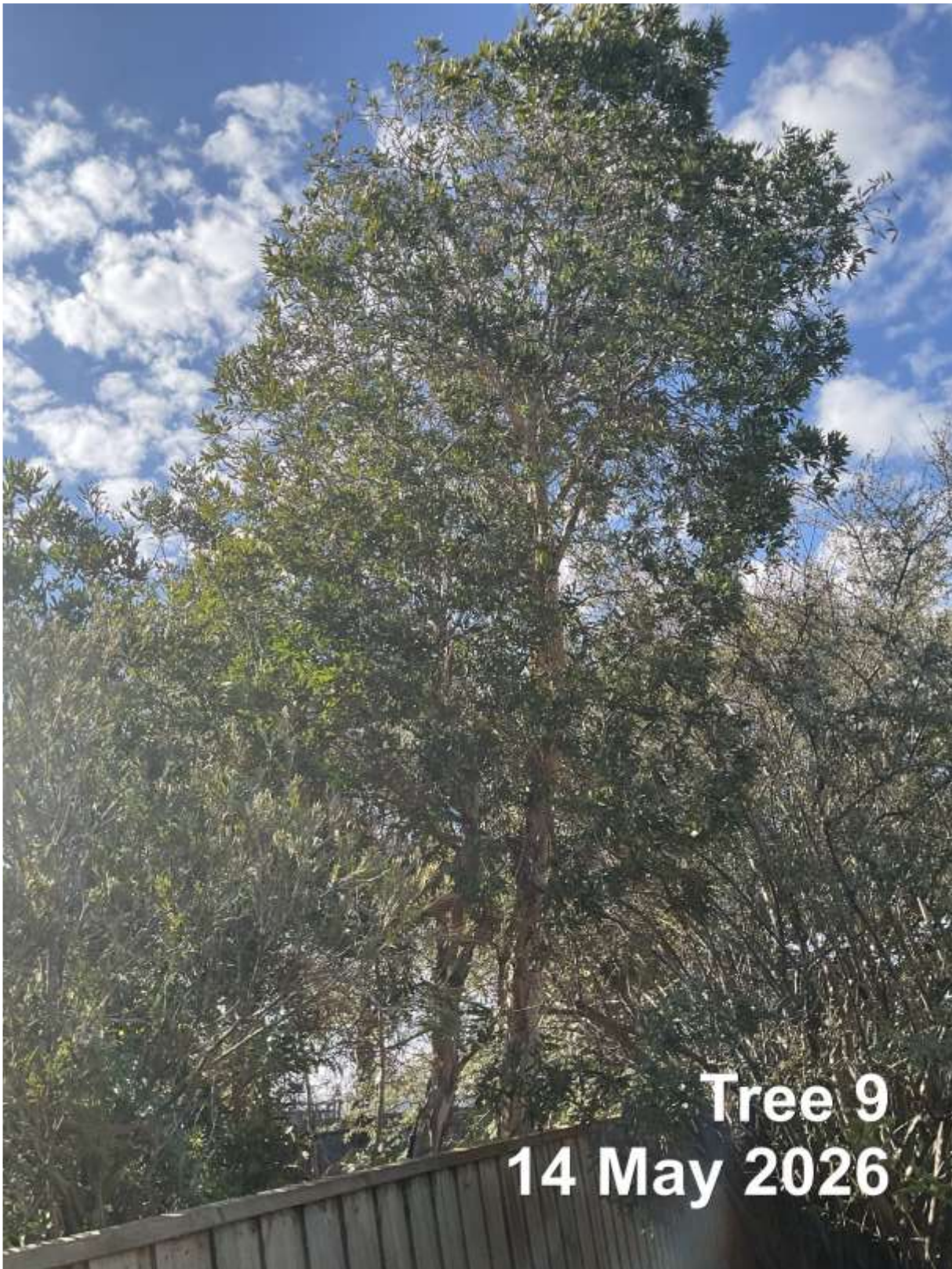




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Tree # 9 *Callistemon citrinus* Lemon-Scented Bottlebrush





