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Report ID: 25\_099 / Version 4

PRELIMINARY ARBORICULTURAL REPORT  
& IMPACT ASSESSMENT - Version 4

297-307 Roslyn Road, Highton

## Preliminary Arboricultural Report & Impact Assessment Version 4

297-307 Roslyn Road, Highton

### Introduction

[REDACTED] has been engaged to undertake an inspection and report for the subject site, neighbouring property and street trees at 297-307 Roslyn Road, Highton.

This report is considered to be a 'Preliminary Tree Assessment' and a 'Preliminary Arboricultural Report' under the Australian Standard AS 4970:2025 *Protection of trees on development sites* and the purpose of this assessment is to provide quantitative and qualitative information on the trees and is the basis for deciding which trees are suitable for retention.

This report will provide comment on the individual site, neighbouring property and street trees in question and provide advice regarding the species, condition and suitability for retention of the existing site trees and also provide advice regarding the future management of the trees.

### Reviewed Documents & Plans

- [REDACTED] s - Subject Site Plan #TP002; September 2025

### Objectives

- To inspect the sites and existing trees located within site at 297-307 Roslyn Road, Highton including any nearby neighbouring property or street trees that may be impacted by the proposed development of the subject site.
- To collect data on the individual site, neighbouring property and street trees (where required) and provide a tree number plan that corresponds to the report tree data.
- To provide an arboricultural report that provides advice and solutions for the future management of the site, neighbouring property and street trees (as required).

### Method

- Trees or shrubs under 3.0 metres in height were not assessed as they do not meet the criteria for a 'tree' under the Australian Standard AS 4970-2009 *Protection of trees on development sites*.

- No aerial climbing assessment was done. No samples of tree or site soil were taken and no diagnostic testing was undertaken as part of this assessment.
- The diameter at breast height (DBH) of trees was measured using a diameter tape at 1.4m above ground level in accordance with AS-4970.
- Heights and spreads of canopies were measured using a laser height meter.
- Where direct access to the trees was not possible (eg: neighbouring property trees) DBH, heights and spreads have been estimated.
- Where leaves, buds and fruit of a tree are inaccessible, botanical identification is as accurate as is possible.

## Observations

The subject site is located at 297-307 Roslyn Road, Highton and the site inspection and assessment captured data on twelve (12) individual trees (or tree rows) including two (2) neighbouring property tree rows (#6 & #7). There are no street trees sited outside of the subject site.

There are a number of large mature Bhutan Cypress which provide the dominant tree character of the site. There are also 2 large Yellow Box and large mature examples of Prickly-leaf Paperbark and Flowering Gum. None of these trees are rated lower than 'Moderate' arboricultural/retention value.

## Discussion

### Local Government Vegetation Controls:

The project site is located within Neighbourhood Residential Zone – (NRZ8) of the Greater Geelong Planning Scheme. The site is subject to the following overlays:

Table 1: Vegetation Protection Controls

| <b>Vegetation Controls/<br/>Exemptions</b>     | <b>Applies to Site</b> | <b>Applies to Tree</b> | <b>Reason</b>                                  |
|------------------------------------------------|------------------------|------------------------|------------------------------------------------|
| Heritage Overlay (HO)                          | No                     | No                     | No Overlay on subject site                     |
| Significant Landscape Overlay (SLO)            | No                     | No                     | No Overlay on subject site                     |
| Environmental Significant Overlay (ESO)        | No                     | No                     | No Overlay on subject site                     |
| Vegetation Protection Overlay (VPO)            | No                     | No                     | No Overlay on subject site                     |
| Clause 52:12 'Bushfire Protection; Exemptions' | No                     | No                     | Site is not within a Bushfire Prone Area (BPA) |

| <b>Vegetation Controls/ Exemptions</b> | <b>Applies to Site</b> | <b>Applies to Tree</b> | <b>Reason</b>                                                                                                                                      |
|----------------------------------------|------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Clause 52:17 'Native Vegetation'       | No                     | No                     | All trees are considered to be planted or are Non-Victorian Native species                                                                         |
| <b>Clause 52:37 'Canopy Trees'</b>     | <b>Yes</b>             | <b>No</b>              | <b>A canopy tree is one that is greater than 5.0m in height with a canopy diameter greater than 4.0m and a trunk diameter of greater than 16cm</b> |
| Local Law or Significant Listing       | No                     | No                     | No Local Law                                                                                                                                       |

#### General Tree Retention Discussion:

The Australian Standard AS 4970:2025 Protection of trees on development sites has been used to calculate the NRZ (Nominal Root Zones) for the subject site and neighbouring property trees.

