

Tree Rapport

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Preliminary Tree Assessment

2 Mouchemore Avenue, St Leonards, Vic

Commissioned by: CES Design

29/05/2026

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1.0 Introduction

Tree Rapport has been engaged by CES Design to carry out a Preliminary Tree and Impact Assessment at 2 Mouchemore Ave, St Leonards, Victoria.

This report will address:

- On-site trees
- Clause 52.37 Canopy Tree compliance
- NRZ and SRZ calculations
- Impact Assessment
- Recommendations

2.0 Methodology

David Stevens (AQF III and V (Dip) Horticulture (Arboriculture) Melbourne Polytechnic) from Tree Rapport assessed the trees on 28/05/2026.

A total of seven on-site trees were assessed.

This report acknowledges and draws on details from AS 4970 – 2025 Protection of Trees on Development Sites.

The tree species were identified, measured (height [estimated], width, Diameter at Standard Height {DSH}) 1.4m above ground level, Diameter Above Root Buttressing {DARB} (40cm above ground level), health, structure, and retention value and ULE were assessed.

A visual assessment of the trees was made from ground level in line with modern arboricultural practices and principles, 'AS 4970 – 2025 Protection of Trees on Development Sites' and 'AS 4373 – 2007 REC:2020 – Pruning of Amenity Trees'. The trees were not climbed, and no samples of the trees or site soil were taken.

Photographs (iPhone 10) were taken on the day of assessment.

The Notional Root Zone is referred to as NRZ.

The Tree Protection Zone is referred to as TPZ.

The Structural Root Zone is referred to as SRZ.

3.0 Planning Controls

2 Mouchemore Ave, St Leonards, is in the **City of Greater Geelong** and is subject to the following zones and overlays:

Planning Zones:

GENERAL RESIDENTIAL ZONE – SCHEDULE 2 (GRZ6)

Planning Overlays:

DESIGN AND DEVELOPMENT OVERLAY – SCHEDULE 14 (DDO14)

Other:

Clause 52.37 (Canopy Trees) 15/09/2025

52.37-1 Meaning of Terms

- 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, measured at 1.4 metres above ground level; and
 - a canopy diameter of at least 4 metres;
- 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;
- new canopy tree means a canopy tree proposed to be planted. It must be a species and type that will, at maturity, have:
 - an expected height of at least 6 metres above ground level; and
 - an expected canopy diameter of at least 4 metres.

52.37-2 Permit Requirement, 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:

- If the table of exemptions in clause 52.37-8 specifically states that a permit is not required.
- 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.

Under this provision:

A permit is required to remove, destroy or lop a Canopy Tree within 6 metres of the narrowest street frontage and 4.5 metres of the rear boundary where:

- The land contains an existing dwelling where no development is proposed
- The land contains an existing dwelling and is proposed to be extended
- The land is vacant and a planning permit application is being assessed for one or more dwellings
- The land contains an existing dwelling(s) and a planning permit application is being assessed for one or more dwellings

Canopy Trees beyond these setback distances (>6m from the front boundary and >4.5m from the rear boundary) are not protected under this control and may be removed without a permit.

Reference: <https://www.planning.vic.gov.au/guides-and-resources/guides/all-guides/protecting-and-enhancing-our-tree-canopy-for-a-greener-victoria>