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Tree # 10 *Pittosporum undulatum* Sweet Pittosporum





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4.0. Overview of AS4970-2025 & specifics on Tree Protection Measures

- This TPMP has been prepared in accordance with Australian Standard 4970-2025: Protection of Trees on Development Sites. Where proposed works are within the vicinity of trees, this standard is used to determine acceptable distances of works from trees via the calculation of Notional Root Zones (NRZ) and the Structural Root Zone (SRZ). This ensures trees are protected for the duration of the works.
- The proposed works must not encroach within the notional root zone unless this encroachment is deemed acceptable by the project arborist and in accordance with Australian Standard 4970-2025: Protection of Trees on Development Sites.

4.1. Tree Protection Zone procedures

This section outlines the non-negotiable prohibitions beyond allowable encroachment into the TPZ:

- Machine excavations including trenching.
- Excavation for silt fencing
- Cultivation
- Storage
- Preparation of chemicals including cement products
- Parking of vehicles and plant
- Refuelling
- Dumping of waste
- Wash down and cleaning of equipment.
- Placement of fill
- Lighting of fires
- Soil level changes
- Temporary placement of utilities and/or signs
- Physical damage to the tree



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4.2. Inspections

- During construction, any damage is to be documented and subsequently reported to the determining authority/Project Arborist within 24 hours. Items for the checklist are, in general:
- Tree condition including any damage.
- Adherence to TPMP procedures.
- Unauthorized deviations from the TPMP.
- New requests due to unforeseen events and requirements for amendments to the TPMP.

4.3. TPZ isolation fencing

- Fences should be erected before any machinery or materials are brought onto the site and before the commencement of works, including demolition, or in accordance with the TPS and as shown on the TPP. Once erected, protective fencing shall not be removed or altered without approval by the project arborist except in accordance with the TPS.
- The fence should restrict access to the enclosed portion of the TPZ. Semi-permanent fences or options that make it difficult to move the fence should be considered where appropriate. AS 4687.2 specifies applicable requirements where temporary fence panels are used. Where semi-permanent fences are used, the posts should be driven into the soil 600 mm (1 000 mm in sand), and top rails should be used as required.
- Existing perimeter fences and other structures may be used as part of the protective fence if suitable.
- Signs identifying the TPZ should be placed around the edge of the TPZ and be visible from within the development site, as shown in Figure 4. The lettering on the sign should conform to AS 1319 .
- Section 4.4 indicates an example of protective fences.

4.4. TPZ Fencing – illustrative examples.

**Although only one side of tree is shown, all sides of trees must be protected*

** As much allocation should be made as possible for the fencing within the nature strip area (wider the better so long as footpaths or similar are kept clear).*