The NRZ is calculated based on trunk (stem) diameter (DSH: diameter at Standard Height), measured at ~1.4 metres up from ground level. The radius of the NRZ is calculated by multiplying the trees DSH by 12.

The method provides a NRZ that addresses both the stability and growing requirements of a tree. NRZ distances are measured as a radius from the centre of the trunk at (or near) ground level.

The Australian Standard AS 4970: 2025 Protection of trees on development sites identifies the *'The presence of existing or past structures, obstacles affecting root growth or recent encroachments'* and it is areas of NRZ that are currently covered by hard surfaces or buildings where tree root growth is unable to occur. Such areas should not be included in the final Tree Protection Specifications TPZ area and are not considered to be a current encroachment.

Encroachment into the NRZ is permissible under certain circumstances though is dependent on both site conditions and tree characteristics. Minor encroachment, up to 10% of the NRZ, is generally permissible provided encroachment is compensated for by recruitment of an equal area contiguous with the NRZ. Moderate encroachment (10-20%) will require a Project Arborist to undertake any necessary investigations (root investigation, etc.) to demonstrate how the tree will remain viable.

Major NRZ encroachment (<20%) will require a Project Arborist to explore alternative designs to demonstrate that the tree will remain viable. Relevant factors to be considered by the Project Arborist are:

- Location and distribution of the roots.
- The potential loss of root mass resulting from the encroachment: number and size of roots.
- Tree species and tolerance to root disturbance.

- If the works will result in a temporary (e.g. service trench) or permanent (e.g. basement car park) loss of available root zone.
- Age, health, current size and projected size of the tree.
- Presence of other trees with overlapping NRZ or grafter roots.
- Proposed staging and timing of excavation or root cutting.
- Proposed tree maintenance and tree care activities.
- Lean and stability of the tree.
- Soil characteristics and volume, topography and drainage.
- The presence of existing or past structures or obstacles affecting root growth or recent encroachments.
- Proposed construction measures that reduce the impact on trees.
- Whether a root investigation is requirements. Location and distribution of the roots to be determined through minimally destructive investigation methods (pneumatic, hydraulic, hand digging or ground penetrating radar). Photographs should be taken and a root zone map prepared.

The Structural Root Zone (SRZ) is a notional area required for tree stability. A larger area is required to maintain a viable tree. The SRZ formula does not apply to palms and other monocots, cycads and tree ferns. The SRZ shall be calculated when major encroachment (greater than 20%) into a NRZ is proposed.

Table 2: Discussion regarding the Neighbouring Property & Subject Site Trees:

| No | Common Name             | dbh (cm) | Age         | Value         | NRZs  | SRZs |
|----|-------------------------|----------|-------------|---------------|-------|------|
| 1  | BhutanCypress           | 35       | Maturing    | Moderate      | 4.2m  | 2.3m |
| 2  | BhutanCypress           | 35       | Maturing    | Moderate      | 4.2m  | 2.3m |
| 3  | BhutanCypress           | 35       | Maturing    | Moderate      | 4.2m  | 2.3m |
| 4  | Prickly-leaf Paperbark  | 50,50    | Mature      | Moderate      | 8.5m  | 3.1m |
| 5  | BhutanCypress           | 55       | Mature      | High          | 6.6m  | 2.6m |
| 6  | Callery Ornamental Pear | 15       | Semi-mature | Low-Moderate  | 2.0m  | 1.7m |
| 7  | Callery Ornamental Pear | 20       | Semi-mature | Low-Moderate  | 2.4m  | 1.8m |
| 8  | BhutanCypress           | 48       | Mature      | Moderate-High | 5.8m  | 2.7m |
| 9  | BhutanCypress           | 52       | Mature      | High          | 6.2m  | 2.8m |
| 10 | Yellow Box              | 52       | Maturing    | Moderate      | 6.2m  | 2.8m |
| 11 | Flowering Gum           | 65,60,55 | Mature      | Moderate      | 12.5m | 3.8m |
| 12 | Yellow Gum              | 115      | Mature      | Moderate-High | 13.8m | 3.6m |

## Tree Impact Assessment

The following assessment is based on a review of the current concept plans (#D1; June 2025) and the likely impact on the existing trees.