52.37 CANOPY TREES Greater Geelong Planning Scheme - Ordinance

4.0 Site Survey and Tree Numbers

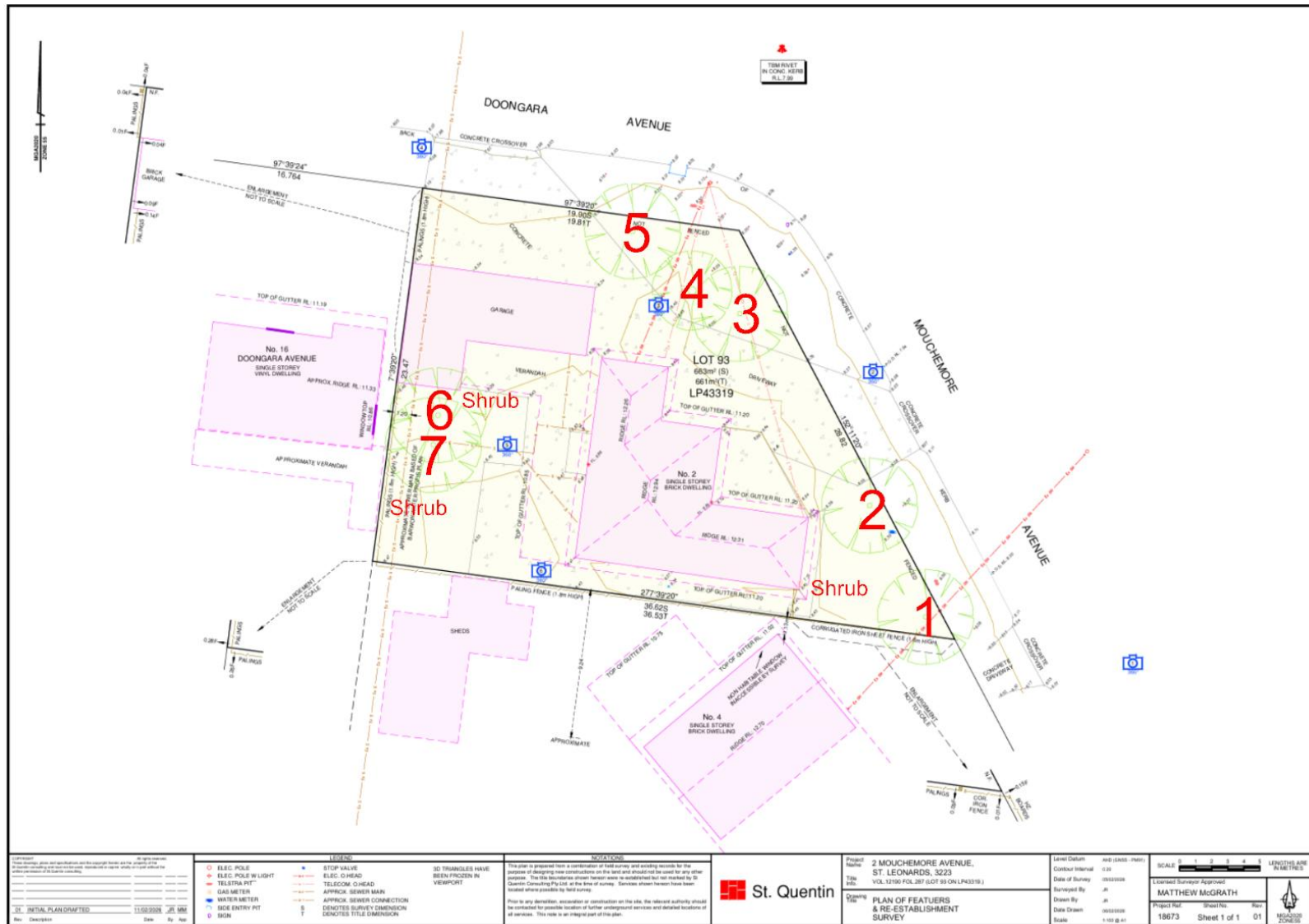


Figure 1: Site Survey and Tree Numbers

5.0 Tree Data

The following table shows all the tree data collected during the assessment.