**TREE
PROTECTION
ZONE**

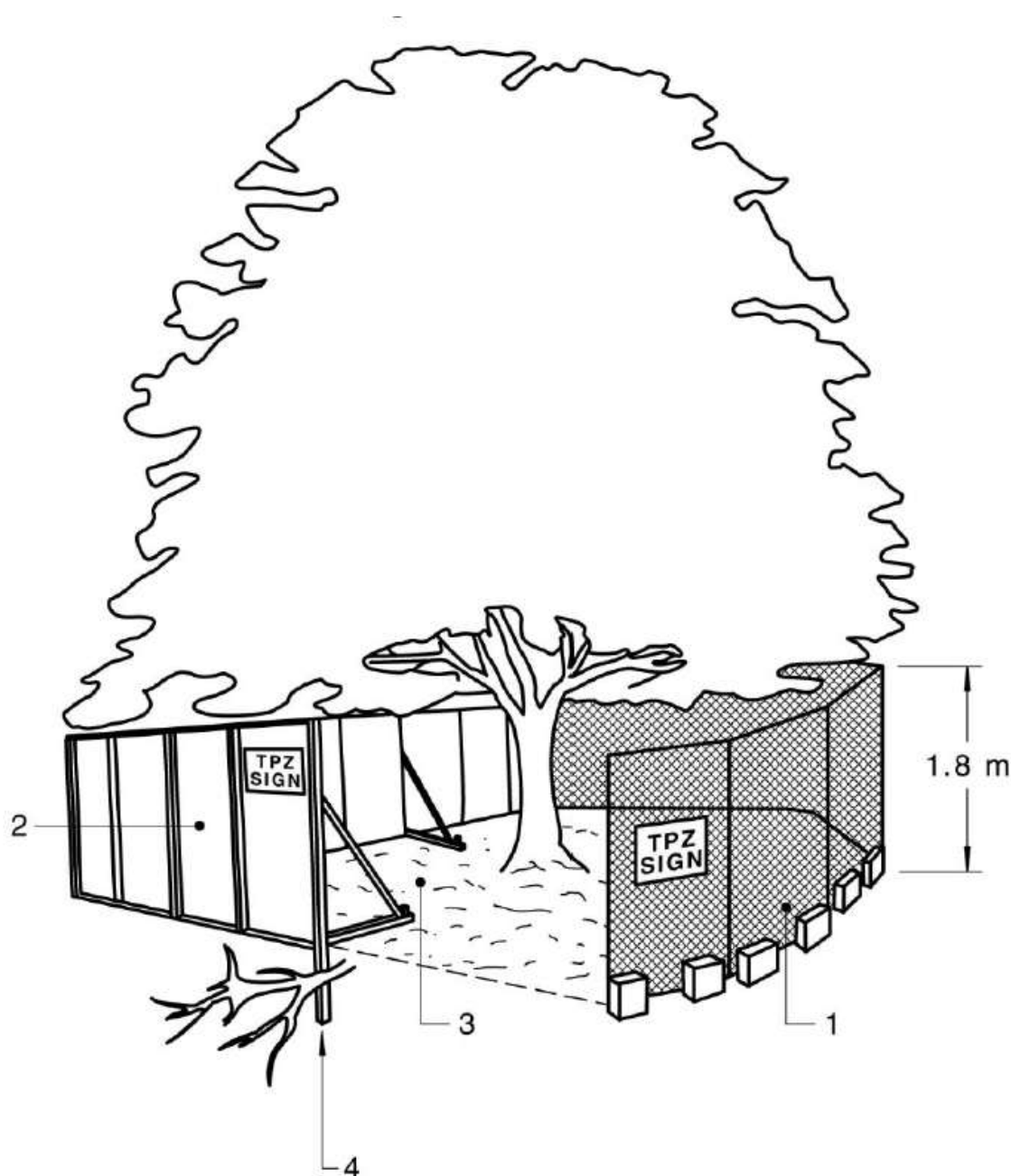


NO ACCESS

Activities excluded from the TPZ include —

- (a) Excavation or disturbance of the soil, including scraping of the surface
- (b) Spreading or stockpiling of fill
- (c) Cultivation
- (d) Equipment and material storage
- (e) Preparation of chemicals, including preparation of cement products
- (f) Parking of vehicles and plant
- (g) Refuelling
- (h) Dumping of waste
- (i) Wash down and cleaning of equipment
- (j) Fires
- (k) Physical damage to the tree

Contact:
Contact Project Manager for copy of the Tree Protection Specifications (TPS).



KEY:

¹ Chain wire mesh panels that are held in place with concrete feet.

² Alternatively, plywood or wooden paling fence panels may be used. This fencing material also prevents building materials or soil from entering the TPZ.

