



# Arboricultural Impact Assessment and Development Impact Report

Site: Stirling Golf Club, 35 Golflinks Road, Stirling

Date: Tuesday, 6 December 2022

ATS6360-035GoIRdDIR R1

## Contents

Executive Summary .....	1
Brief .....	2
Documents and Information Provided .....	2
Site Location.....	3
Methodology.....	4
Assessment.....	5
Tree Assessment.....	5
Legislative Assessment.....	6
Retention Assessment.....	6
Encroachment and Impact Assessment.....	7
Conclusion.....	8
Recommendation.....	8
Definitions.....	9
References.....	9

Appendix A - Tree Assessment Methodology

Appendix B - Tree Assessment Findings

Appendix C - Mapping

Appendix D - Tree Assessment Summary

Appendix E - Tree Protection Zone Guidelines

Report Reference Number: ATS6360-035GoIRdDIR R1

Report prepared for  
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## Executive Summary

Arborman Tree Solutions has assessed the trees in the area of and potentially impacted by the proposed accommodation pods at Stirling Golf Club, 35 Golflinks Road, Stirling. The assessment has identified the potential impacts to the trees from the proposed development and supporting infrastructure and recommended mitigation strategies where appropriate. The proposal involves the construction of a multi-level hotel, specialised pod style private retreatments, adaptive reuse of the existing perfumery, a new Golf Course Facilities Building, additional car parking, access, and waste management facilities. This assessment provides recommendations in accordance with Australian Standard AS4970-2009 *Protection of trees on development sites* (AS4970-2009).

The assessment considered forty seven trees which are identified as a mix of two indigenous species and one specimen of an exotic species. These trees, with the exception of Tree 101, are naturally occurring indigenous vegetation, Tree 101 is an exotic species that appears to have been planted as part of the landscaping of the area.

The majority of trees are considered to be in good (12) or fair (16) overall condition and have extended useful life expectancies. However, there are also nineteen trees displaying poor overall condition as evidenced by reduced health (15) and/or structural (7) attributes; these trees are potentially not suitable for long-term retention in this type of development.

The assessment has identified the forty six of the trees as naturally occurring indigenous vegetation in an area subject to regulation under the *Native Vegetation Act 1991* and their management is therefore controlled under this Act. A number of these trees also have a trunk circumference greater than two metres however they are exempt from control under the *PDI Act* as per Regulation 3F Sub Regulation (4)(d) as they are controlled under the *Native Vegetation Act 1991* and cannot be removed without consent from the *Native Vegetation Council*.

The remaining tree, Tree 101, is exempt from control under both the *Native Vegetation Act 1991* and the *Planning, Development and infrastructure Act 2016* due to being an exotic and exempt species, respectively.

The Arboricultural Impact Assessment has identified that seventeen trees in the area of the proposed development are likely to be negatively impacted by the proposed works and require removal. As fourteen of these trees have a Moderate or Low Retention Rating and do not display attributes that indicate they should be protected their removal to accommodate expected development is reasonable. However, three trees, Trees 43, 45 and 48 have a High Retention Rating and display attributes that indicate they should be protected, redesign has been considered to prevent substantial damage to these three trees however due to the constraints of the site and the bushfire mitigation requirements it is not possible to retain them.

Additionally, there are thirty trees that are unlikely to be negatively impacted by the planned works. The encroachment is less than 10% of the TPZ area, within an existing encroachment and/or low impact construction methodologies have been incorporated into the design; it is therefore unlikely that the proposed works will impact on the viability of this tree.

**Note:** *the tree numbers in this report have been aligned with the numbering system used in the EBS Scattered Tree Assessment and therefore they differ from the original Preliminary Tree Assessment tree numbering system. However the EBS assessment did not consider the tree Arborman originally numbered Tree 1 and the EBS Tree 6 includes two trees from the Arborman PTA, Trees 2 and 3; to accommodate this Tree 1 is now Tree 101 and the two Tree 6's are identified as Trees 602 and 603.*

## Brief

Arborman Tree Solutions was engaged by Trice - Project and Development Managers to undertake an Arboricultural Impact Assessment and provide a Development Impact Report for the identified trees at Stirling Golf Club, 35 Golflinks Road, Stirling. The purpose of the Arboricultural Impact Assessment and Development Impact Report is to identify potential impacts the proposed development will have on the trees and provide mitigation strategies to minimise the impact where appropriate.

The proposed development includes the construction of a multi-level hotel, specialised pod style private retreatments, adaptive reuse of the existing perfumery, a new Golf Course Facilities Building, additional car parking, access, and waste management facilities. This assessment will determine the potential impacts the proposal may have on the trees within the site and recommend impact mitigation strategies in accordance with Australian Standard AS4970-2009 *Protection of trees on development sites* (AS4970-2009) for trees to be retained.

In accordance with section 2.2 of the AS4970-2009 the following information is provided:

- Assessment of the general condition and structure of the subject trees.
- Identification of the legislative status of trees on site as defined in the *Planning, Development and Infrastructure Act 2016 (PDI Act 2016)* and the *Native Vegetation Act 1991*.
- Identify and define the Tree Protection Zone and Structural Root Zone for each tree.
- Identify potential impacts the development may have on tree health and/or stability.
- Recommend impact mitigation strategies in accordance with AS4970-2009 for trees to be retained.
- Provide information in relation to the management of trees.

## Documents and Information Provided

The following information was provided for the preparation of this assessment

- Email instruction on Scope of Works
- Design Drawings
- Preliminary Tree Assessment ATS6360-035GolRdPTA
- Extracts from the EBS Scattered Tree Assessment

**Note:** *the tree numbers in this report have been aligned with the numbering system used in the EBS Scattered Tree Assessment and therefore they differ from the original Preliminary Tree Assessment tree numbering system. However the EBS assessment did not consider the tree Arborman originally numbered Tree 1 and the EBS Tree 6 includes two trees from the Arborman PTA, Trees 2 and 3; to accommodate this Tree 1 is now Tree 101 and the two Tree 6's are identified as Trees 602 and 603.*



## Site Location

The trees are located in the identified area to the northwest of the carpark, Clubhouse and associated buildings.



Figure 1: Site location – Stirling Golf Club, 35 Golflinks Road, Stirling

## Methodology

The proposed design was reviewed in association with the information supplied in the in the Preliminary Tree Assessment, ATS6360-035GolRdPTA, and in the Design Drawings and CAD files as provided by Trice - Project and Development Managers.

The potential impact of the proposed works on tree condition is considered in accordance with the guidelines in AS4970-2009 *Protection of trees on development sites* (AS4970-2009). When determining potential impacts of an encroachment into a Tree Protection Zone (TPZ), the following should be considered as outlined in AS4970-2009 section 3.3.4 *TPZ encroachment considerations*.: -

- a) Location of roots and root development.
- b) The potential loss of root mass from the encroachment.
- c) Tree species and tolerance to root disturbance.
- d) Age, vigour and size of the tree.
- e) Lean and stability of the tree.
- f) Soil characteristics and volume, topography, and drainage.
- g) The presence of existing or past structures or obstacles affecting root growth.
- h) Design factors.

The impacts on a tree can be varied and are not necessarily consistent with or directly correlated to a particular level of encroachment, to assist in providing consistency the levels of impact have been classified into the following categories: -

- No Impact - no encroachment into the TPZ has been identified.
- Low <10% - the identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.
- Low >10% - the identified encroachment is greater than 10% of the TPZ area however there are factors that indicate the proposed development will not negatively impact tree viability.
- High >10% - the identified encroachment is greater than 10% of the TPZ area and factors are present that indicate the proposed development will negatively impact tree viability. The impact is likely to lead to the long-term decline of the tree however it is unlikely to impact on its short-term stability.
- Conflicted - the identified encroachment is greater than 10% of the TPZ area and in most cases will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'Low' have features or considerations identified in clauses in AS4970-2009 3.3.4 *TPZ encroachment considerations* which indicate these trees will be sustainable.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'High' do not have any features or considerations identified in clauses in AS4970-2009 3.3.4 and therefore alternative design solutions, additional root investigations and/or tree sensitive construction measures are required if the tree is to be retained. Where alternative protection methodologies are not available tree removal may be required to accommodate the development.

Trees with an Impact identified as 'Conflicted' are impacted over the majority of their root zone and/or over the SRZ or on the trunk, additional root investigations or tree sensitive construction measures are not available, and the only option is alternative designs or tree removal.

Regulatory Status, Tree Protection Zones and Development Impacts are shown in Appendix B.

## Assessment

Arborman Tree Solutions was engaged by Trice - Project and Development Managers to undertake an Arboricultural Impact Assessment and provide a Development Impact Report for the trees in the area of and potentially impacted by the proposed accommodation pods at Stirling Golf Club, 35 Golflinks Road, Stirling. The purpose of the Arboricultural Impact Assessment and Development Impact Report is to identify potential impacts the proposed development will have on the trees and provide mitigation strategies to minimise impact where appropriate. The proposal involves the construction of a multi-level hotel, specialised pod style private retreatments, adaptive reuse of the existing perfumery, a new Golf Course Facilities Building, additional car parking, access, and waste management facilities. This assessment provides recommendations in accordance with Australian Standard AS4970-2009 *Protection of trees on development sites* (AS4970-2009).

**Note:** *the tree numbers in this report have been aligned with the numbering system used in the EBS Scattered Tree Assessment and therefore they differ from the original Preliminary Tree Assessment tree numbering system. However the EBS assessment did not consider the tree Arborman originally numbered Tree 1 and the EBS Tree 6 includes two trees from the Arborman PTA, Trees 2 and 3; to accommodate this Tree 1 is now Tree 101 and the two Tree 6's are identified as Trees 602 and 603.*

### Tree Assessment

The assessment considered forty seven trees which are identified as a mix of two indigenous species and one specimen of an exotic species as shown in Table 1 below. These trees, with the exception of Tree 101, are naturally occurring indigenous vegetation, Tree 101 is an exotic species that appears to have been planted as part of the landscaping of the area.

Table 1 – Tree Identification

Botanic Name	Common Name	Number of Trees	Origin	Tree Numbers
<i>Eucalyptus obliqua</i>	Messmate Stringy-bark	16	Indigenous	7, 10, 15, 21, 22, 26, 38, 43, 46, 48, 50, 52, 55-57 and 59
<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna Gum	30	Indigenous	9, 12-14, 19, 24, 25, 28-37, 39-42, 45, 47, 53, 54, 58, 60, 61, 602 and 603
<i>Robinia pseudoacacia</i>	Black Locust	1	Exotic	101

The majority of trees are considered to be in good (12) or fair (16) overall condition and have extended useful life expectancies. However, there are also nineteen trees displaying poor overall condition as evidenced by reduced health (15) and/or structural (7) attributes; these trees are potentially not suitable for long-term retention in this type of development.

Table 2 – Tree Condition

Condition	Number of Trees	Tree Numbers
Good	12	7, 9, 24, 37, 42, 45, 48, 53, 54, 56, 60 and 603
Fair	16	13, 19, 25, 28, 35, 36, 39, 40, 43, 46, 47, 52, 55, 58, 59 and 602
Poor	19	10, 12, 14, 15, 21, 22, 26, 29-34, 38, 41, 50, 57, 61 and 101

Findings on individual tree health and condition are presented in Appendix B - Tree Assessment Findings.

### **Legislative Assessment**

The assessment has identified the forty six of the trees as naturally occurring indigenous vegetation in an area subject to regulation under the *Native Vegetation Act 1991* and their management is therefore controlled under this Act. A number of these trees also have a trunk circumference greater than two metres however they are exempt from control under the *PDI Act* as per Regulation 3F Sub Regulation (4)(d) as they are controlled under the *Native Vegetation Act 1991* and cannot be removed without consent from the *Native Vegetation Council*.

Table 3 - Legislative Status

Legislative Status	Number of Trees	Tree Numbers
Exempt	1	101
Controlled	46	7, 9, 10, 12-15, 19, 21, 22, 24-26, 28-43, 45-48, 50, 52-61, 602 and 603

The remaining tree, Tree 101, is exempt from control under both the *Native Vegetation Act 1991* and the *Planning, Development and Infrastructure Act 2016* due to being an exotic and exempt species, respectively.