**Table 3: Tree Impact Assessment:**

| No | Common Name             | Construction Issues                         | Encroachment & Comments              |
|----|-------------------------|---------------------------------------------|--------------------------------------|
| 1  | BhutanCypress           | Outside development site                    | Retained; No impact                  |
| 2  | BhutanCypress           | Proposed car parking area within the NRZ    | 3.5 minor encroachment and no impact |
| 3  | BhutanCypress           | Outside development site                    | Retained; No impact                  |
| 4  | Prickly-leaf Paperbark  | To be removed for the current design        | Removed                              |
| 5  | BhutanCypress           | Building outside the NRZ                    | Retained; No impact                  |
| 6  | Callery Ornamental Pear | Neighbouring property tree; to be protected | 0% encroachment and no impact        |
| 7  | Callery Ornamental Pear | Neighbouring property tree; to be protected | 0% encroachment and no impact        |
| 8  | BhutanCypress           | Outside development site                    | Retained; No impact                  |
| 9  | BhutanCypress           | Outside development site                    | Retained; No impact                  |
| 10 | Yellow Box              | Outside development site                    | Retained; No impact                  |
| 11 | Flowering Gum           | Outside development site                    | Retained; No impact                  |
| 12 | Yellow Gum              | Outside development site                    | Retained; No impact                  |

### Tree Retention & Removal:

- Both neighbouring property tree rows will be retained and protected during demolition and construction.
- Subject site trees #3 & #5 will be retained and protected.
- The only tree proposed to be removed as part of this proposal is tree #4, Prickly-leaf Paperbark.

**Standard Tree Protection Measures:**

Appendix 1 lists the standard tree protection works that should be considered as part of the management of trees to be retained during development and these works should be seen as a minimum standard to apply.



## Appendix 1: Tree Protection During Development

The following are guidelines that must be implemented to minimise the impact of the proposed construction works on the retained trees.

- The Tree Protection Zone (TPZ) is fenced and clearly marked at all times. This fence should deter the placement of building materials, entry of heavy equipment and vehicles and also the entry of workers and/or the public into the TPZ. Australian Standard AS 4687 - 2007 *Temporary fencing and hoardings*, specifies appropriate fencing requirements. Existing perimeter fencing can be incorporated into the protective fencing. Shade cloth should be attached to reduce the movement of dust and other particulates into the TPZ. Signs identifying the TPZ are to be placed on the fencing.
- If the area within the TPZ is to be accessed during the construction phase then the area will need ground protection. Measures may include a permeable membrane, such as a geotextile, to cover the TPZ area beneath a 100 mm layer of crushed rock below rumble boards.
- Contractors and site workers should receive written and verbal instruction as to the importance of tree protection and preservation within the site. Successful tree preservation occurs when there is a commitment from all relevant parties involved in designing, constructing and managing a development project.
- The Project Arborist is on-site to supervise excavation works around the existing trees where the TPZ will be encroached.
- There is no immediate requirement for mulching within the TPZ. There is benefit to maintaining existing site conditions within the TPZ and is more analogous to proposed completion conditions. Monitoring of the trees in-line with prevailing weather conditions will indicate if mulching will be required. The same approach is to be used in providing supplemental irrigation.
- No persons, vehicles or machinery to enter the TPZ without the consent of the consulting arborist or site manager.
- Any underground service installations within the allocated TPZ should be bored and utility authorities should common trench where possible.
- No fuel, oil dumps or chemicals shall be allowed in or stored on the TPZ and the servicing and refuelling of equipment and vehicles should be carried out away from the root zones. No storage of material, equipment or temporary building should take place over the root zone of the tree. Nothing whatsoever should be attached to the tree including temporary services wires, nails, screws or any other fixing device.
- Any pruning that is required must be carried out by trained and competent arborist who has a thorough knowledge of tree physiology and pruning methods and carry out pruning to the Australian Standard – AS 4373 – 2007 *Pruning of Amenity Trees*.
- All excavation within the Tree Protection Zone must be carried out by hand digging or with the use of 'NDD-Excavation' techniques and only when supervised by the Project Arborist. Where the Project Arborist identifies roots to be pruned within the TPZ, they should be pruned with a final cut to undamaged wood. Pruning cuts should be made with sharp tools such as secateurs, pruners, handsaws or chainsaws. It is not acceptable for roots within the TPZ to be 'pruned' with machinery such as backhoes or excavators.