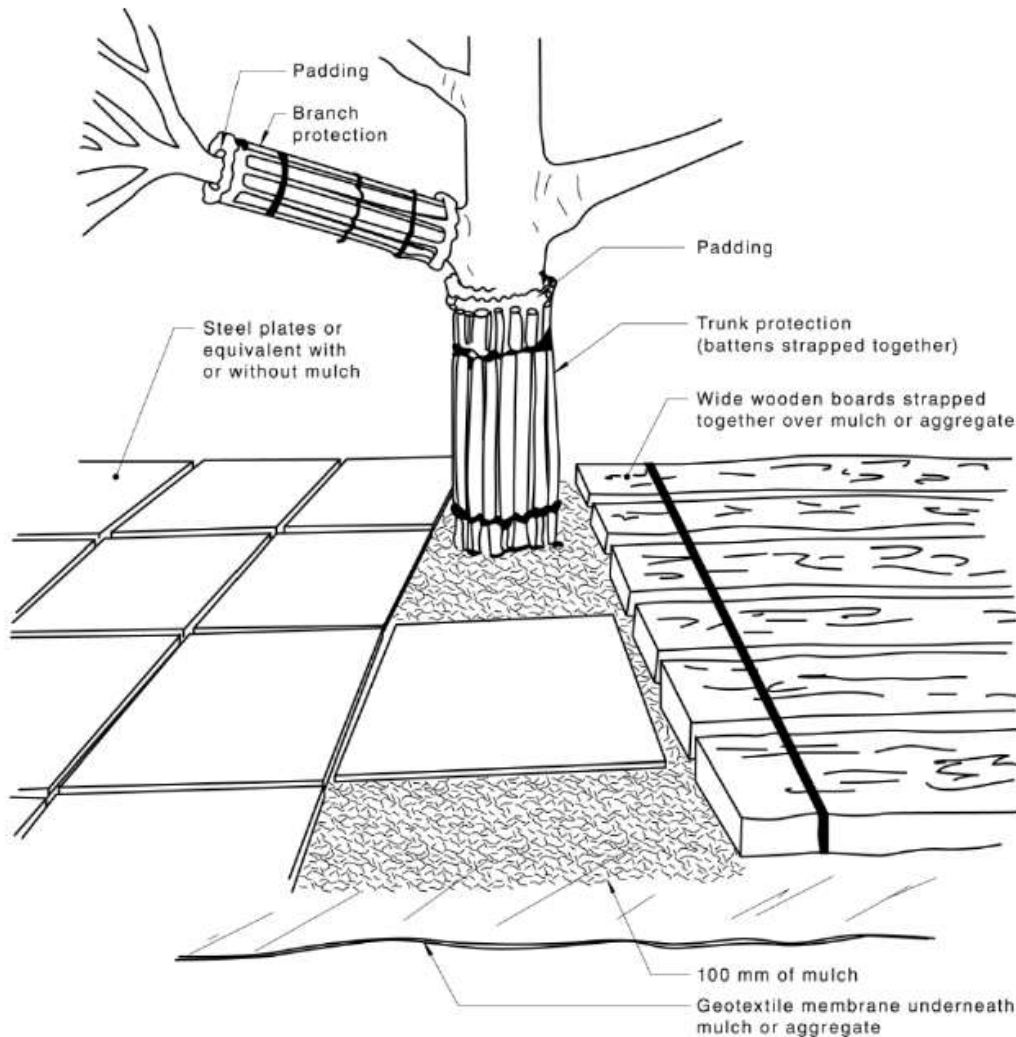
³ Mulch installation across the surface of the TPZ (as detailed in the TPS). No excavation, construction activity grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ other than those indicated in the TPS.

⁴ Bracing may be used within the TPZ. Installation of posts or supports should avoid damaging roots.

4.5. Compaction mitigation and fine root damage prevention via Ground Protection

- Protective measures for trunks and branches must be installed wherever directed in the Tree Protection Specification (TPS), consent conditions, or as illustrated in the Tree Protection Plan (TPP).
- No temporary services or structural elements, such as powerlines, stays, guys, or similar attachments, may be fixed to any tree unless explicitly allowed in the TPS.
- When pedestrian movement or temporary machinery access is required inside the Tree Protection Zone (TPZ), ground protection methods must be applied. These measures are designed to prevent root injury and soil compaction within the TPZ.
- Ground protection may also be extended to root zones outside the TPZ if needed.