- Calculated D.B.H. is for multi-stemmed trees only. $DBH = \sqrt{s1^2 + s2^2 + s3^2 + s4^2 + s5^2}$

Tree #	Botanical Name Common Name	Age	Origin	DSH (cm)	NRZ	NRZ Encroachment	DARB (cm)	SRZ	Height (m)	Width (m)	Boundary Canopy Tree	Health	Structure	Retention Value	ULE (years)	Hazard	Comments
1	<i>Banksia ericifolia</i> / Heath-Leaved Banksia	Mature	Native	13	2.00	NA	20	1.68	3	3.5	No	Good	Fair	Low	10-20	Low	Onsite tree; co-dominant stem; phototropic growth pattern; branches over boundary.
2	<i>Pittosporum eugenoides</i> 'Variegatum' / Lemonwood	Mature	Exotic	12	2.00	0%	20	1.68	3.5	3	No	Good	Good	Low	10-20	Low	Onsite tree; co-dominant stem; phototropic growth pattern.
3	<i>Malus sp.</i> / Apple Tree	Mature	Exotic	30	3.60	0%	36	2.15	4	4	No	Fair	Fair	Low	10-20	Low	Onsite tree; co-dominant stem; existing soil compaction.
4	<i>Araucaria heterophylla</i> / Norfolk Island Pine	Mature	Native	47	5.64	0%	50	2.47	12	5.5	Yes	Good	Good	Medium	>20	Low	Onsite tree; existing soil compaction; service wire prune.
5	<i>Eriobotrya japonica</i> / Loquat	Mature	Exotic	30	3.60	0%	31	2.02	5.5	6.5	Yes	Fair	Fair	Low	10-20	Low	Onsite tree; co-dominant stem; phototropic growth pattern; existing soil compaction; decay in the union.
6	<i>Prunus persica</i> / Nectarine	Dead	Exotic	29	3.48	NA	33	2.08	5.5	3.5	No	Dead	Fair	Nil	0	Low	Onsite tree; co-dominant stem; existing soil compaction.
7	<i>Citrus x limon</i> / Lemon Tree	Mature	Exotic	13	2.00	NA	18	1.61	4	4	No	Fair	Good	Low	>20	Low	Onsite tree; co-dominant stem.