### **Retention Assessment**

Trees that provide important environmental and/or aesthetic contribution to the area, are in good condition scored a High Retention Rating and conservation of these trees is encouraged. Trees that score a Moderate Retention Rating provide a level of environmental and/or aesthetic benefit however not to an important level; these trees should be retained if they can be adequately protected. Trees identified as not suitable for retention or attained a Low Tree Retention Rating, displayed one or a number of the following attributes:

- a) provide limited environmental/aesthetic benefit,
- b) short lived species,
- c) represent a material risk to persons or property,
- d) identified as causing or threatening to cause substantial damage to a structure of value,
- e) limited Useful Life Expectancy.
- f) young and easily replaced.

There are twenty-seven trees that are considered to be suitable for retention as they achieved a High or Moderate Retention Rating. The fourteen trees that scored a High rating, display one or more aesthetic and/or environmental criteria that warrant their retention as important trees. However, the thirteen trees that scored a Moderate rating, whilst providing a level aesthetic and/or environmental benefit they do not do so to a level that identifies them as important trees; they are however worthy of consideration for retention if they can be adequately protected in an otherwise reasonable and expected development.

The remaining trees achieve a Low Retention Rating indicating they should not form a constraint to an otherwise reasonable and expected development.

Table 4 Retention Rating

Retention Rating	Number of Trees	Tree Numbers
High	14	9, 19, 24, 25, 28, 37, 42, 43, 45-48, 53 and 58
Moderate	13	13, 36, 38-40, 52, 54-56, 59, 60, 602 and 603
Low	20	7, 10, 12, 14, 15, 21, 22, 26, 29-35, 41, 50, 57, 61 and 101



## Encroachment and Impact Assessment

Within AS4970-2009 relevant information is provided to assist with determining the impact on trees when developing in close proximity to them. Any tree that requires protection should be retained whilst remaining viable during and post development. Further guidance on how to suitably manage any proposed or encountered encroachments is identified in AS4970-2009. When assessing potential impacts, a Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) are the principle means of protecting a tree and are provided in accordance with AS4970-2009 section 1.4.5 and 3.2. This standard has been applied to ensure trees identified for retention remain viable and the redevelopment is achievable.

There is no encroachment into the TPZ of ten trees and therefore there is not expected to be any impact on the long-term viability of these trees as a result of the proposed development. The encroachment for the eleven trees is less than 10% of the TPZ area and does not impact the SRZ, this type of encroachment is recognised as 'Minor' as defined in AS4970-2009 (See Appendix C - Mapping). This level of encroachment results in No or Low Impact and additional root investigations are not required, warranted and have not been recommended in this instance.

The encroachment for nine is greater than 10% of the total TPZ area and is therefore classified as a 'Major Encroachment' as defined in AS4970-2009. AS4970-2009 also identifies relevant factors that should be considered when determining the 'impact' of encroachments such as this; these considerations are listed under section 3.3.4 *TPZ encroachment considerations*. When considering these factors, the proposed encroachment is unlikely to result in tree damaging activity that will result in the decline, death or failure of the trees and is therefore considered to be a Low Impact.

The following discusses the relevant factors of AS4970-2009 section 3.3.4 *TPZ encroachment considerations* for this tree OR these trees OR this tree group: -

- 3.3.4 (g), *The presence of existing or past structures or obstacles affecting root growth.*  
The existing path/road encroachment into the TPZ of the trees along the path has been in place or used for a number of years and the trees have adapted to this. The replacement of the existing encroachment with the proposed encroachment is therefore unlikely to impact the long-term viability of these trees
- 3.3.4 (h), *Design factors.*  
The accommodation pods are to be placed on piers and as such there is limited excavation required and the area of excavation is substantially less than the actual area of the pod. Additionally the path/road has been redesigned to minimise any new encroachment into the TPZ of the affected trees.

The encroachment for Trees 12, 21, 22 and 33 is greater than 20% and will cause tree damaging activity that will result in the decline, death or failure of these trees. The encroachment impacts the SRZ and/or the trunk and as such they will be destabilised by the proposed work and they are therefore considered to be Conflicted by the proposed development. Additionally, there are thirteen trees that have been identified for removal as part of the bushfire mitigation requirements for this project, these trees are also considered to Conflicted by the proposed development.

Table 5 Development Impact

Impact	Number of Trees	Tree Numbers
Conflicted	17	7, 12, 21, 22, 26, 31-33, 43, 45, 46, 48, 55, 57, 101, 602 and 603
Low	20	9, 10, 13-15, 19, 24, 30, 34-40, 47, 50, 53, 54 and 61
No Impact	10	25, 28, 29, 41, 42, 52, 56 and 58-60

The three highlighted trees have a High Retention Rating, however their removal is required as part of the bushfire mitigation requirements.

## Conclusion

The Arboricultural Impact Assessment has identified that seventeen trees in the area of the proposed development are likely to be negatively impacted by the proposed works and require removal. As fourteen of these trees have a Moderate or Low Retention Rating and do not display attributes that indicate they should be protected their removal to accommodate expected development is reasonable. However, three trees, Trees 43, 45 and 48 have a High Retention Rating and display attributes that indicate they should be protected, redesign has been considered to prevent substantial damage to these three trees however due to the constraints of the site and the bushfire mitigation requirements it is not possible to retain them.

Additionally, there are thirty trees that are unlikely to be negatively impacted by the planned works. The encroachment is less than 10% of the TPZ area, within an existing encroachment and/or low impact construction methodologies have been incorporated into the design; it is therefore unlikely that the proposed works will impact on the viability of this tree.

## Recommendation

Whilst the viability of the trees to be retained is unlikely to be impacted by the proposed works there is potential for incidental damage and as such Tree Protection is recommended as part of this construction.

The following is recommended as a minimum: -

1. Ensure all work requirements/activities in the vicinity of these trees are discussed and designed in consultation with the Project Arborist. i.e.: no machinery operation in the vicinity of the trees without a Tree Protection Plan.
2. A Tree Protection Zone fence is to be erected to ensure access to the root zone is restricted. The fence is to be installed prior to the commencement of all other site works including demolition.
3. If machinery access is required within the TPZ ground protection is to be installed in consultation with the Project Arborist to ensure tree roots are not damaged.

These recommendations have been provided to ensure the balance between development and arboricultural management have been addressed and considered. If the recommendations are followed and adhered to the subject trees will not be negatively impacted by this proposal.

Thank you for the opportunity to provide this report. Should you have any questions or require further information, please contact me and I will be happy to be of assistance.

Yours sincerely,



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**Diploma in Arboriculture**

**International Society of Arboriculture – Tree Risk Assessment**

**VALID Tree Risk Assessment (VALID) – 2018 and 2021**

**Native Vegetation Council Trained Arborist 2019**



## Definitions

<b>Circumference:</b>	trunk circumference measured at one metre above ground level. This measurement is used to determine the status of the tree in relation to the <i>Planning, Development and Infrastructure Act 2016 (PDI Act 2016)</i> .
<b>Diameter at Breast Height:</b>	trunk diameter measured at 1.4 metres above ground level used to determine the Tree Protection Zone as described in Australian Standard AS4970-2009 <i>Protection of trees on development sites</i> .
<b>Diameter at Root Buttress:</b>	trunk diameter measured just above the root buttress as described in Australian Standard AS4970-2009 <i>Protection of trees on development sites</i> and is used to determine the Structural Root Zone.
<b>Tree Damaging Activity</b>	Tree damaging activity includes those activities described within the <i>Planning, Development and Infrastructure Act 2016 (PDI Act 2016)</i> , such as removal, killing, lopping, ringbarking or topping or any other substantial damage such as mechanical or chemical damage, filling or cutting of soil within the TPZ. Can also include forms of pruning above and below the ground.
<b>Tree Protection Zone:</b>	area of root zone that should be protected to prevent substantial damage to the tree's health.
<b>Structural Root Zone:</b>	calculated area within the tree's root zone that is considered essential to maintain tree stability.
<b>Project Arborist</b>	a person with the responsibility for conducting a tree assessment, report preparation, consultation with designers, specifying tree protection measures, monitoring and certification. The Project Arborist must be competent in arboriculture, having acquired through training, minimum Australian Qualification Framework (AQTF) Level 5, Diploma of Horticulture (Arboriculture) and/or equivalent experience, the knowledge and skills enabling that person to perform the tasks required by this standard.
<b>Encroachment:</b>	the area of a Tree Protection Zone that is within the proposed development area.
<b>Impact:</b>	the effect on tree health, structure and/or viability as a result of required works associated with the proposed development within the TPZ or the vicinity of the tree(s).

## References

Australian Standard AS4970–2009 *Protection of trees on development sites*: Standards Australia.

Matheny N. Clark J. 1998: *Trees and Development a Technical Guide to Preservation of Trees During Land Development*. International Society of Arboriculture, Champaign, Illinois, USA.

## Appendix A - Tree Assessment Methodology



## Tree Assessment Form (TAF©)

Record	Description
<b>Tree</b>	In botanical science, a tree is a perennial plant which consists of one or multiple trunks which supports branches and leaves. Trees are generally taller than 5 metres and will live for more than ten seasons, with some species living for hundreds or thousands of seasons.
<b>Genus and Species</b>	Botanical taxonomy of trees uses the binominal system of a genus and species, often there are subspecies and subgenus as well as cultivars. When identifying tree species, identification techniques such as assessing the tree's form, flower, stem, fruit and location are used. Identifying the right species is critical in assessing the tree's legalisation and environmental benefit. All efforts are made to correctly identify each tree to species level, where possible. Genus is the broader group to which the tree belongs e.g. <i>Eucalyptus</i> , <i>Fraxinus</i> and <i>Melaleuca</i> . Species identifies the specific tree within the genus e.g. <i>Eucalyptus camaldulensis</i> , <i>Fraxinus griffithi</i> or <i>Melaleuca styphelioides</i> . Trees will also be assigned the most commonly used Common Name. Common Names are not generally used for identification due to their nonspecific use, i.e. <i>Melia azedarach</i> is commonly known as White Cedar in South Australia but is also called Chinaberry Tree, Pride of India, Bead-tree, Cape Lilac, Syringa Berrytree, Persian Lilac, and Indian Lilac; equally similar common names can refer to trees from completely different Genus e.g. Swamp Oak, Tasmanian Oak and English Oak are from the <i>Casuarina</i> , <i>Eucalyptus</i> and <i>Quercus</i> genus's respectively.
<b>Height</b>	Tree height is estimated by the arborist at the time of assessment. Tree height is observed and recorded in the following ranges; <5m, 5-10m, 10-15m and >20m.
<b>Spread</b>	Tree crown spread is estimated by the arborist at the time of assessment and recorded in the following ranges <5m, 5-10m, 10-15m, 15-20m, >20m.
<b>Health</b>	Tree health is assessed using the Arborman Tree Solutions - Tree Health Assessment Method that is based on international best practice.
<b>Structure</b>	Tree structure is assessed using Arborman Tree Solutions - Tree Structure Assessment Method that is based on international best practice.
<b>Tree Risk Assessment</b>	Tree Risk is assessed using Tree Risk Assessment methodology. The person conducting the assessment has been trained in the International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ), Quantified Tree Risk Assessment (QTRA) and/or VALID Tree Risk Assessment (VALID). Refer to the Methodology within the report for additional information.
<b>Legislative Status</b>	Legislation status is identified through the interpretation of the <i>Development Act 1993</i> , the <i>Natural Resource Management Act 2004</i> , the <i>Native Vegetation Act 1991</i> and/or any other legislation that may apply.
<b>Mitigation</b>	Measures to reduce tree risk, improve tree condition, remove structural flaws, manage other conditions as appropriate may be recommended in the form of pruning and is listed in the Tree Assessment Findings (Appendix B). Tree pruning is recommended in accordance with AS4373-2007 <i>Pruning amenity trees</i> where practicable. Where measures to mitigate risk is not possible and the risk is unacceptable, then tree removal or further investigation is recommended.

## Useful Life Expectancy (ULE)

ULE Rating	Definition
Surpassed	The tree has surpassed its Useful Life Expectancy. Trees that achieve a surpassed ULE may do so due to poor health, structure or form. Additionally, trees that are poorly located such as under high voltage powerlines or too close to structures may also achieve a surpassed ULE. Trees that achieve this status will be recommended for removal as there are no reasonable options to retain them.
<10 years	The tree displays either or both Poor Health and/or Structure and is considered to have a short Useful Life Expectancy of less than ten years. Some short-lived species such as <i>Acacia sp.</i> may naturally achieve a short ULE.
>10 years	The tree displays Fair Health or Structure and Good Health or Structure and is considered to have a Useful Life Expectancy of ten years or more. Trees identified as having a ULE of >10, will require mitigation such as pruning, stem injections or soil amelioration to increase their ULE.
>20 years	The tree displays Good Health and Structure and is considered to have an extended Useful Life Expectancy of more than twenty years.