NOTE Existing hard surfaces, such as driveways or concrete slabs, can be considered suitable ground protection.

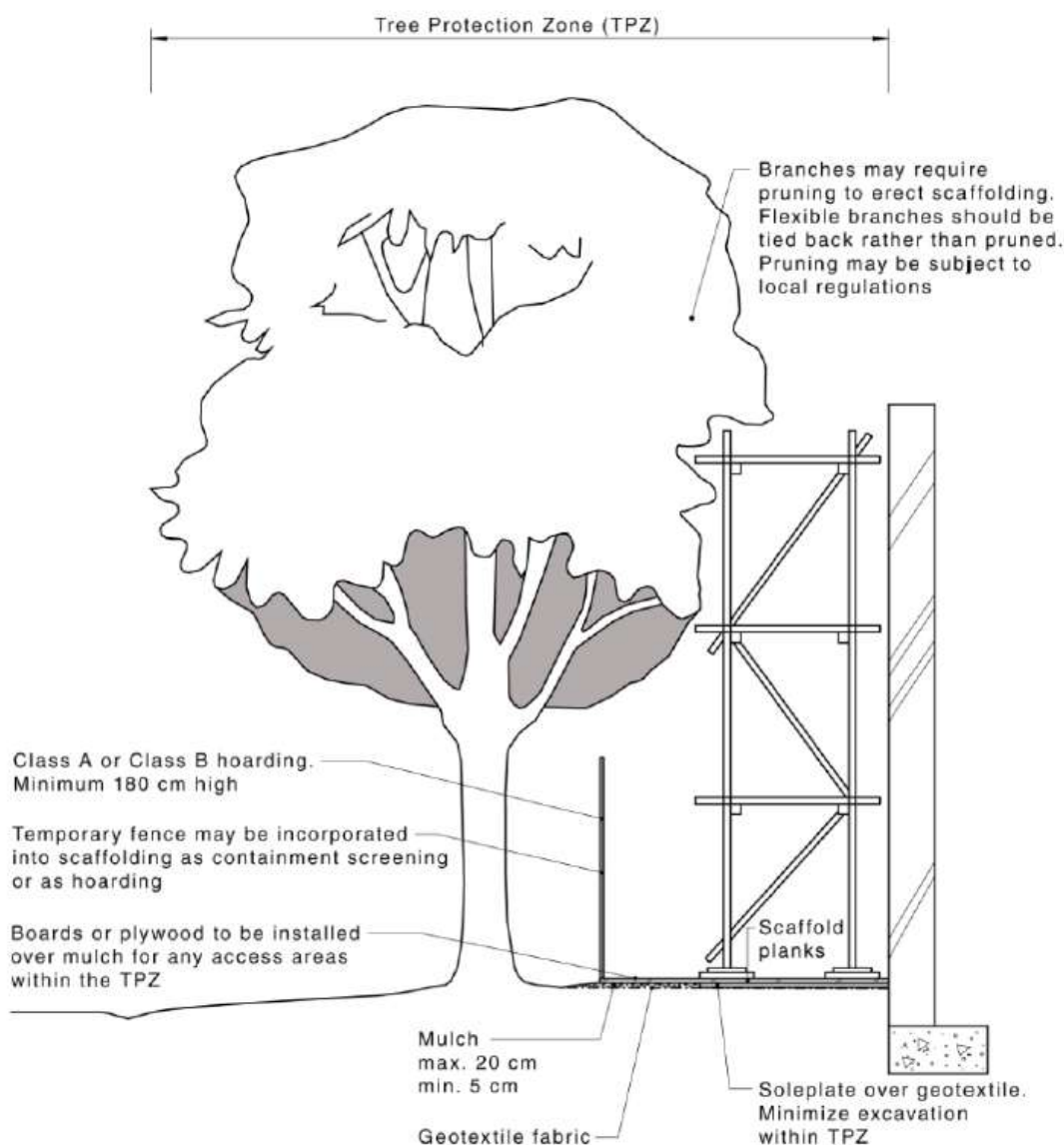


NOTE 1 For trunk and branch protection, boards and padding may be used to prevent damage to bark. Boards shall be joined to each other using hoop straps and screws or similar. They shall not be screwed or nailed to the tree.