| No | Species                        | Common Name             | DSH      | DAB | H x S   | Health    | Structure | Age         | Arb Value     | NRZ   | SRZ  | Origin           | Comments                           |
|----|--------------------------------|-------------------------|----------|-----|---------|-----------|-----------|-------------|---------------|-------|------|------------------|------------------------------------|
| 1  | <i>Cupressus torulosa</i>      | BhutanCypress           | 35       | 40  | 12 x 3  | Fair      | Fair      | Maturing    | Moderate      | 4.2m  | 2.3m | Exotic Conifer   |                                    |
| 2  | <i>Cupressus torulosa</i>      | BhutanCypress           | 35       | 40  | 12 x 3  | Fair      | Fair      | Maturing    | Moderate      | 4.2m  | 2.3m | Exotic Conifer   |                                    |
| 3  | <i>Cupressus torulosa</i>      | BhutanCypress           | 35       | 40  | 12 x 3  | Fair      | Fair      | Maturing    | Moderate      | 4.2m  | 2.3m | Exotic Conifer   |                                    |
| 4  | <i>Melaleuca styphelioides</i> | Prickly-leaf Paperbark  | 50,50    | 85  | 11 x 9  | Fair      | Poor      | Mature      | Moderate      | 8.5m  | 3.1m | Aust. Native     | bifurcation at base                |
| 5  | <i>Cupressus torulosa</i>      | BhutanCypress           | 55       | 55  | 14 x 6  | Fair      | Fair      | Mature      | High          | 6.6m  | 2.6m | Exotic Conifer   |                                    |
| 6  | <i>Pyrus calleryana</i>        | Callery Ornamental Pear | 15       | 20  | 6 x 2   | Fair-Poor | Poor      | Semi-mature | Low-Moderate  | 2.0m  | 1.7m | Exotic Deciduous | neighbouring tree row x 4          |
| 7  | <i>Pyrus calleryana</i>        | Callery Ornamental Pear | 20       | 25  | 8 x 3   | Fair-Poor | Poor      | Semi-mature | Low-Moderate  | 2.4m  | 1.8m | Exotic Deciduous | neighbouring tree row x 5          |
| 8  | <i>Cupressus torulosa</i>      | BhutanCypress           | 48       | 60  | 15 x 6  | Fair-Poor | Fair-Poor | Mature      | Moderate-High | 5.8m  | 2.7m | Exotic Conifer   | some decline                       |
| 9  | <i>Cupressus torulosa</i>      | BhutanCypress           | 52       | 70  | 15 x 6  | Fair      | Fair      | Mature      | High          | 6.2m  | 2.8m | Exotic Conifer   |                                    |
| 10 | <i>Eucalyptus melliodora</i>   | Yellow Box              | 52       | 70  | 18 x 14 | Fair-Poor | Fair      | Maturing    | Moderate      | 6.2m  | 2.8m | Vic. Native      |                                    |
| 11 | <i>Corymbia ficifolia</i>      | Flowering Gum           | 65,60,55 | 140 | 7 x 8   | Fair-Poor | Fair-Poor | Mature      | Moderate      | 12.5m | 3.8m | Aust. Native     | some decline                       |
| 12 | <i>Eucalyptus melliodora</i>   | Yellow Gum              | 115      | 120 | 19 x 20 | Fair-Poor | Poor      | Mature      | Moderate-High | 13.8m | 3.6m | Vic. Native      | multiple leader bifurcations at 2m |