## Maturity (Age)

Age Class	Definition
Senescent	The tree has surpassed its optimum growing period and is declining and/or reducing in size. May be considered as a veteran in relation to its ongoing management. Tree will have generally reached greater than 80% of its expected life expectancy.
Mature	A mature tree is one that has reached its expected overall size, although the tree's trunk is still expected to continue growing. Tree maturity is also assessed based on species; as some trees are much longer lived than others. Tree will have generally reached 20-80% of its expected life expectancy.
Semi Mature	A tree which has established but has not yet reached maturity. Normally tree establishment practices such as watering will have ceased. Tree will generally not have reached 20% of its expected life expectancy.
Juvenile	A newly planted tree or one which is not yet established in the landscape. Tree establishment practices such as regular watering will still be in place. Tree will generally be a newly planted specimen up to five years old; this may be species dependant.

## Tree Health Assessment (THA©)

Category	Description
Good	Tree displays normal vigour, uniform leaf colour, no or minor dieback (<5%), crown density (>90%). When a tree is deciduous, healthy axillary buds and typical internode length is used to determine its health. A tree with good health would show no sign of disease and no or minor pest infestation was identified. The tree has little to no pest and/or disease infestation.
Fair	Tree displays reduced vigour abnormal leaf colour, a moderate level of dieback (<15%), crown density (>70%) and in deciduous trees, reduced axillary buds and internode length. Minor pest and/or disease infestation potentially impacting on tree health. Trees with fair health have the potential to recover with reasonable remedial treatments.
Poor	Tree displays an advanced state of decline with low or no vigour, chlorotic or dull leaf colour, with high crown dieback (>15%), low crown density (<70%) and/or in deciduous trees, few or small axillary buds and shortened internode length. Pest and or disease infestation is evident and/or widespread. Trees with poor health are highly unlikely to recover with any remedial treatments; these trees have declined beyond the point of reversal.
Dead	The tree has died and has no opportunity for recovery.

## Tree Structural Assessment (TSA©)

Category	Description
Good	Little to no branch failure observed within the crown, well-formed unions, no included bark, good branch and trunk taper present, root buttressing and root plate are typical. Trees that are identified as having good health display expected condition for their age, species and location.
Fair	The tree may display one or more of the following a history of minor branch failure, included bark unions may be present however, are stable at this time, acceptable branch and trunk taper present, root buttressing and root plate are typical. Trees with fair structure will generally require reasonable remediation methods to ensure the tree's structure remains viable.
Poor	History of significant branch failure observed in the crown, poorly formed unions, unstable included bark unions present, branch and/or trunk taper is abnormal, root buttressing and/or root plate are atypical.
Failed	The structure of the tree has or is in the process of collapsing.

## Tree Form Assessment (TFA©)

Category	Description
Good	Form is typical of the species and has not been altered by structures, the environment or other trees.
Fair	The form has minor impacts from structures, the environment or adjacent trees which has altered its shape. There may be slight phototropic response noted or moderate pruning which has altered the tree's form.
Poor	The tree's form has been substantially impacted by structures, the environment, pruning or other trees. Phototropic response is evident and unlikely to be corrected.
Atypical	Tree form is highly irregular due to structures or other trees impacting its ability to correctly mature. Extreme phototropic response is evident; or the tree has had a substantially failure resulting in its poor condition, or extensive pruning has altered the tree's form irreversibly.

## Priority

Category	Description
Low	Identified works within this priority should be carried out within 12 months.
Medium	Identified works within this priority should be carried out within 6 months.
High	Identified works within this priority should be carried out within 3 months.
Urgent	Identified works within this priority should be carried out immediately. Works within this priority rating will be brought to attention of the responsible person at the time of assessment.

## Tree Retention Rating (TRR)

The Tree Retention Rating is based on a number of factors that are identified as part of the standard tree assessment criteria including Condition, Size, Environmental, Amenity and Special Values. These factors are combined in a number of matrices to provide a Preliminary Tree Retention Rating and a Tree Retention Rating Modifier which combine to provide a Tree Retention Rating that is measurable, consistent and repeatable.

### Preliminary Tree Retention Rating

The Preliminary Tree Retention Rating is conducted assessing Tree Health and Structure to give an overall Condition Rating and Height and Spread to give an overall Size Rating. The following matrices identify how these are derived.

Condition Matrix				
Structure	Health			
	Good	Fair	Poor	Dead
Good	C1	C2	C3	C4
Fair	C2	C2	C3	C4
Poor	C3	C3	C4	C4
Failed	C4	C4	C4	C4

Size Matrix					
Spread	Height				
	>20	15-20	10-15	5-10	<5
>20	S1	S1	S1	S2	S3
15-20	S1	S1	S2	S3	S3
10-15	S1	S2	S2	S3	S4
5-10	S2	S3	S3	S4	S5
<5	S3	S3	S4	S5	S5

The results from the Condition and Size Matrices are then placed in the Preliminary Tree Retention Rating Matrix.

Preliminary Tree Retention Rating				
Size	Condition			
	C1	C2	C3	C4
S1	High	Moderate	Low	Low
S2	Moderate	Moderate	Low	Low
S3	Moderate	Moderate	Low	Low
S4	Moderate	Moderate	Low	Low
S5	Low	Low	Low	Low

The Preliminary Tree Retention Rating gives a base rating for all trees regardless of other environmental and/or amenity factors and any Special Value considerations. The Preliminary Tree Retention Rating can only be modified if these factors are considered to be of high or low enough importance to warrant increasing or, in a few cases, lowering the original rating.

## Tree Retention Rating Modifier

The Preliminary Tree Retention Rating is then qualified against the recognised Environmental and Amenity benefits that trees present to the community thereby providing a quantitative measure to determine the overall Tree Retention Rating. Data is collected in relation to Environmental and Amenity attributes which are compared through a set of matrices to produce a Tree Retention Rating Modifier.

Environmental Matrix				
Origin	Habitat			
	Active	Inactive	Potential	No Habitat
Indigenous	E1	E1	E2	E3
Native	E1	E2	E3	E3
Exotic	E2	E3	E3	E4
Weed	E3	E3	E4	E4

Amenity Matrix				
Character	Aesthetics			
	High	Moderate	Low	None
Important	P1	P1	P2	P3
Moderate	P1	P2	P3	P3
Low	P2	P3	P3	P4
None	P3	P3	P4	P4

Tree Retention Rating Modifier				
Amenity	Environment			
	E1	E2	E3	E4
P1	High	High	Moderate	Moderate
P2	High	Moderate	Moderate	Moderate
P3	Moderate	Moderate	Moderate	Moderate
P4	Moderate	Moderate	Moderate	Low

## Tree Retention Rating

The results of the Preliminary Tree Retention Rating and the Tree Retention Rating Modifier matrices are combined in a final matrix to give the actual Tree Retention Rating.

Tree Retention Rating Matrix			
Tree Retention Rating Modifier	Preliminary Tree Retention Rating		
	High	Moderate	Low
High	Important	High	Moderate
Moderate	High	Moderate	Low
Low	Moderate	Low	Low

## **Special Value Trees**

There are potentially trees that have Special Value for reasons outside of normal Arboricultural assessment protocols and therefore would not have been considered in the assessment to this point; to allow for this a Special Value characteristic that can override the Tree Retention Rating can be selected. Special Value characteristics that could override the Tree Retention Rating would include factors such as the following:

### *Cultural Values*

Memorial Trees, Avenue of Honour Trees, Aboriginal Heritage Trees, Trees planted by Dignitaries and various other potential categories.

### *Environmental Values*

Rare or Endangered species, Remnant Vegetation, Important Habitat for rare or endangered wildlife, substantial habitat value in an important biodiversity area and various other potential categories.

Where a tree achieves one or more Special Value characteristics the Tree Retention Rating will automatically be overridden and assigned the value of Important.

## **Tree Retention Rating Definitions**

- Important** These trees are considered to be important and will in almost all instances be required to be retained within any future development/redevelopment. It is highly unlikely that trees that achieve this rating would be approved for removal or any other tree damaging activity. Protection of these trees should as a minimum be consistent with Australian Standard AS4970-2009 *Protection of trees on development sites* however given the level of importance additional considerations may be required.
- High** These trees are considered to be important and will in most instances be required to be retained within any future development/redevelopment. It is unlikely that trees that achieve this rating would be approved for removal or any other tree damaging activity. Protection of these trees should be consistent with Australian Standard AS4970-2009 *Protection of trees on development sites*.
- Moderate** These trees are considered to be suitable for retention however they achieve less positive attributes than the trees rated as Important or High and as such their removal or other tree damaging activity is more likely to be considered to be acceptable in an otherwise reasonable and expected development. The design process should where possible look to retain trees with a Moderate Retention Rating. Protection of these trees, where they are identified to be retained, should be consistent with Australian Standard AS4970-2009 *Protection of trees on development sites*.
- Low** These trees are not considered to be suitable for retention in any future development/redevelopment; trees in this category do not warrant special works or design modifications to allow for their retention. Trees in this category are likely to be approved for removal and/or other tree damaging activity in an otherwise reasonable and expected development. Protection of these trees, where they are identified to be retained, should be consistent with Australian Standard AS4970-2009 *Protection of trees on development sites*.

## Development Impact Assessment

Potential development impacts were determined in accordance with Australian Standard 4970-2009 *Protection of trees on development sites*. The identification of the impact of development considers a number of factors including the following:

- a. The extent of encroachment into a tree's Tree Protection Zone by the proposed development as a percentage of the area.
- b. Results of any non-destructive exploratory investigations that may have occurred to determine root activity.
- c. Any required pruning that may be needed to accommodate the proposed development.
- d. Tree species and tolerance to root disturbance.
- e. Age, vigour and size of the tree.
- f. Lean and stability of the tree.
- g. Soil characteristics and volume, topography and drainage.
- h. The presence of existing or past structures or obstacles potentially affecting root growth.
- i. Design factors incorporated into the proposed development to minimise impact.

The impacts on a tree can be varied and are not necessarily consistent with or directly correlated to a particular level of encroachment, to assist in providing consistency the levels of impact have been classified into the following categories: -

- No Impact - no encroachment into the TPZ has been identified.
- Low <10% - the identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.
- Low >10% - the identified encroachment is greater than 10% of the TPZ area however there are factors that indicate the proposed development will not negatively impact tree viability.
- High >10% - the identified encroachment is greater than 10% of the TPZ area and factors are present that indicate the proposed development will negatively impact tree viability. The impact is likely to lead to the long-term decline of the tree however it is unlikely to impact on its short-term stability.
- Conflicted - the identified encroachment is greater than 10% of the TPZ area and in most cases will also impact the SRZ and/or the trunk. There are factors present that indicate the proposed development will negatively impact tree viability to the point where its removal is required as part of the development.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'Low' have features or considerations identified in clauses in AS4970-2009 3.3.4 *TPZ encroachment considerations* which indicate these trees should be sustainable.

Trees with calculated encroachments greater than 10% and with an Impact identified as 'High' do not have any features or considerations identified in clauses in AS4970-2009 3.3.4 and therefore alternative design solutions, additional root investigations and/or tree sensitive construction measures are required if the tree is to be retained. Where alternative protection methodologies are not available tree removal may be required to accommodate the development.

Trees with an Impact identified as 'Conflicted' are impacted over the majority of their root zone and/or over the SRZ or on the trunk, additional root investigations or tree sensitive construction measures are not available and the only option is alternative designs or tree removal.