NOTE 2 Wide wooden boards or plastic or metal plates should be of a suitable thickness to spread the load and prevent soil compaction and root damage.

4.6. Scaffolding

- Scaffolding should be positioned outside the Tree Protection Zone (TPZ) whenever feasible. If it must be located within the TPZ, any branch removal should be kept to a minimum. This can be achieved by adjusting the scaffolding design, narrowing its structure to avoid contact with branches, or temporarily tying branches back.
- Any pruning works require approval from the relevant authority and must follow the specifications provided, in accordance with AS 4373 standards.
- The ground beneath scaffolding should be covered with protective boarding, such as plywood sheets or scaffold planks, to capture falling materials like mortar or render. Where personnel or machinery access is necessary, appropriate ground protection must be installed to reduce soil compaction. This protection should remain in place until the scaffolding is dismantled, as outlined in the ground protection requirements (refer to Section 4.5).
- Excavation for scaffold sole plates or footings should be avoided where possible. If work within the Notional Root Zone (NRZ) is unavoidable, the method and extent of excavation must be determined in consultation with the project arborist.





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4.7. Tree Pruning, including branch and root pruning.

- Below are the steps to adequately protect trees from inadvertent branch breakage or the cutting of branches contrary to AS4373-02007 Pruning of Amenity Trees.
- For all trees that require pruning of branches, roots, or the tying back of branches, the following procedure applies.
- Any pruning requests (branches or roots) must be submitted to the determining authority, subsequently authorized, and must only be undertaken by a qualified arborist (AQF5 min) in accordance with AS4373-2007, Pruning of Amenity Trees.
- Prior to any works, and utilising the Impact Assessment where relevant, project arborist and construction manager are to determine extent of branch pruning and/or root pruning required to gain clearances for proposed work zones (once approval is gained). Pruning is to comply with AS 4373-2007 (Pruning of Amenity Trees).
- Damage to roots and/or pruning of roots must not occur/be undertaken without the authority of project arborist.

4.8. Service Installation

- Utility services should be routed outside the Tree Protection Zone (TPZ) wherever possible. If it is unavoidable to run underground services within the TPZ, they must be installed through directional drilling, hand-dug pits or trenches, or in accordance with guidance provided by the project arborist.
- Directional drilling should maintain an upper bore surface depth of at least 0.6 m, and it is preferable that this work remains outside the Structural Root Zone (SRZ).
- A thorough evaluation of the potential effects from boring activities, as well as the placement of launch and exit pits, must be carried out for all trees that are to be preserved.
- Any trenching carried out manually requires the project arborist to identify which roots should be preserved and to supervise the work. Manual methods may include the use of hand tools or other techniques that cause minimal disturbance.
- Installing services inside the TPZ of protected trees requires active supervision from the project arborist to reduce the risk of harming the trees' health or stability. Before any work begins, all proposed service routes must be reviewed by the arborist. This early planning allows the arborist to recommend locations, establish protective measures, and evaluate possible impacts, ensuring that the trees remain safeguarded throughout the process.

4.9. Post Construction and Landscape Construction Stage

- Landscaping within any TPZs is to be completed in the final stage of construction once machinery has left the site. Tree protection fencing and additional protective measures may be removed at this stage unless specified by the project arborist.
- All soft landscaping to be completed at existing ground level, without cultivation or changes to soil levels.