Table 1: Tree Data

6.0 Proposed Sub-division and Carport, NRZs, SRZs and Existing Soil Compaction

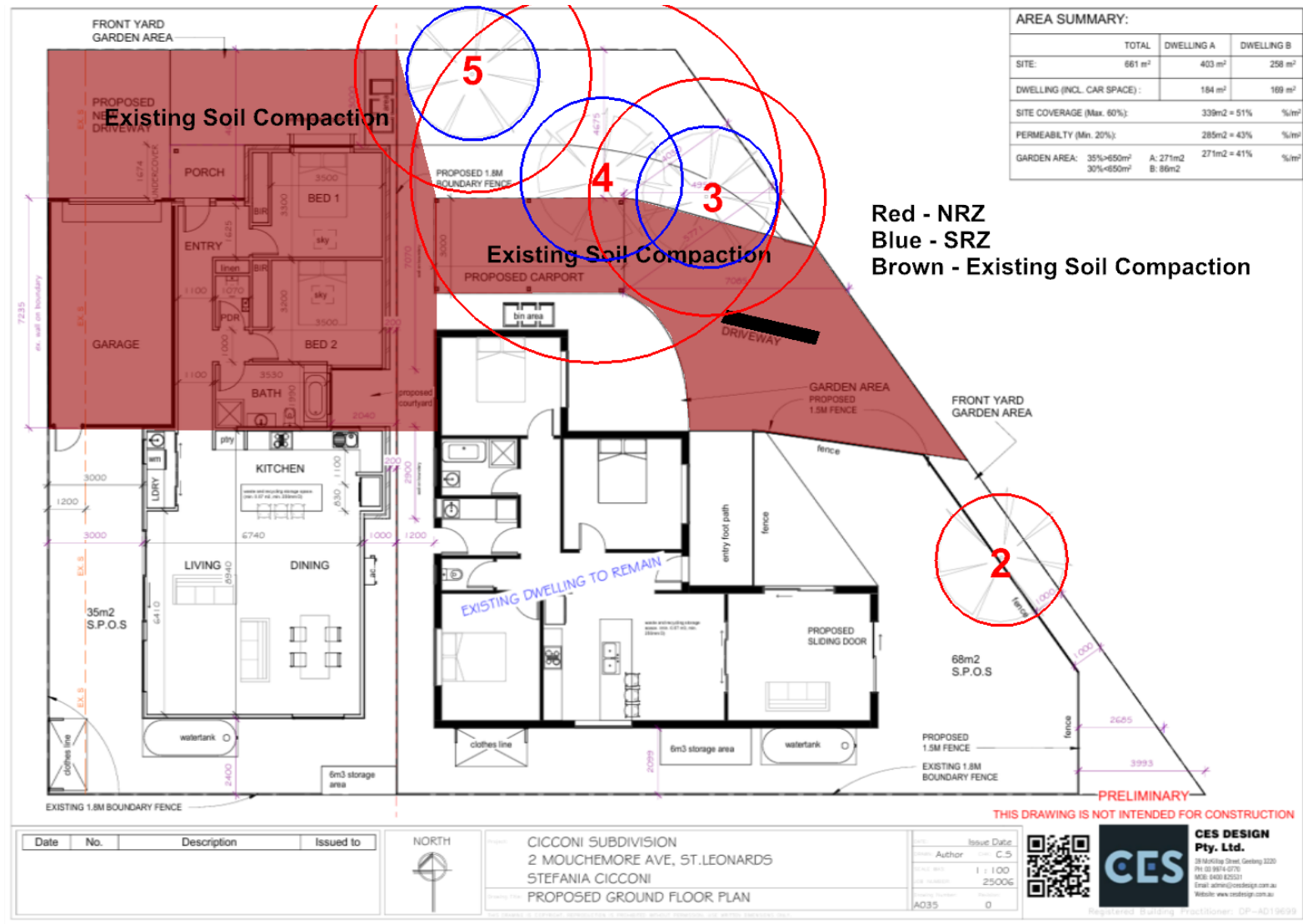


Figure 2: Proposed Sub-division and Carport, NRZs, SRZs and Existing Soil Compaction

6.1 Summary

Figure 2 (6.0) shows the relationship between the proposed subdivision, carport and the calculated NRZs and SRZs of the retained trees.

Trees 4 and 5 are identified as Boundary Canopy Trees under Clause 52.37 of the Victorian Planning Scheme and are proposed to be retained as part of the development. Tree 3 is not a boundary canopy tree. These trees are located adjacent to an existing concrete driveway and hardstand area that has resulted in long-term soil compaction within portions of their rooting environment. The trees display fair to good health and structure and appear to have adapted successfully to the constrained site conditions.

AS 4970–2025 acknowledges that existing and historical site features, including structures, paving and other obstacles, can influence root distribution and development. *Prescence of existing or past structures, obstacles affecting root growth or recent encroachments* (Clause 3.3.2-K). Where root growth has been restricted by such features over an extended period, site-specific conditions may justify variations to calculated protection zones.

The proposed carport is to be constructed over the existing driveway, with support posts fixed to the concrete hardstand using mechanically fastened base plates rather than conventional footings. This construction methodology avoids excavation within the NRZs and SRZs of Trees 3, 4 and 5 and results in a calculated NRZ encroachment of 0%.

Tree 2 is outside the proposed carport development.

The proposed removal and reconstruction of the north-western driveway associated with the subdivision is located outside the NRZs of Trees 4 and 5. The works are not expected to significantly affect the retained trees provided appropriate tree protection measures are implemented during construction.

Impact Summary

Tree #	Planning Status	Proposed Outcome	Development Impact
1	Not a Boundary Canopy Tree	Removal	No constraint
2	Not a Boundary Canopy Tree	Retain	No constraint
3	Not a Boundary Canopy Tree	Retain	Low
4	Boundary Canopy Tree	Retain	Low
5	Boundary Canopy Tree	Retain	Low
6	Dead tree	Removal recommended	No constraint
7	Not a Boundary Canopy Tree	Removal	No constraint

Table 2: Impact Summary

7.0 Conclusion

A total of seven trees were assessed as part of this Preliminary Tree Assessment.