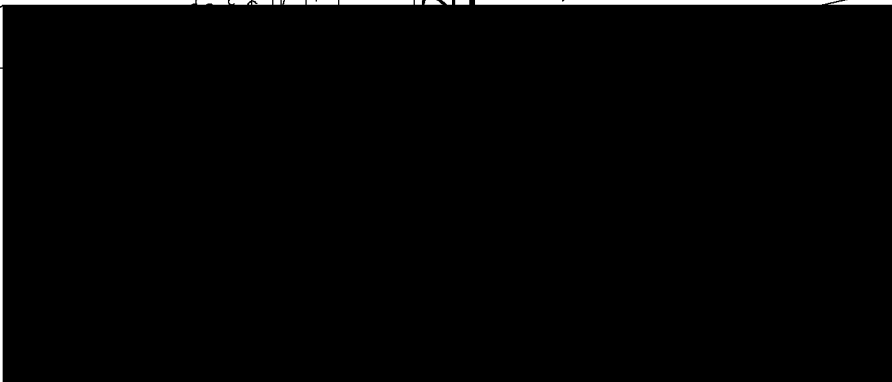
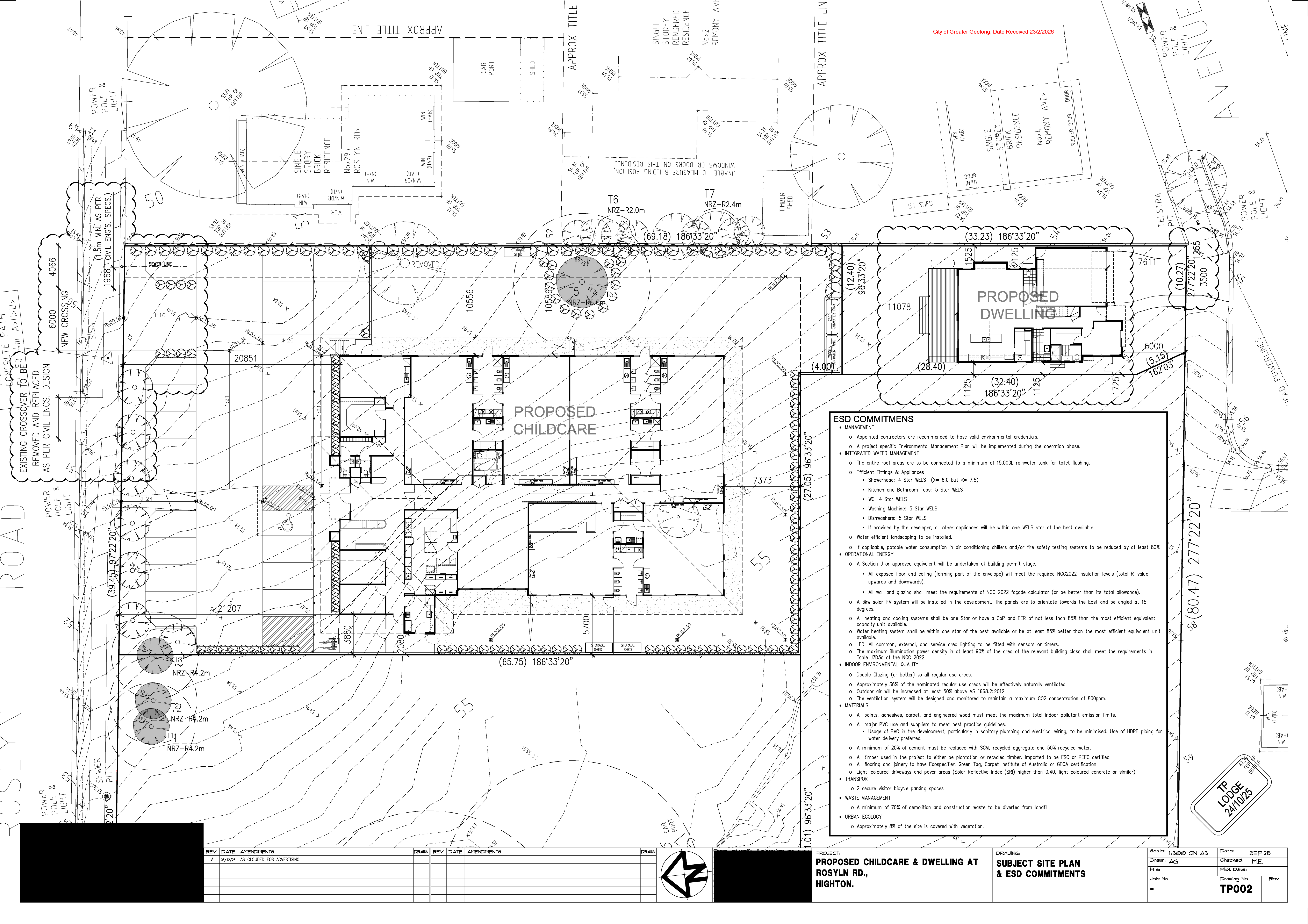
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CONCRETE PATH  
RL 50.74m A.H.D.

LOT 1 ON  
LP 95274  
7053m<sup>2</sup>

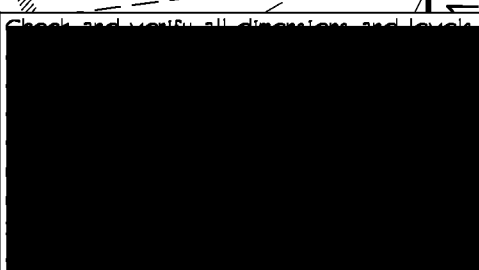
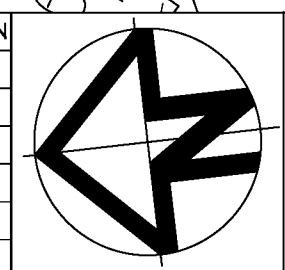
LOT 2 ON  
LP 95274  
1187m<sup>2</sup>