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5.0. Report exclusions

This assessment/report did not include the following:

1. Below ground inspection (includes: location, condition and/or integrity of roots; condition of inaccessible parts of trunk; property or asset conflicts and/or damage due to roots).
2. Soil profile test (includes levels of compaction if any)
3. Detailed aerial tree inspection observations/findings (Visual Tree Inspection was conducted from the ground)
4. Abiotic disorder certainty (resulting from groundwater analysis, gas leak investigations, etc.).
5. Certainty of presence/identity of biotic agents (pests, pathogens). Where present, biotic agents must be sampled and sent for lab analysis, a process not included in this commission.
6. Certainty of decay present (if any) within the tree (tree was inspected from the outside only, meaning the condition and integrity of the xylem - wood - within the tree cannot be ascertained).
7. Trees omitted from this report have been excluded either (a) in our professional opinion, they are not relevant to the matter under consideration, or (b) their exclusion was specifically requested on a valid planning or procedural basis. The trees included are those either expressly requested for survey by the client, deemed relevant based on third-party planning documents, applicable legislation, or our professional experience.

6.0. AS 4970-2025: Protection of Trees on Development Sites

This report has been prepared in accordance with Australian Standard 4970-2025: Protection of Trees on Development Sites. Where proposed works are within the vicinity of trees, this standard is used to determine acceptable distances of works from trees via the calculation of Tree Protection Zones (TPZ) and the Structural Root Zone (SRZ).

A tree protection zone is erected to establish the acceptable proximity of works, equipment, and construction practices/procedures from an existing tree. Following this, the erection of isolation fencing, the tying of branches, tree protection measures or instalment of tree protection zone signage may be required. This ensures the tree is protected for the duration of the works. The proposed works must not encroach within the notional root zone (NRZ) unless this encroachment is deemed acceptable by the project arborist and in accordance with Australian Standard 4970-2025: Protection of Trees on Development Sites.

Structural Root Zone (SRZ) refers to the structural roots within closer vicinity to the trunk which are required by the tree to remain upright. Encroachment into the SRZ of an existing tree is not permitted. Works conducted within the SRZ may destabilise the tree, requiring removal to avoid subsequent tree failure.



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7.0. Retention Methodologies & Tree Assessment Descriptors

Arboricultural Value:

Low	Trees that offer little in terms of contributing to the future landscape.
Medium	Trees with some beneficial attributes that may benefit the site. Could be considered for retention if possible.
High	Trees with the potential to positively contribute to the site. Should be considered for retention if possible.

ULE (Useful Life Expectancy):

Long	Trees that appear retainable with an acceptable level of risk for more than 40 years.
Medium	Trees that appear retainable with an acceptable level of risk for 15- 40 years.
Short	Trees that appear retainable with an acceptable level of risk for 5-15 years.
Remove	Trees with a high level of risk that would require removal within the next 5 years.

Tree age:

Juvenile	A recently planted tree.
Young	Tree is actively establishing.
Semi-mature	Tree is actively growing.
Maturing	Tree has reached expected size in existing conditions.

Tree health:

Good	Foliage is entire and with good colour, very little sign of pathogens and good density. Growth indicators are good i.e., extension growth of twigs and wound wood development. Minimal or no canopy dieback (deadwood).
Average	Tree is showing one or more of the current symptoms; <25% deadwood, minor canopy dieback, foliage with good colour though with some imperfections may be present. Minor pathogen damage present with growth indicators typical for the species and location of tree.
Poor	Tree is showing one or more of the following symptoms: >25% deadwood, canopy dieback is observable, discoloured, or distorted leaves. Pathogens present, stress symptoms are observable as reduced leaf size, extension growth and canopy density.

Tree structure:

Good	Trunk and scaffold branches show good taper and attachment with minor or no structural defects. Tree is a good example of species with a well-developed form showing no obvious root problems, pests, or disease.
Average	Tree shows minor structural defects or minor damage to trunk e.g., bark missing, cavities present. Minimal damage to structural roots. Tree could be seen as an average/typical example of its species.
Poor	There are major structural defects, damage to trunk or bark missing. Co-dominant stems present, or poor structure with points of failure. Girdling or damaged roots can be observed. Tree is structurally problematic.