Trees 4 and 5 meet the definition of a Boundary Canopy Tree under Clause 52.37 of the Victorian Planning Scheme, while Trees 1, 2, 3, 6 and 7 do not. Trees 1, 2, 3, 6 and 7 can be removed without the requirement for a planning permit under Clause 52.37.

Trees 2, 3, 4 and 5 are proposed to be retained. The proposed subdivision and carport have been designed to utilise the existing driveway and hardstand areas, avoiding excavation within the retained trees' calculated NRZs and SRZs. The proposed support posts are to be mechanically fixed to the existing concrete surface, eliminating the need for footing excavation within the trees' protection zones.

Based on the information available at the time of assessment, Trees 2, 3, 4 and 5 can be retained as part of the proposed development. Subject to the implementation of the recommended tree protection measures, the proposed works are not expected to have a significant impact on the health, structural stability or long-term retention of these trees.

8.0 Recommendations

- Retain and protect Trees 2, 3, 4 and 5 throughout all demolition and construction activities in accordance with AS 4970–2025.
- Install Tree Protection Zone fencing around Trees 3, 4 and 5 prior to commencement of works and maintain the fencing for the duration of construction activities.
- No excavation, storage of materials, vehicle access, fill placement, washout activities or other construction-related disturbance should occur within fenced TPZ areas unless approved by the project arborist.
- Any roots encountered during construction should be managed in accordance with AS 4970–2025. Roots greater than 25 mm diameter should not be severed without prior arboricultural assessment.
- Trees 3 and 4 may require minor branch uplift pruning to provide clearance from the proposed carport. Any pruning should be limited to the minimum extent necessary and undertaken in accordance with AS 4373–2007.
- Any underground services proposed within a TPZ should be installed using low-impact methodologies such as directional drilling or manually excavated trenches under arboricultural supervision.
- Should the design or construction methodology change, further arboricultural assessment should be undertaken prior to the commencement of the affected works.

Appendix 2: Tree Photos



Tree 1



Tree 2



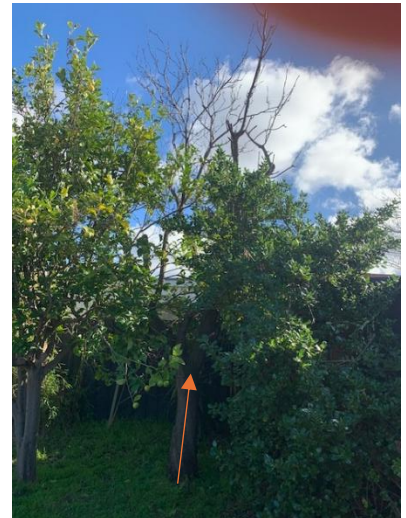
Tree 3



Tree 4



Tree 5



Tree 6



Tree 7

Terms and Limitations of the Report

- Any legal information in this report has been provided to *Tree Rapport* by an external source and it is assumed to be correct. All references to property title and/or control or ownership of land are assumed to be correct as *Tree Rapport* has been advised.
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- This report is developed around the information provided by our client in the project brief. Only issues covered by the project brief are discussed in this report.
- All details, information and advice contained in this report have been researched and referenced. Where no reference is included, it is the author's learned opinion, experience and observations.
- This report is valid for twelve months from report publishing date (i.e. Date on front page).

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Arborist Glossary

Age Class

- **Decline** – Reduced vigour; stress-related deterioration.
- **Juvenile** – A seedling or sapling.
- **Mature** – Close to genetic potential; minimal annual growth.
- **Semi-Mature** – Growing but not yet at full size.
- **Senescent** – Physiologically declining; little to no new growth.
- **Young** – Actively growing; significant annual growth.

Amenity Value – The aesthetic, cultural, or ecological contribution of a tree to its surroundings.

AS 4373-2007 – Australian Standard for Pruning of Amenity Trees.

AS 4970-2009 – Australian Standard for Protection of Trees on Development Sites.