RETE KERB & POLE &  
E OF BITUMEN ROAD LIGHT

# AVENUE



| REV. | DATE     | AMENDMENTS                 | DRAWN | REV. | DATE | AMENDMENTS | DRAWN |
|------|----------|----------------------------|-------|------|------|------------|-------|
| A    | 03/12/25 | AS CLOUDED FOR ADVERTISING |       |      |      |            |       |
|      |          |                            |       |      |      |            |       |
|      |          |                            |       |      |      |            |       |
|      |          |                            |       |      |      |            |       |
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|      |          |                            |       |      |      |            |       |
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|      |          |                            |       |      |      |            |       |
|      |          |                            |       |      |      |            |       |



PROJECT:  
**PROPOSED CHILDCARE & DWELLING AT ROSLYN RD., HIGHTON.**

DRAWING:  
**SUBJECT SITE PLAN & ESD COMMITMENTS**

|                    |               |
|--------------------|---------------|
| Scale: 1:300 ON A3 | Date: SEP'25  |
| Drawn: AG          | Checked: M.E. |
| File:              | Plot Date:    |
| Job No.            | Drawing No.   |
|                    | <b>TP002</b>  |
|                    | Rev.          |



**TREES #1, #2 & #3**



City of Greater Geelong, Date Received 23/2/2026

**TREE #4**



**TREE #5**



**NEIGHBOURING TREE ROW #6**



**NEIGHBOURING TREE ROW #7**



**TREE #8**



**TREE #9**



**TREE #10**



**TREE #11**



**TREE #12**

## Tree Descriptors - Version 11 (June 2021)

The typical assessment of a tree evaluates the factors of health and structure. The descriptors of health and structure attributed to a tree evaluate the individual specimen as compared to what could be considered [typical for that species growing in its location](#). The two factors are completely separate and it is possible to have a tree in good health with very poor structure or, conversely, a tree in very poor health with good structure. These two factors are used as a guide to the overall tree condition at the time of inspection.

### Tree No:

A unique identifier, normally a number and often associated with a plan or map reference and used to identify an individual tree or tree group.

### Species:

Provides botanical name, (genus, species, variety and cultivar) according to accepted international codes of taxonomic classification (where possible).

### Common Name:

Provide the most well-known non-scientific name by which the tree is generally known.

### DBH (trunk diameter, measured at 1.4m from ground):

Indicates the trunk diameter (expressed in centimetres) of an individual tree measured at 1.4m above the existing ground level. Multi-stemmed trees may be measured below the 1.4m or at the tree base. DBH measurements are usually undertaken with foresters diameter tape or builders tape.

It is used to calculate the Tree Protection Zone (TPZ) as outlined in the Australian Standard AS 4970-2009 *Protection of trees on development sites*.

DBH in the tree data followed by an \* are where the dbh has been estimated due to not having access to the tree (usually neighbouring properties).

### Basal Trunk Diameter:

This is the trunk diameter measured as the base of the trunk immediately above the root buttress or trunk flare. It is used to calculate the Structural Root Zone (SRZ) as outlined in the Australian Standard AS 4970-2009 *Protection of trees on development sites*.

### H x W (Height x Width or Canopy Spread):

Indicates the height and width of the individual tree; dimensions are expressed in metres. Height is measured with a clinometer/height-meter where possible. Tree heights may be estimated in line with previous clinometer readings in conjunction with author's experience. Crown widths are generally paced (estimated) at the widest axis or averaged.

**Tree Type:**

Describes the general geographic origin of the species and its type (e.g. deciduous or evergreen).

| Category          | Description                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------|
| Indigenous        | Occurs naturally in the area or region of the subject site                                         |
| Victorian native  | Occurs naturally within some part of the State of Victoria (not exclusively) but is not indigenous |
| Australian native | Occurs naturally within Australia but is not a Victorian native or indigenous                      |
| Exotic deciduous  | Occurs outside of Australia and typically sheds its leaves during winter                           |
| Exotic evergreen  | Occurs outside of Australia and typically holds its leaves all year round                          |
| Exotic conifer    | Occurs outside of Australia and is classified as a gymnosperm                                      |
| Native conifer    | Occurs naturally within Australia and is classified as a gymnosperm                                |
| Palm              | Woody monocotyledon                                                                                |

**Age:**

Relates to the physiological stage of the tree's life cycle.