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8.0. Glossary of terms

Term	Definition
Arb Value	The Arboricultural value of a tree
Compaction	The process of removing aeration from between soil aggregate via pressure applied to the soil. Pressure can be applied via pedestrian, vehicular or machinery methods. Compaction is damaging to tree roots and overall tree health and vitality
DAB	Diameter at base, as measured from just above the root flare of tree
DSH	Diameter at Standard Height. <i>*Note: DSH measured at 1.4m above ground level unless council specific requirements state otherwise.</i>
Encroachment (%)	The percentage of total NRZ area to be impacted via demolition, access, or construction. Minor encroachment – 10% or less Moderate encroachment – 11%-20% Major encroachment – more than 20% or SRZ encroachment
Ground Protection	The entire process of protecting the TPZ of a tree from damaging soil compaction or root cuts/disturbance via pedestrian, vehicular or machinery access. Executed via a geotextile membrane under 100mm of mulch. Rumble boards or steel plates are then placed atop.
Health	The health of a tree, gauged from a visual inspection, including but not limited to canopy %, photosynthetic material quantity and quality, apical bud health & bark condition.
Height	An estimate of the height of a tree
Impact	Potential / actual damage of proposed works to a tree.
Incursion	See encroachment
Measurements	All measurements within the report, including DSH, DAB, height, Spread, etc are measured in metres.
Overlay	Any vegetation or tree related regulations as imposed by the determining authority (i.e., local council).
POF	Probability of Failure
Project Arborist	An AQF Level 5 or higher qualified consulting Arborist
Pruning	The process of removing branch or root material from a tree
QTRA	Quantified Tree Risk Assessment
Rumble Boards	Wooden planks to be placed atop mulch for ground protection
Spread	The combination of east-west & north-south canopy width estimates
SRZ	Structural Root Zone (SRZ) refers to the structural roots within closer vicinity to the trunk which are required by the tree to remain upright. Encroachment into the SRZ of an existing tree is not permitted without authorization. Root cuts conducted within the SRZ may destabilise the tree, requiring removal to avoid subsequent tree failure.



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SRZ breach	Disturbance of any kind within the Structural Root Zone via any unapproved or unscheduled works.
Structure	The structural integrity of a tree, i.e., architecture, root structure,
Supervision	The presence of a Project Arborist to observe works within the TPZ of a tree/s
TPMP Site Induction	Construction manager, project arborist and all contractors to meet on-site or remotely prior to site preparation to introduce the Tree Management and Protection Plans, including the works requiring supervision by the project arborist inside the TPZ. The Tree Management Plan and Tree Protection Plan induction must be attended by all contractors. Project arborist to attend and sign off.
NRZ	A notional Root Zone (NRZ) is calculated ($DSH \times 12$) to establish the acceptable proximity of works, equipment, and construction practices/procedures from an existing tree. This measurement represents a radius from the centre of the tree trunk and encompasses both below and above ground aspects.
TPZ Fencing	Fencing erected in accordance with AS4970 to isolate and protect a tree to be retained
TPZ Mulching	The procedure of applying mulch within the TPZ of a tree. Mulch must be of a heavy, wood chip variety and applied at a minimum of 100mm depth. To avoid burns and health complications, mulch must not be allowed to come in contact with the immediate tree trunk
Tree architecture	The shape of a trees' canopy.
Tree Protection Plan (TPP)	A document involving all protection measures for trees on a site to be retained in the same or an acceptable condition throughout a construction project. This document is provided to all workers on site and must be adhered to
TPS	Tree protection specifications
Trunk Protection	The process of protecting tree trunks or branches from any form of damage as a result of demolition, access, or construction.
ULE	Useful Life Expectancy



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- To the authors knowledge, all facts, assessment techniques and material presented is current and accurately researched. Opinions expressed within this report are supported by current research.
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