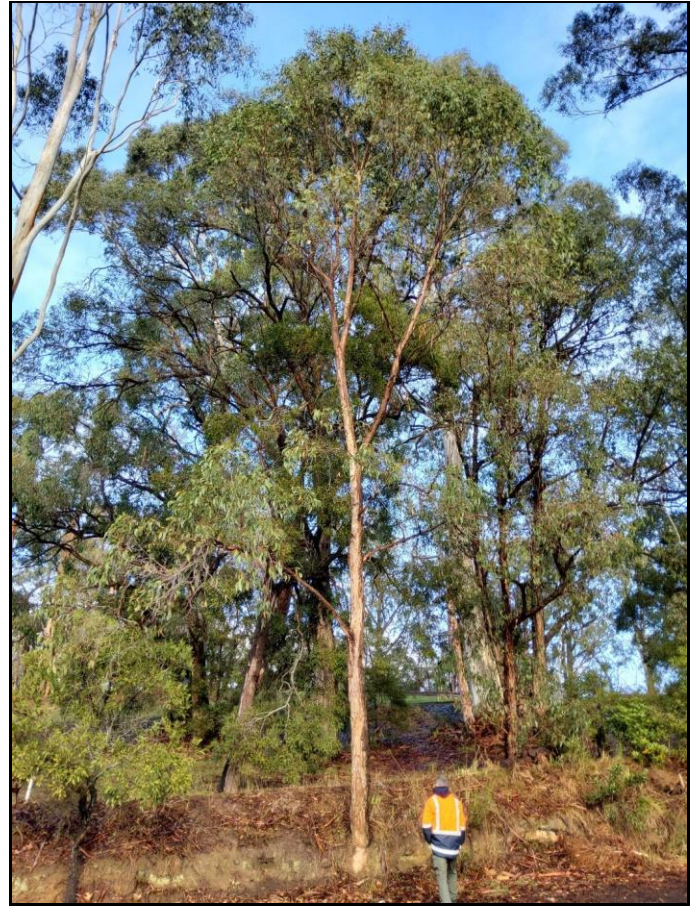


## Appendix B - Tree Assessment Findings



## Messmate Stringy-bark

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	5-10 metres
<b>Spread:</b>	5-10 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Good
<b>Trunk Circumference:</b>	<2 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	4.20 metres
<b>Structural Root Zone:</b>	2.20 metres



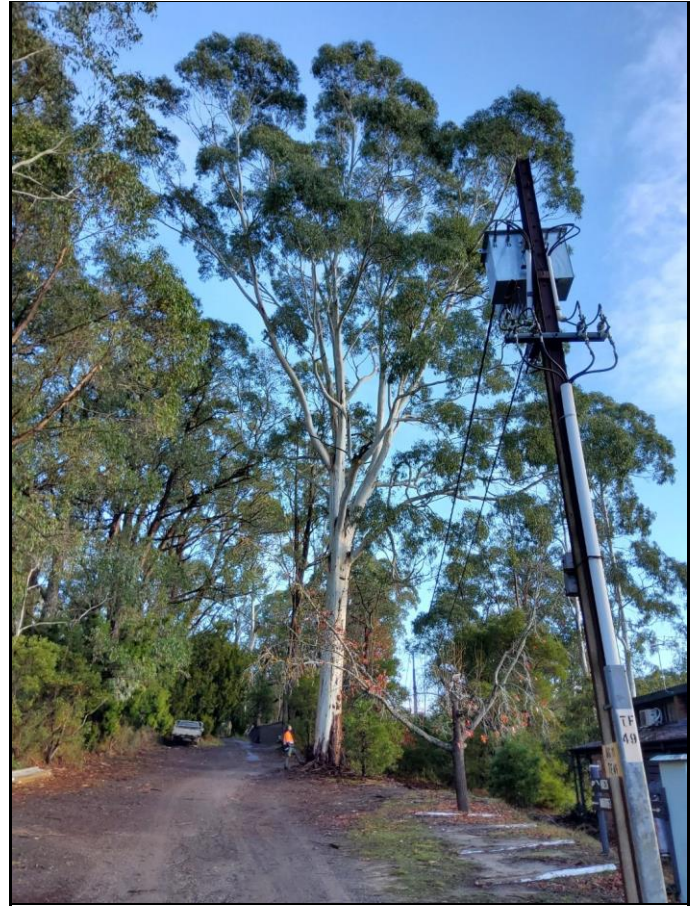
### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. However, this tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Conflicted</b>
The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. On that basis the proposed development will negatively impact tree viability to the point where its removal is required.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	

## Manna Gum

Inspected:	9 June 2021
Height:	>20 metres
Spread:	<5 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	15.00 metres
Structural Root Zone:	3.93 metres



### Observations

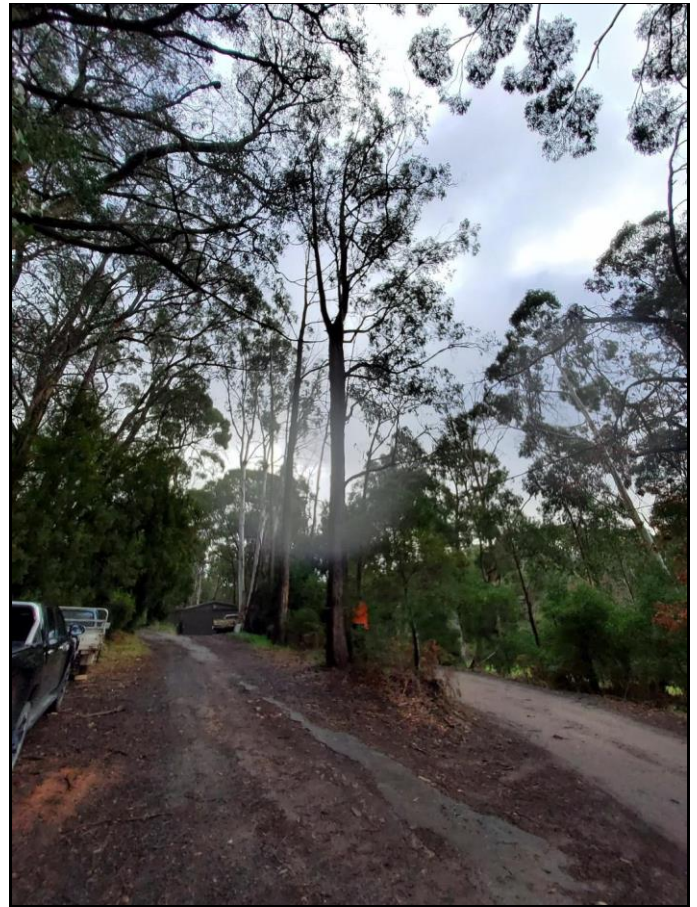
The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This tree has a moderate history of small diameter branch failure.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>High</b>
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	<b>Low</b>
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	<b>Specialised Construction</b>
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree.	



## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	>20 metres
Spread:	5-10 metres
Health:	Poor
Structure:	Fair
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	8.23 metres
Structural Root Zone:	2.94 metres



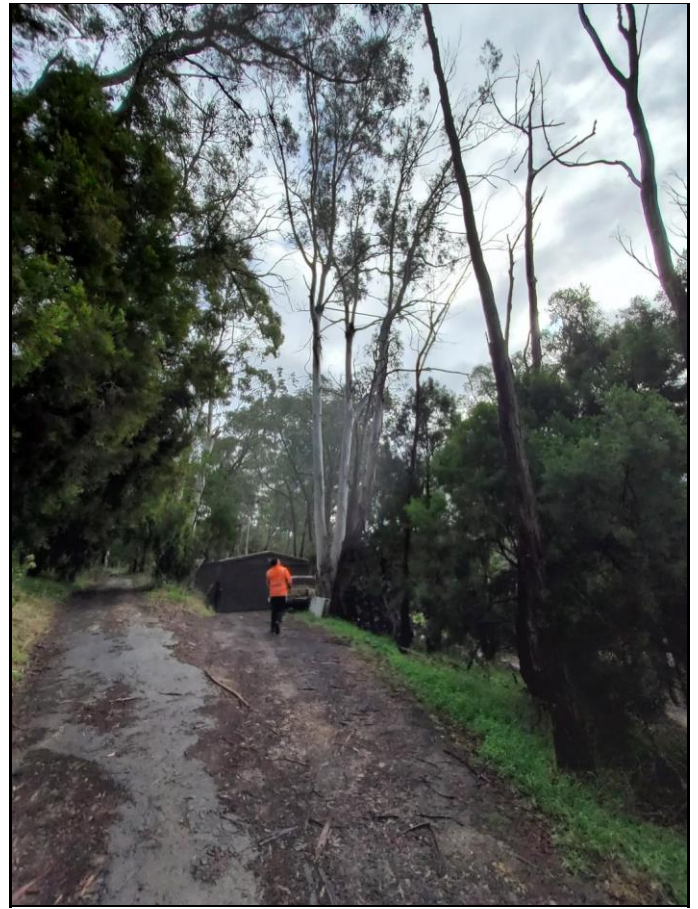
### Observations

This tree is in poor overall condition as evidenced by the substantial volume of deadwood and the presence of stable included bark in the primary structure.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Low</b>
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	<b>Specialised Construction</b>
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree. It should be noted however that this tree is in poor condition and is not suitable for long term retention in this type of development.	

## Manna Gum

Inspected:	9 June 2021
Height:	15-20 metres
Spread:	15-20 metres
Health:	Poor
Structure:	Fair
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	11.51 metres
Structural Root Zone:	3.39 metres



### Observations

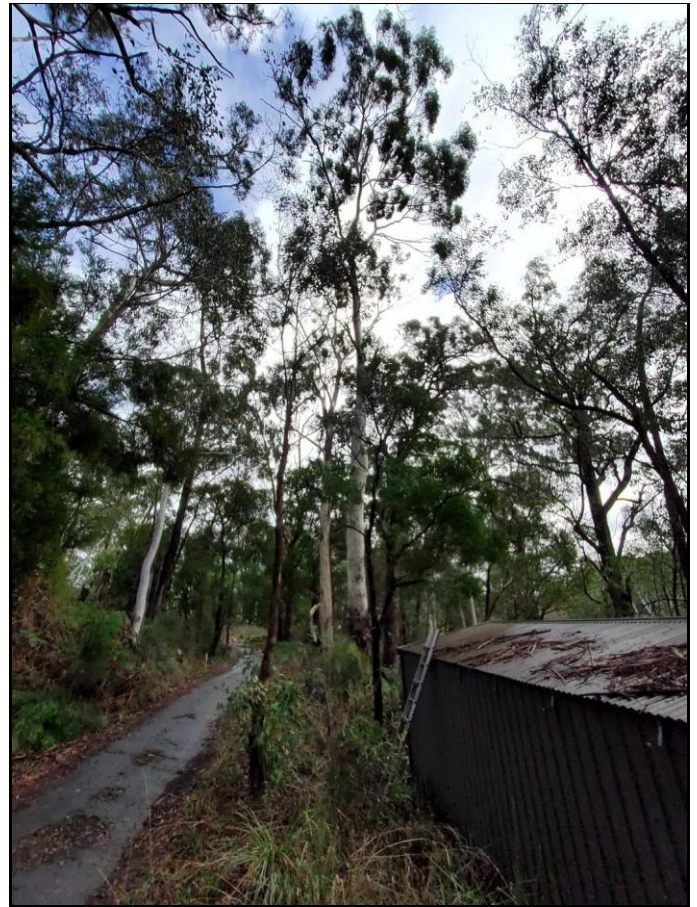
This tree is considered to be in poor overall condition due to the considerably reduced foliage density, with high levels of dieback and deadwood throughout the crown. There are a number of relatively poorly installed cables in the mid-crown of this tree between the codominant stems, these are restricting sap flow and may be a factor in the reduced crown condition.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Conflicted</b>
The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. On that basis the proposed development will negatively impact tree viability to the point where its removal is required.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	>10 years
<b>Tree Protection Zone:</b>	12.84 metres
<b>Structural Root Zone:</b>	3.55 metres



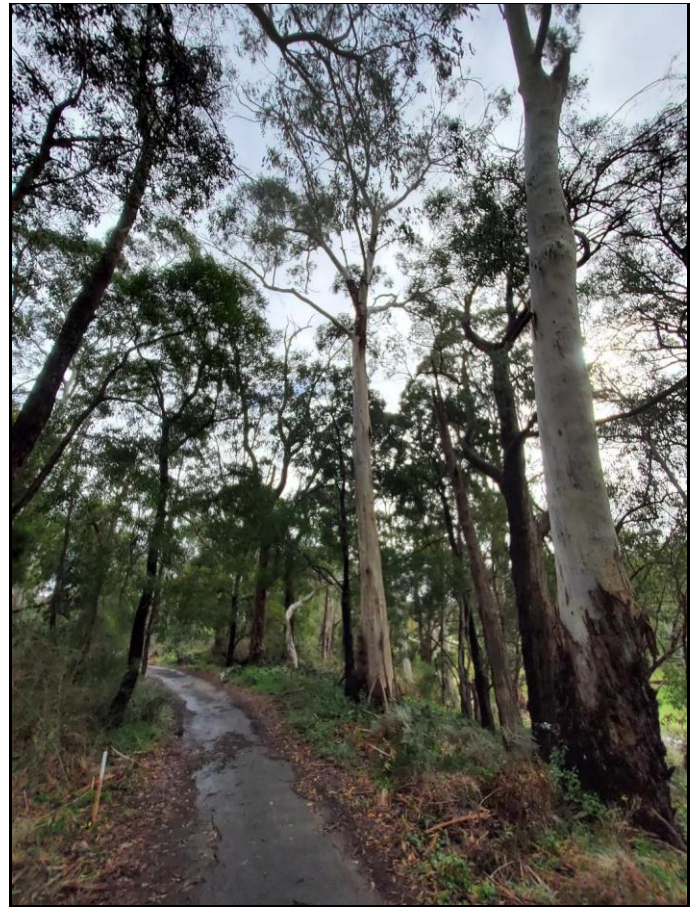
### Observations

This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown. This tree has a moderate trunk lean however this is natural and not considered to be affecting the overall structural rating.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Moderate
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	Specialised Construction
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	15-20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Poor
<b>Form:</b>	Poor
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	Surpassed
<b>Tree Protection Zone:</b>	9.96 metres
<b>Structural Root Zone:</b>	3.18 metres



### Observations

This tree is in poor overall condition as evidenced by the substantial levels of deadwood, branch failure and decay throughout the tree. There is a significant level of decay in the primary trunk union.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Low
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	Low
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	Specialised Construction
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree. It should be noted however that this tree is in poor condition and is not suitable for long term retention in this type of development.	



## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	>20 metres
Spread:	15-20 metres
Health:	Poor
Structure:	Fair
Form:	Fair
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	10.92 metres
Structural Root Zone:	3.31 metres



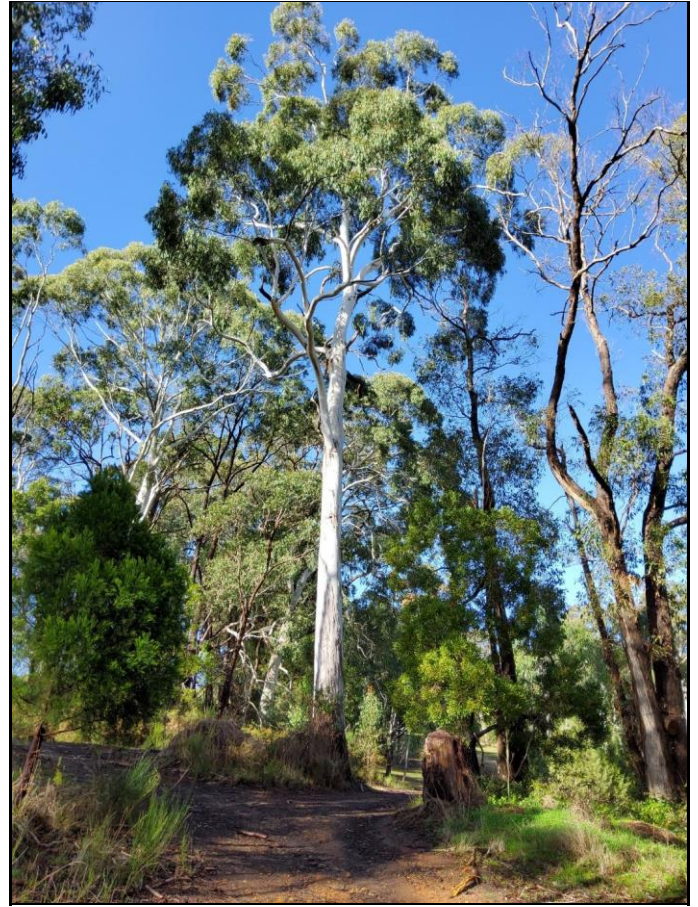
### Observations

This tree is considered to be in poor overall condition as evidenced by the substantial volume of deadwood throughout the crown and moderate level of branch failure and epicormic growth.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Low</b>
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	<b>Specialised Construction</b>
Low impact construction methods have been recommended and incorporated into the design to minimise any impact on the tree.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Fair
<b>Structure:</b>	Fair
<b>Form:</b>	Good
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	12.12 metres
<b>Structural Root Zone:</b>	3.46 metres



### Observations

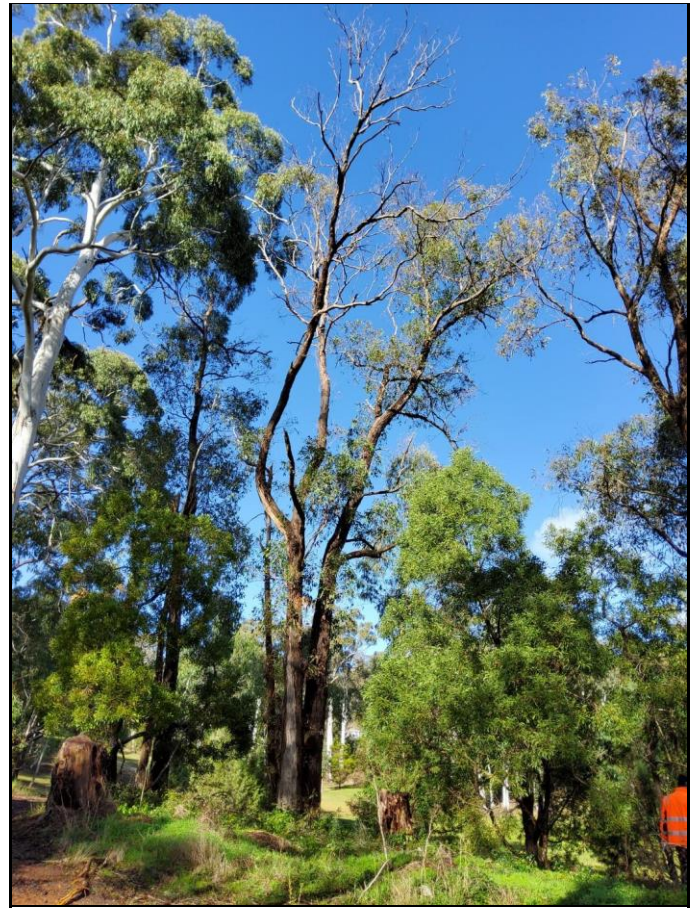
This tree is considered to be in fair condition due to the moderate quantity of deadwood in the crown and slightly reduced overall structural rating.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	Specialised Construction
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree.	



## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	>20 metres
Spread:	10-15 metres
Health:	Poor
Structure:	Fair
Form:	Poor
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	12.96 metres
Structural Root Zone:	3.56 metres



### Observations

This tree is considered to be in poor overall condition as evidenced by the substantial level of dieback of the upper crown, the presence of poor quality branch unions and the moderate history of branch failure.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	

## Messmate Stringy-bark

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	10-15 metres
<b>Spread:</b>	5-10 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Good
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	3.60 metres
<b>Structural Root Zone:</b>	2.08 metres



### Observations

This tree is considered to be in poor overall condition due to the level of dieback in the upper crown.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Low
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	Conflicted
The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. On that basis the proposed development will negatively impact tree viability to the point where its removal is required.	
<b>Action</b>	Removal Required
Tree removal is required to facilitate the proposed development.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Good
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	15.00 metres
<b>Structural Root Zone:</b>	4.21 metres



### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Fair
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	14.04 metres
<b>Structural Root Zone:</b>	3.68 metres



### Observations

This tree is considered to be in fair overall condition due to the moderate level of deadwood in the crown and the modest level of decay in the trunk and/or branches.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	No Impact
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	



## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Poor
Structure:	Fair
Form:	Fair
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	11.52 metres
Structural Root Zone:	3.39 metres



### Observations

This tree is considered to be in poor overall condition as evidenced by the substantial volume of deadwood and moderate level of epicormic growth throughout the crown.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	>10 years
<b>Tree Protection Zone:</b>	15.00 metres
<b>Structural Root Zone:</b>	4.21 metres



### Observations

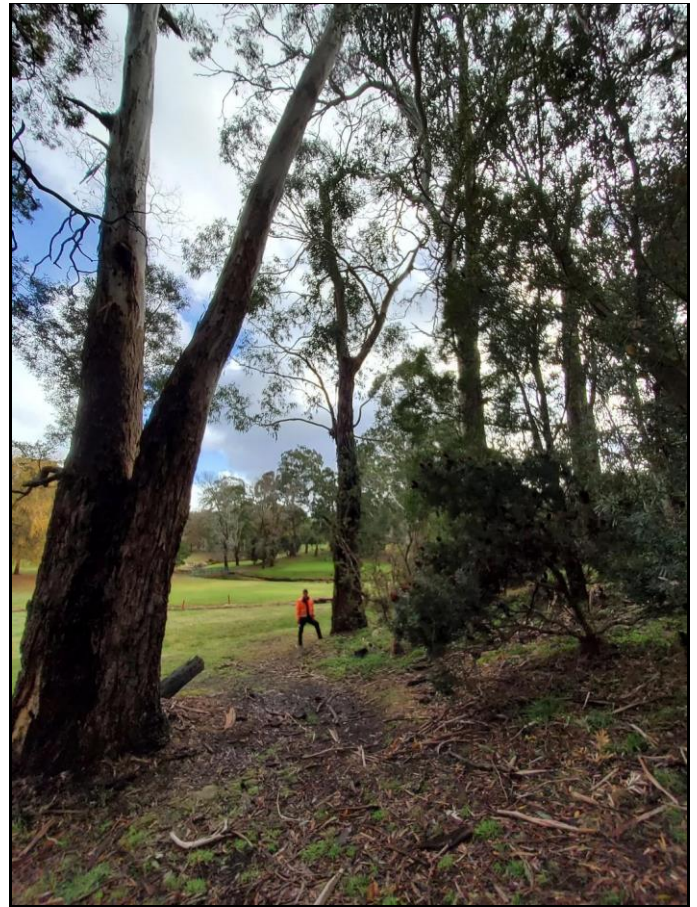
This tree is considered to be in fair overall condition due to its reduced structural rating associated with the moderate level of branch failure and the modest level of decay in the trunk and/or branches. This tree also has a moderate trunk lean that whilst not significant structurally is worthy of noting.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	No Impact
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Fair
<b>Form:</b>	Poor
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	11.52 metres
<b>Structural Root Zone:</b>	3.39 metres



### Observations

This tree is in poor overall condition as evidenced by the substantial volume of deadwood and dieback and the significantly reduced foliage density. Additionally, this tree has a moderate history of branch failure and an increased level of epicormic growth.

<b>Legislative Status</b>	Controlled
<p>This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).</p>	
<b>Retention Rating</b>	Low
<p>This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.</p>	
<b>Development Impact</b>	No Impact
<p>No encroachment into the Tree Protection Zone area has been identified.</p>	
<b>Action</b>	Protect Root Zone

Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009. It should be noted however that this tree is in poor condition and is not suitable for long term retention in this type of development.

## Manna Gum

Inspected:	9 June 2021
Height:	>20 metres
Spread:	>20 metres
Health:	Poor
Structure:	Fair
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	12.72 metres
Structural Root Zone:	3.53 metres



### Observations

This tree is poor overall condition as evidenced by the high level of deadwood and dieback and the moderate levels of decay and epicormic growth.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Low</b>
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	<b>Protect Root Zone</b>
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009. It should be noted however that this tree is in poor condition and is not suitable for long term retention in this type of development.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Poor
<b>Form:</b>	Poor
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	Surpassed
<b>Tree Protection Zone:</b>	9.46 metres
<b>Structural Root Zone:</b>	3.12 metres



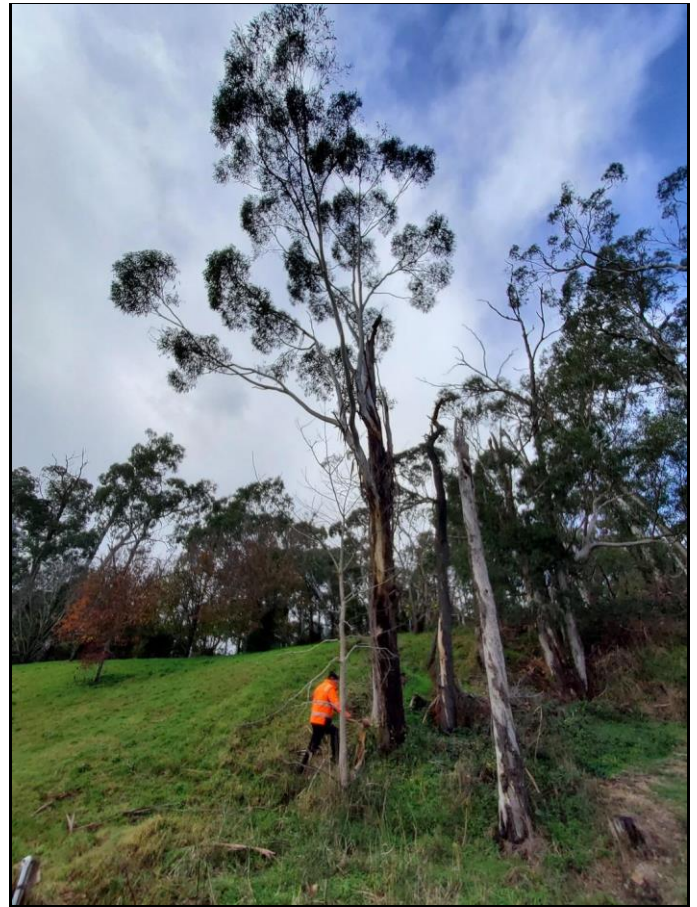
### Observations

This tree is considered to be in poor overall condition as evidenced by the elevated level of deadwood and dieback throughout the crown and the substantial history of branch failure and associated decay.