| Category    | Description                                                                      |
|-------------|----------------------------------------------------------------------------------|
| Young       | Sapling tree and/or recently planted                                             |
| Semi-mature | Tree rapidly increasing in size and yet to achieve expected size in situation    |
| Maturing    | Specimen approaching expected size in situation, with reduced incremental growth |
| Mature      | Specimen at its expected size in its situation                                   |
| Over-mature | Tree is over-mature and in decline                                               |
| Dead        | Tree is dead                                                                     |

**Health:**

Assesses a range of attributes to describe the overall health of the tree.

| Category     | Growth Indicators | Decline symptoms/<br>Deadwood  | Foliage density,<br>colour, size, intact-<br>ness | Pests and/or disease              |
|--------------|-------------------|--------------------------------|---------------------------------------------------|-----------------------------------|
| Good         | Above typical     | None or minimal                | Better than typical                               | None or minimal                   |
| Fair         | Typical           | Typical or expected            | Typical                                           | Typical, within damage thresholds |
| Fair to Poor | Below typical     | More than typical              | Exhibiting deficiencies                           | Exceeds damage thresholds         |
| Poor         | Minimal           | Considerable amount/<br>size   | Exhibiting severe defi-<br>ciencies               | Contributing to decline           |
| Very Poor    | Below minimal     | Significant amount and<br>size | Significantly below typi-<br>cal                  | Extreme                           |
| Dead         | N/A               | N/A                            | N/A                                               | N/A                               |

**Structure:**

Assesses principal components of tree structure.

| Descriptor | Root plate & lower stem                                                          | Trunk                                                                                         | Primary branch support                                                                                              | Outer crown and roots                                                                                     | Lean from vertical                                      |
|------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Good       | No damage, disease or decay; obvious basal flare / stable in ground              | No damage, disease or decay; well tapered                                                     | Well formed, attached, spaced and tapered                                                                           | No damage, disease, decay or structural defect                                                            | Low or none                                             |
| Fair       | Minor damage or decay                                                            | Minor damage or decay                                                                         | Typically formed, attached, spaced and tapered                                                                      | Minor damage, disease or decay; minor branch end-weight or over-extension                                 | Minor / natural                                         |
| Poor       | Moderate damage or decay; minimal basal flare                                    | Moderate damage or decay; approaching recognised thresholds                                   | Weak, decayed or with acute branch attachments; previous branch failure evidence                                    | Moderate damage, disease or decay; moderate branch end-weight or over-extension                           | Moderate                                                |
| Very Poor  | Major damage, disease or decay; fungal fruiting bodies present                   | Major damage, disease or decay; exceeds recognised thresholds; fungal fruiting bodies present | Decayed, cavities or has acute branch attachments with included bark; excessive compression flaring; failure likely | Major damage, disease or decay; fungal fruiting bodies present; major branch end-weight or over-extension | Acute                                                   |
| Hazardous  | Excessive damage, disease or decay; unstable / loose in ground; failure probable | Excessive damage, disease or decay; cavities                                                  | Decayed, cavities or branch attachments with active split; failure imminent                                         | Excessive damage, disease or decay; excessive branch end-weight or over-extension                         | Excessive – root plate failure or stem failure probable |

The lowest or worst descriptor assigned to the tree in any column is generally the overall rating assigned to the tree. The assessment for structure is limited to observations of external and above ground tree parts. It does not include any exploratory assessment of underground or internal tree parts unless this is requested as part of the investigation.

Trees are assessed and given a rating for a point in time. Generally, trees with a poor or very poor structure are beyond the benefit of practical arboricultural treatments. The management of trees in the urban environment requires appropriate arboricultural input and consideration of risk.

**Arboricultural / Retention Value Rating:**

Relates to the combination of previous tree rating factors, including health, structure and form (arboricultural merit), and also conveys an amenity value. This rating relates to the trees biological, functional and aesthetic characteristics within an urban landscape context.