Basal Area – Cross-sectional area of the trunk at breast height (cm² or m²).

Bi-furcated – A single stem splitting into two.

Boundary 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;

Calculated DBH – Used for multi-stemmed trees: $DBH = \sqrt{s1^2 + s2^2 + s3^2 + s4^2 + s5^2}$

Canopy Clearance – Distance from ground to the lowest point of the canopy over an area of interest.

Canopy Tree -

– a height of more than 5m above ground level; and

– a trunk circumference of more than 0.5m, measured at 1.4 metres above ground level; and

– a canopy diameter of at least 4m.

Canopy Volume – Estimated three-dimensional space occupied by the crown.

Crown Base Height – Height from ground to the first significant live branch or foliage.

Crown Spread – Average width of the canopy, usually measured along two perpendicular axes.

Clause 52.17 – Victorian Planning Scheme provision relating to native vegetation removal.

Codominant Stem – Forked branches of nearly the same diameter, arising from a common union and lacking a branch collar.

Compartmentalisation (CODIT) – Tree's natural process of isolating damaged or infected tissue.

Decurrent – Broad crown; weak central leader.

Defect – Any condition reducing structural integrity or health.

Dieback – Progressive death of extremities.

DSH (Diameter at Standard Height) – Trunk diameter measured at 1.4 m above ground (circumference $\div$ π).

DARB (Diameter at Root Buttress) – Diameter at the start of root flare.

Dynamic Load – Variable force (e.g. wind).

Epicormic Growth – Stress-induced shoots; weak attachments.

Excurrent – Narrow crown; dominant central trunk.

Girdling Root – Root that encircles and constricts the trunk or other roots.

Good/Fair/Poor/Very Poor Structure – Categories describing form and attachment soundness.

Good/Fair/Poor/Very Poor/Dead Health – Categories describing canopy density, growth and disease presence.

Growth Terms

- **Nutrient Uptake** – Absorption of essential elements by roots.
- **Photosynthesis/Energy Production** – Conversion of sunlight into carbohydrates; supports growth and resilience.
- **Non-Woody Roots** – Fine roots responsible for water/nutrient uptake.
- **Root Plate** – Functional rooting area, often asymmetric.
- **Scaffold Branch/Root** – Primary structural limb or root.

Hazardous – Likely to fail; urgent removal required.

Height (H) – Measured from ground level to the highest live point of the canopy.

Heartwood Decay – Fungal degradation of central, non-living wood.

Included Bark – Inward-facing bark at branch unions; weak point.

Leaf Area Index (LAI) – Ratio of total leaf surface area to ground area beneath the crown.

Leaning Tree – Trunk growth at a significant angle from vertical.

Lion Tailing – Long branches with foliage only at tips.

Load – Magnitude of force acting on a tree part.

Lopping – Indiscriminate cutting; non-compliant with AS4373-2007.

Minor/Moderate/Major Encroachment – Degree of intrusion into the Tree Protection Zone (TPZ) or Structural Root Zone (SRZ).

New Canopy Tree - means a canopy tree proposed to be planted. It must be a species and type that will, at maturity, have:

- an expected height of at least 6 metres above ground level; and
- an expected canopy diameter of at least 4 metres.

Over-Extension – Excessive branch length relative to attachment strength.

Pathogen – Disease-causing organism.

Phototropic Growth – Leaning or crown development in response to light availability.

Primary Disorder – Initial abnormal condition.

Pruning – Targeted removal for health, structure, or clearance.

Retention Value

- **High** – Significant tree with high amenity or ecological value.
- **Medium** – Valuable but less critical; retain where feasible.
- **Low** – Poor health/form/location; not a constraint.
- **Nil** – No landscape value; removal may be beneficial.

References

AS 4970-2009 Protection of trees on development sites

AS 4373 – 2007 – Pruning of Amenity Trees

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[52.37 CANOPY TREES Greater Geelong Planning Scheme - Ordinance](#)