<b>Legislative Status</b>	Controlled
<p>This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).</p>	
<b>Retention Rating</b>	Low
<p>This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.</p>	
<b>Development Impact</b>	Conflicted
<p>The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.</p>	
<b>Action</b>	Removal Required
<p>Tree removal is required to facilitate the proposed development.</p>	

## Manna Gum

Inspected:	9 June 2021
Height:	10-15 metres
Spread:	15-20 metres
Health:	Good
Structure:	Poor
Form:	Poor
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	8.52 metres
Structural Root Zone:	2.98 metres



### Observations

This tree is considered to be in poor overall condition due to the substantial history of branch failure and the moderate volume of deadwood.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Poor
<b>Form:</b>	Poor
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	Surpassed
<b>Tree Protection Zone:</b>	10.44 metres
<b>Structural Root Zone:</b>	3.25 metres



### Observations

This tree is considered to be in poor overall condition due to the substantial volume of deadwood and the significant level of decay in the trunk. This tree also has a moderate trunk lean that is significant structurally due to the level of decay in the trunk.

<b>Legislative Status</b>	<b>Controlled</b>
<p>This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).</p>	
<b>Retention Rating</b>	<b>Low</b>
<p>This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.</p>	
<b>Development Impact</b>	<b>Conflicted</b>
<p>The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. On that basis the proposed development will negatively impact tree viability to the point where its removal is required.</p>	
<b>Action</b>	<b>Removal Required</b>
<p>Tree removal is required to support the proposed development. It should be noted that this tree is in poor condition and is not suitable for long term retention regardless of the development impact.</p>	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	10.44 metres
<b>Structural Root Zone:</b>	3.25 metres



### Observations

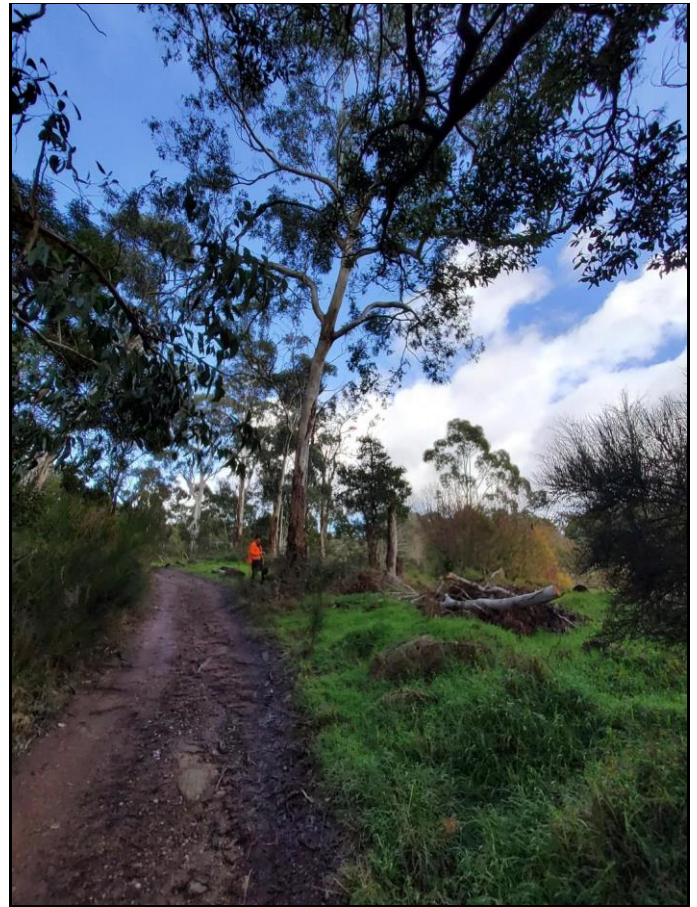
This tree is considered to be in poor overall condition as evidenced by the high level of deadwood and the substantially reduced foliage density throughout the crown. This tree also displays a moderate level of decay, epicormic growth and branch failure.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Low
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	Low
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	Protect Root Zone
Protect the root zone and crown in accordance with the recommendations and principles of AS4970-2009 Protection of trees on development sites to ensure it is adequately protected.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	15-20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Fair
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	9.00 metres
<b>Structural Root Zone:</b>	3.04 metres



### Observations

This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Low
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	Low
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	Specialised Construction
This tree is impacted by one or more pad footings and low impact construction methods are required to minimise the impact on the tree.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Fair
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	12.48 metres
<b>Structural Root Zone:</b>	3.50 metres



### Observations

This tree is considered to be in fair overall condition as evidenced by the moderate levels of deadwood and epicormic growth throughout the crown.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Moderate
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	Specialised Construction
Low impact construction methods have been recommended and incorporated into the design to minimise any impact on the tree.	



## Manna Gum

Inspected:	9 June 2021
Height:	>20 metres
Spread:	>20 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	13.08 metres
Structural Root Zone:	3.57 metres



### Observations

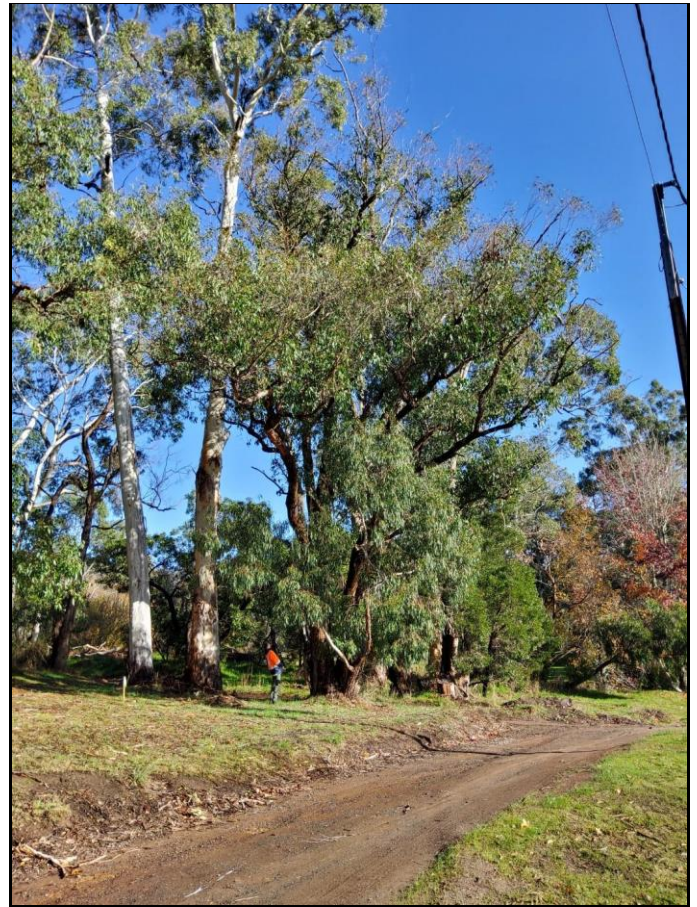
The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>High</b>
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	<b>Low</b>
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	<b>Specialised Construction</b>
Low impact construction methods have been recommended and incorporated into the design to minimise any impact on the tree.	



## Messmate Stringy-bark

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	13.19 metres
<b>Structural Root Zone:</b>	3.59 metres



### Observations

This tree considered to be in poor overall condition as evidenced by the substantial reduction in foliage density, the increased level of dieback and the presence of a partially included union in the primary structure.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Moderate
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	Specialised Construction
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	5-10 metres
<b>Health:</b>	Good
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	>10 years
<b>Tree Protection Zone:</b>	11.04 metres
<b>Structural Root Zone:</b>	3.32 metres



### Observations

This tree is considered to be in fair condition as indicated by the reduced overall structural rating. This tree also has a moderate trunk lean that whilst not significant structurally is worthy of noting.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Moderate</b>
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	<b>Low</b>
The identified encroachment is greater than 10% of the Tree Protection Zone area however the proposed development incorporates features that minimise the impact on the tree.	
<b>Action</b>	<b>Specialised Construction</b>
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	10-15 metres
<b>Health:</b>	Fair
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	9.36 metres
<b>Structural Root Zone:</b>	3.11 metres



### Observations

This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown. This tree also has a moderate trunk lean that whilst not significant structurally is worthy of noting.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Moderate
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	Specialised Construction
This tree is impacted by the road/path and low impact construction methods are required to minimise the impact on the tree.	



## Manna Gum

Inspected:	9 June 2021
Height:	>20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Poor
Form:	Poor
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	9.48 metres
Structural Root Zone:	3.12 metres



### Observations

This tree is considered to be in poor overall condition due to its poor structure rating. This tree has a significant history of small diameter branch failure and a moderate level of decay in the trunk.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>No Impact</b>
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	<b>Protect Root Zone</b>
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009. It should be noted however that this tree is in poor condition and is not suitable for long term retention in this type of development.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	15-20 metres
<b>Spread:</b>	10-15 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	8.28 metres
<b>Structural Root Zone:</b>	2.95 metres



### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	No Impact
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	



## Messmate Stringy-bark

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	<5 metres
<b>Health:</b>	Good
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	>10 years
<b>Tree Protection Zone:</b>	11.74 metres
<b>Structural Root Zone:</b>	3.42 metres



### Observations

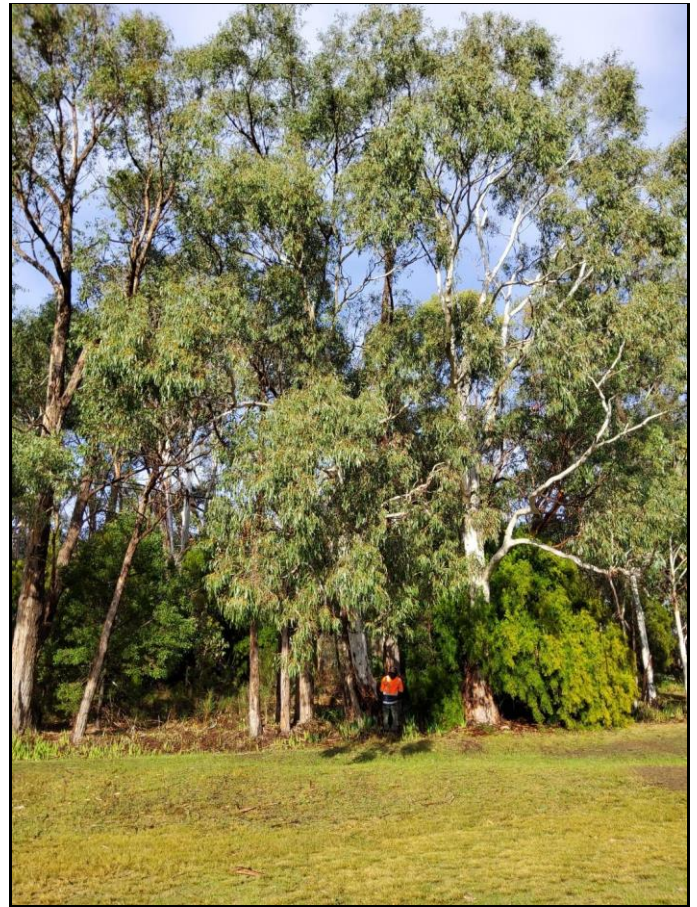
This tree is considered to be in fair condition as indicated by the reduced overall structural rating. This tree has a moderate level of decay in the trunk.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>High</b>
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	5-10 metres
<b>Spread:</b>	5-10 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	<2 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	6.24 metres
<b>Structural Root Zone:</b>	2.61 metres



### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. However, this tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.	
<b>Retention Rating</b>	<b>High</b>
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	

## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Fair
Structure:	Good
Form:	Good
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	6.12 metres
Structural Root Zone:	2.59 metres



### Observations

This tree is considered to be in fair overall condition due to its moderately reduced health rating.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. However, this tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.	
<b>Retention Rating</b>	<b>High</b>
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	



## Manna Gum

Inspected:	9 June 2021
Height:	>20 metres
Spread:	15-20 metres
Health:	Fair
Structure:	Good
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	>10 years
Tree Protection Zone:	9.84 metres
Structural Root Zone:	3.17 metres



### Observations

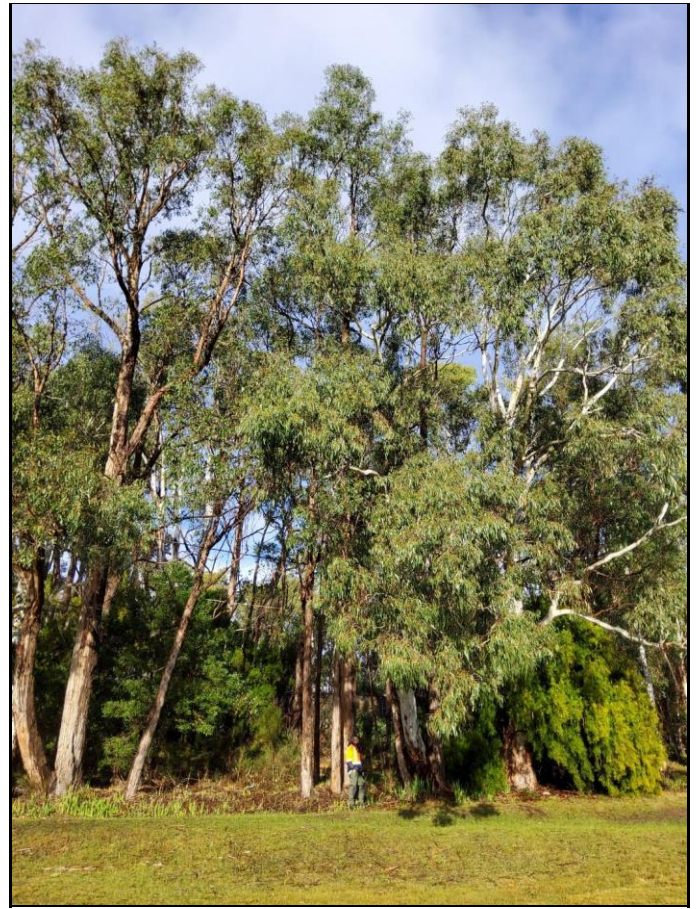
This tree is considered to be in fair overall condition due to its moderately reduced health rating.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	Protect Root Zone
Protect the root zone and crown in accordance with the recommendations and principles of AS4970-2009 Protection of trees on development sites to ensure it is adequately protected.	



## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	15-20 metres
Spread:	10-15 metres
Health:	Good
Structure:	Good
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.24 metres
Structural Root Zone:	2.61 metres



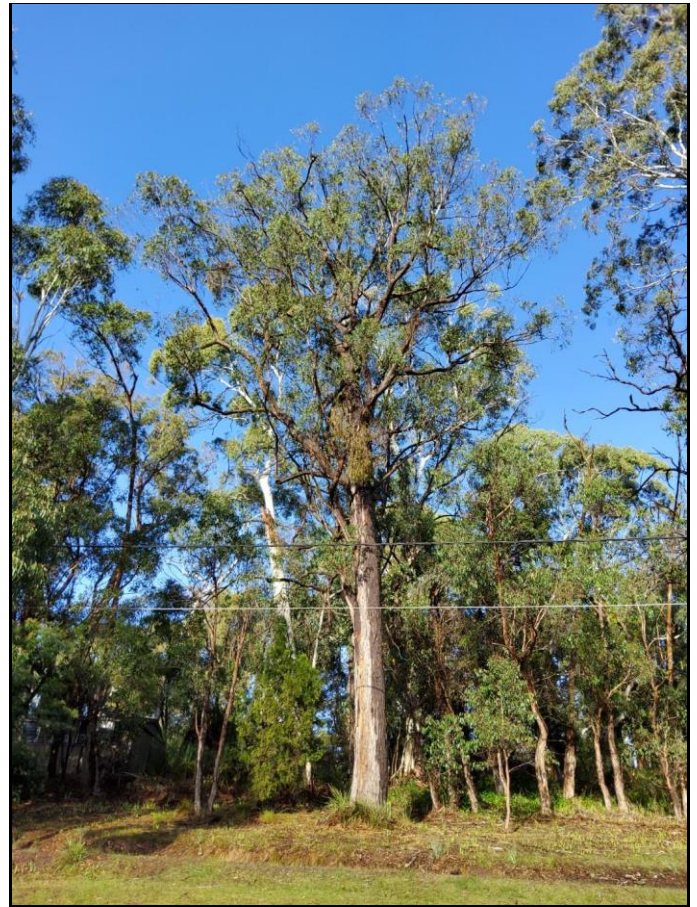
### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. However, this tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.	
<b>Retention Rating</b>	<b>High</b>
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	

## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	>20 metres
Spread:	15-20 metres
Health:	Poor
Structure:	Good
Form:	Good
Trunk Circumference:	>3 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	11.88 metres
Structural Root Zone:	3.43 metres



### Observations

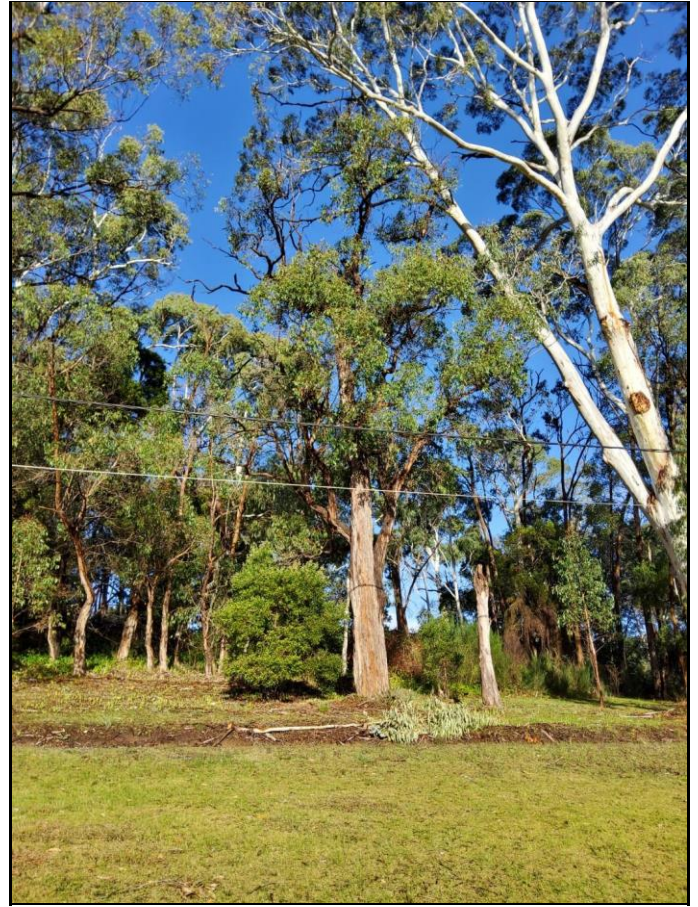
This tree is considered to be in poor overall condition due to a reduced health rating including dieback and deadwood throughout the crown.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Low</b>
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	<b>Low</b>
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	<b>Protect Root Zone</b>
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009. It should be noted however that this tree is in poor condition and is not suitable for long term retention in this type of development.	



## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	10-15 metres
Spread:	15-20 metres
Health:	Fair
Structure:	Fair
Form:	Good
Trunk Circumference:	>2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	10.68 metres
Structural Root Zone:	3.28 metres



### Observations

This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown. The crown also retains an above average volume of epicormic growth.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	<b>Moderate</b>
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	<b>No Impact</b>
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	<b>Protect Root Zone</b>
Protect the root zone and crown in accordance with the recommendations and principles of AS4970-2009 Protection of trees on development sites to ensure it is adequately protected.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Good
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	15.00 metres
<b>Structural Root Zone:</b>	3.85 metres



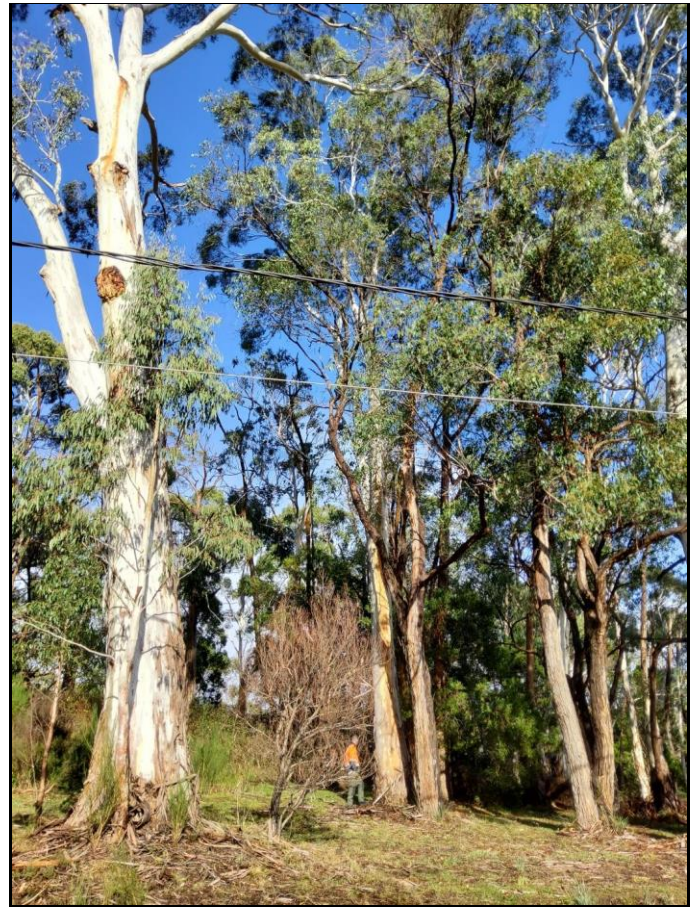
### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	Low
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	10.80 metres
<b>Structural Root Zone:</b>	3.30 metres



### Observations

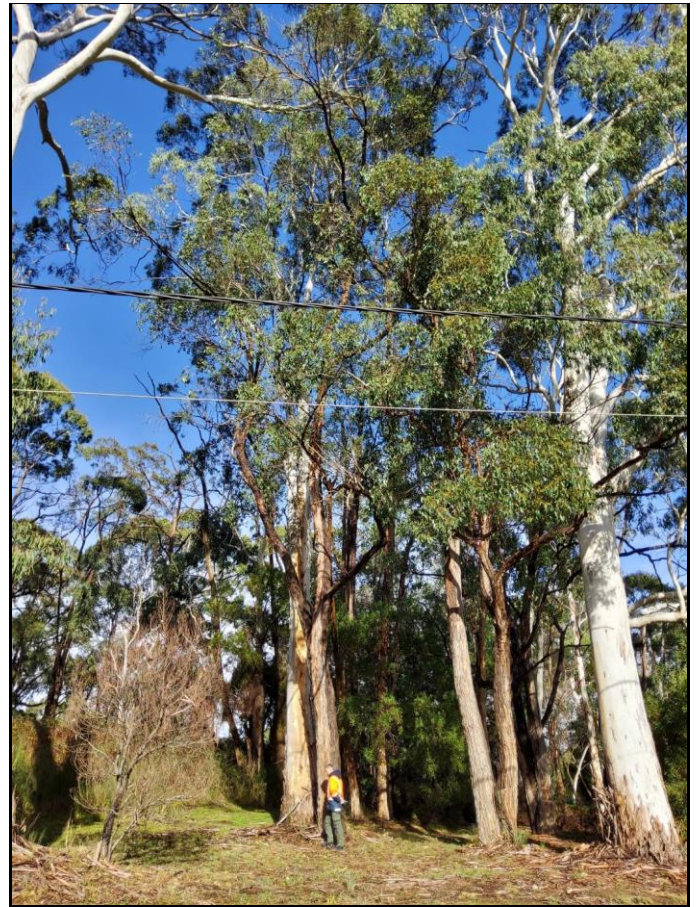
The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This tree has a moderate trunk lean however this is natural and not considered to affecting the overall structural rating.