| Category     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Significant  | Tree of better than high quality and will be an outstanding example of the species due to factors such as age, size, outstanding example, rare in cultivation, etc.<br>Retention of these trees should be a priority for the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| High         | Tree of high quality in good to fair condition. Generally a prominent arboricultural feature.<br>Tree is capable of tolerating changes in its environment.<br>These trees have the potential to be a medium to long-term component of the landscape if managed appropriately. Retention of these trees is highly desirable.                                                                                                                                                                                                                                                                                                                                                           |
| Moderate     | Tree of moderate quality, in fair or better condition. Generally contributes to the landscape.<br>Tree may have a condition, and or structural problem that will respond to arboricultural treatment. Tree is capable of tolerating changes in its environment.<br>These trees have the potential to be a medium to long-term component of the landscape if managed appropriately. Retention of these trees is generally desirable.                                                                                                                                                                                                                                                   |
| Low-Moderate | Trees with indicators that sit between Low and Moderate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Low          | Tree of low quality and/or little amenity value. Tree in poor health and/or with poor structure.<br>Tree unlikely to respond positively to changes in its environment and does not warrant design modification to preserve it. Tree may be beyond the benefit of practical arboricultural treatments.<br><br>Tree is not significant for its size and/or young. These trees are easily replaceable.<br>Tree (species) is functionally inappropriate to specific location and would be expected to be problematic if retained.<br><br>Retention of such trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location. |
| None         | Tree has a severe structural defect and/or health problem that cannot be sustained with practical arboricultural techniques and the loss of tree would be expected in the short term.<br>Tree whose retention would be impractical after the removal of adjacent trees (includes trees that have developed in close spaced groups and would not be expected to acclimatise to severe alterations to surrounding environment – removal of adjacent shelter trees)<br>Tree has a detrimental effect on the environment, for example, the tree is a woody weed.<br>These trees should be removed on the basis of sound arboricultural management.                                        |

### Useful Life Expectancy

Assessment of useful life expectancy provides an indication of health and tree appropriateness and involves an estimate of how long a tree is likely to remain in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk to the community.

The assessment is based on the site conditions not being significantly altered and that any prescribed maintenance works are carried out (site conditions are presumed to remain relatively constant and the tree would be maintained under scheduled maintenance programs).

| ULE Rating   | Description                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| < 1 year     | Tree may be dead or mostly dead. Tree may exhibit major structural faults. Tree may be an imminent failure hazard. Excessive infrastructure damage with high risk potential that cannot be remedied.                                                                                                                                                                                                           |
| 1 - 5 years  | Tree is exhibiting severe chronic decline. Crown is likely to be less than 50% typical density. Crown may be mostly epicormic growth. Dieback of large limbs is common (large dead-wood may have been pruned out). Over-mature and senescing. Infrastructure conflicts with heightened risk potential. Tree has outgrown site constraints.                                                                     |
| 6 - 10 years | Tree is exhibiting chronic decline. Crown density will be less than typical and epicormic growth is likely to present. The crown may still be mostly entire, but some dieback is likely to be evident. Dieback may include large limbs. Over-mature and senescing or early decline symptoms in short-lived species. Early infrastructure conflicts with potential to increase regardless of management inputs. |
| 10-25 years  | Trees displaying normal growth characteristics. Tree may be growing in restricted environment (e.g. streetscapes) or may be in late maturity.<br>Tree may be growing in restricted environment (e.g. streetscapes) or may be in late maturity.                                                                                                                                                                 |
| 25+ years    | Generally juvenile and semi-mature trees exhibiting normal growth characteristics in parks or open space. Could also be maturing, long-lived trees. Tree well suited to the site with negligible potential for infrastructure conflicts.                                                                                                                                                                       |

## Tree Risk Assessment

A primary goal of tree risk assessment is to provide information about the level of risk posed by a tree over a specific time period. This is accomplished in qualitative tree risk assessment by first determining the categories for likelihood and consequences of tree failure. These factors are determined by:

1. Evaluating the structural conditions that may lead to failure; the potential loads on the tree; and the trees' adaptations to weaknesses—to determine the likelihood of failure.
2. Evaluating the likelihood that a tree or branch could strike people or property or disrupt activities.
3. Assessing the injury, damage or disruption—to estimate the consequences of failure.

A matrix-based, qualitative approach to tree risk assessment is used to define the level of risk. The factors collected during the tree assessment, particularly with regard to the tree's structure, are used in this determination.

The risk category is then compared to the level of risk that is acceptable to the client, controlling authority, or societal standards. If the risk category defined for the tree risk exceeds the level of acceptable risk, mitigation is recommended.

### Risk Assessment Matrix

| Likelihood of Failure          | Likelihood of Failure (Target/Consequence) |                 |          |             |
|--------------------------------|--------------------------------------------|-----------------|----------|-------------|
|                                | Unlikely                                   | Somewhat Likely | Likely   | Very Likely |
| Imminent (Very Poor Structure) | Low                                        | Moderate        | High     | Extreme     |
| Probable (Poor Structure)      | Low                                        | Moderate        | High     | High        |
| Possible (Fair-Poor Structure) | Low                                        | Low             | Moderate | Moderate    |
| Improbable (Fair Structure)    | Low                                        | Low             | Low      | Low         |

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