<b>Legislative Status</b>	Controlled
<p>This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).</p>	
<b>Retention Rating</b>	Moderate
<p>This tree has a Moderate Retention Rating and could be considered for retention in any future development.</p>	
<b>Development Impact</b>	Low
<p>The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.</p>	
<b>Action</b>	Protect Root Zone
<p>Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.</p>	



## Messmate Stringy-bark

Inspected:	9 June 2021
Height:	10-15 metres
Spread:	10-15 metres
Health:	Fair
Structure:	Fair
Form:	Fair
Trunk Circumference:	<2 metres
Useful Life Expectancy:	<10 years
Tree Protection Zone:	7.44 metres
Structural Root Zone:	2.81 metres



### Observations

This tree is considered to be in fair condition due to the moderate quantity of deadwood in the crown and slightly reduced overall structural rating. Additionally, this tree has a number of poorly tapered branches throughout the crown.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. However, this tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.	
<b>Retention Rating</b>	<b>Moderate</b>
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	<b>Conflicted</b>
The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	



## Messmate Stringy-bark

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	10-15 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	9.34 metres
<b>Structural Root Zone:</b>	3.10 metres



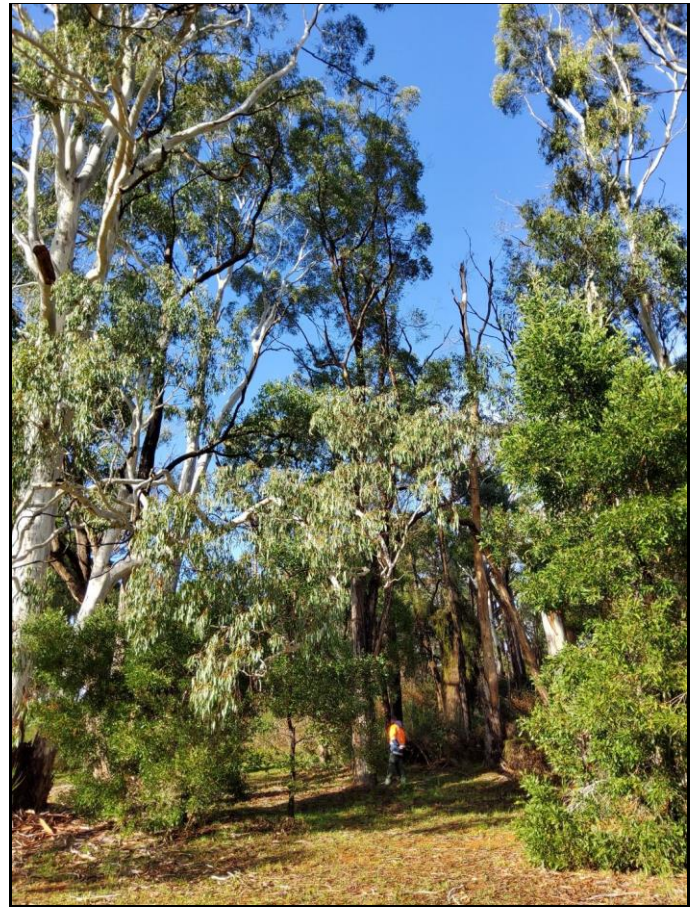
### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. There is included bark in the primary structure however this is not impacting the overall structural rating at this point.

<b>Legislative Status</b>	Controlled
<p>This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).</p>	
<b>Retention Rating</b>	Moderate
<p>This tree has a Moderate Retention Rating and could be considered for retention in any future development.</p>	
<b>Development Impact</b>	No Impact
<p>No encroachment into the Tree Protection Zone area has been identified.</p>	
<b>Action</b>	Protect Root Zone
<p>Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.</p>	

## Messmate Stringy-bark

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	5-10 metres
<b>Spread:</b>	5-10 metres
<b>Health:</b>	Good
<b>Structure:</b>	Poor
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	9.00 metres
<b>Structural Root Zone:</b>	3.04 metres



### Observations

This tree is considered to be in poor overall condition due to the structure of the primary trunk union which is supporting a dead leader.

<b>Legislative Status</b>	Controlled
<p>This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).</p>	
<b>Retention Rating</b>	Low
<p>This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.</p>	
<b>Development Impact</b>	Conflicted
<p>The location of this tree is such that it requires removal as part of the bushfire mitigation for this project.</p>	
<b>Action</b>	Removal Required
<p>Tree removal is required to facilitate the proposed development.</p>	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	>20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Fair
<b>Form:</b>	Good
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	>10 years
<b>Tree Protection Zone:</b>	14.94 metres
<b>Structural Root Zone:</b>	3.77 metres



### Observations

This tree is considered to be in fair overall condition due to it having a moderate history of branch failure impacting its structural rating and therefore its overall condition.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	High
This tree has a High Retention Rating and should be protected in any future development.	
<b>Development Impact</b>	No Impact
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	



## Messmate Stringy-bark

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	10-15 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	>10 years
<b>Tree Protection Zone:</b>	8.59 metres
<b>Structural Root Zone:</b>	2.99 metres



### Observations

This tree is considered to be in fair overall condition due to it having a moderate history of branch failure impacting its structural rating and therefore its overall condition.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than three metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Moderate
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	No Impact
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	>20 metres
<b>Spread:</b>	15-20 metres
<b>Health:</b>	Good
<b>Structure:</b>	Good
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	>20 years
<b>Tree Protection Zone:</b>	10.56 metres
<b>Structural Root Zone:</b>	3.27 metres



### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Moderate
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	No Impact
No encroachment into the Tree Protection Zone area has been identified.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009.	



## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	10-15 metres
<b>Spread:</b>	<5 metres
<b>Health:</b>	Fair
<b>Structure:</b>	Poor
<b>Form:</b>	Poor
<b>Trunk Circumference:</b>	>2 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	7.80 metres
<b>Structural Root Zone:</b>	2.88 metres



### Observations

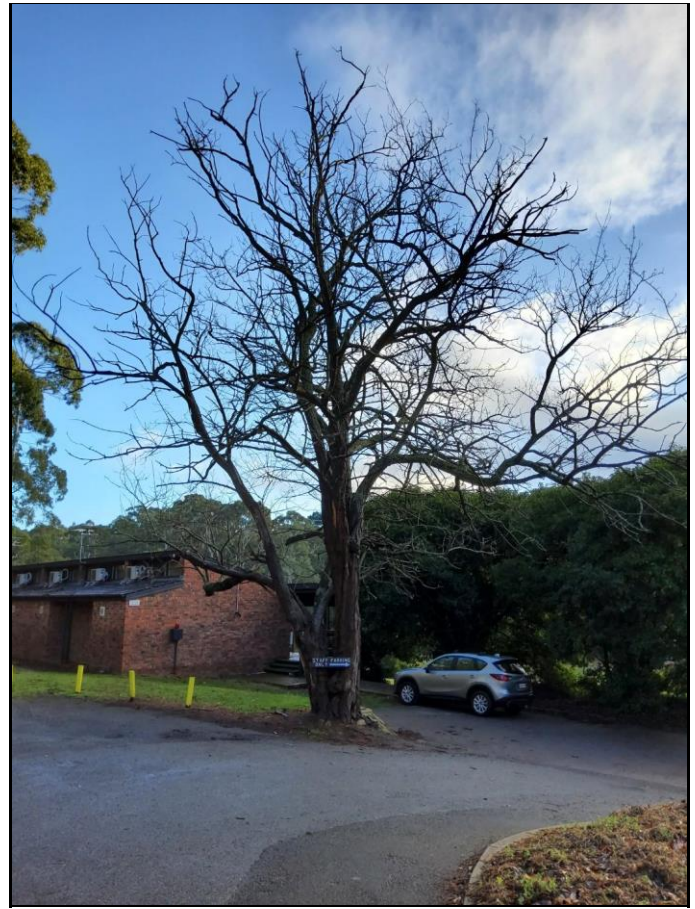
This tree is considered to be in poor overall condition due to a history of substantial failure, a moderate level of epicormic growth and an overall reduction in its health rating. The trunk of this tree has failed at approximately eight metres above ground level, with the crown now consisting of epicormic regrowth.

<b>Legislative Status</b>	Controlled
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. This tree has a trunk circumference greater than two metres however it is exempt from control under the PDI Act as it is controlled under the Native Vegetation Act 1991 as per Regulation 3F Sub Regulation (4)(d).	
<b>Retention Rating</b>	Low
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	Low
The identified encroachment is less than 10% of the TPZ area and not expected to impact tree viability.	
<b>Action</b>	Protect Root Zone
Protect the root zone of this tree in accordance with the recommendations and principles of AS4970-2009. It should be noted however that this tree is in poor condition and is not suitable for long term retention in this type of development.	



## Black Locust

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	10-15 metres
<b>Spread:</b>	10-15 metres
<b>Health:</b>	Poor
<b>Structure:</b>	Fair
<b>Form:</b>	Fair
<b>Trunk Circumference:</b>	>3 metres
<b>Useful Life Expectancy:</b>	<10 years
<b>Tree Protection Zone:</b>	10.01 metres
<b>Structural Root Zone:</b>	3.19 metres



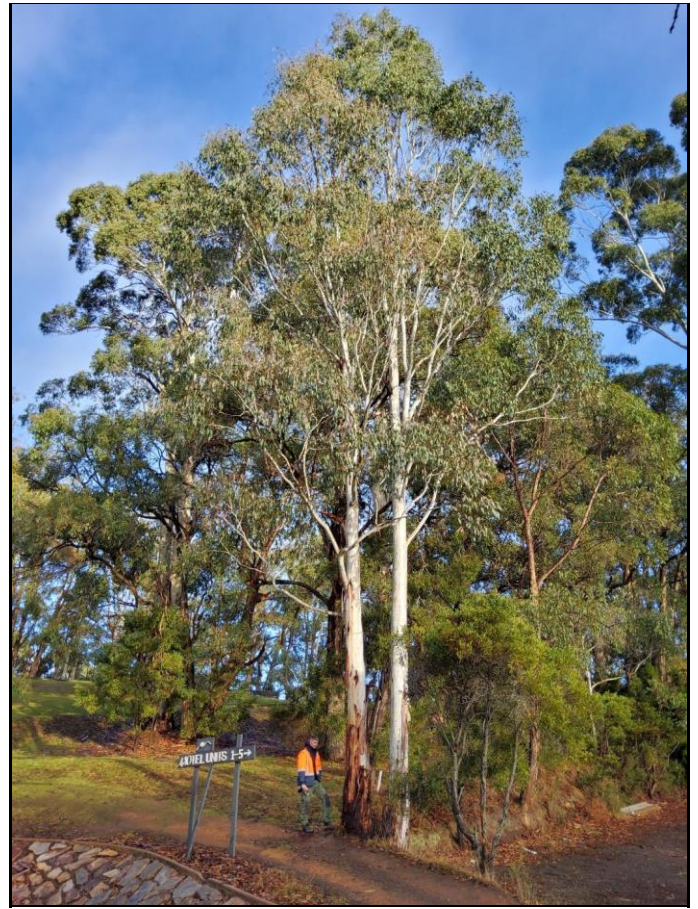
### Observations

This tree is considered to be in poor overall condition due to its poor health and reduced structure rating. This tree has a codominant form with included bark in the primary structure, there is also a moderate level of decay in the trunk and a substantial volume of deadwood in the crown.

<b>Legislative Status</b>	Exempt
This tree is not subject to control under either the Planning, Development and Infrastructure Act 2016 or the Native Vegetation Act 1991.	
<b>Retention Rating</b>	Low
This tree has a Low Retention Rating and should not form a material constraint to the redevelopment of this site.	
<b>Development Impact</b>	Conflicted
The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. On that basis the proposed development will negatively impact tree viability to the point where its removal is required.	
<b>Action</b>	Removal Required
Tree removal is required to facilitate the proposed development.	

## Manna Gum

<b>Inspected:</b>	9 June 2021
<b>Height:</b>	10-15 metres
<b>Spread:</b>	5-10 metres
<b>Health:</b>	Good
<b>Structure:</b>	Fair
<b>Form:</b>	Good
<b>Trunk Circumference:</b>	<2 metres
<b>Useful Life Expectancy:</b>	>10 years
<b>Tree Protection Zone:</b>	5.40 metres
<b>Structural Root Zone:</b>	2.47 metres



### Observations

This tree is considered to be in fair condition as indicated by the reduced overall structural rating. This tree has a moderate history of small diameter branch failure.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. However, this tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.	
<b>Retention Rating</b>	<b>Moderate</b>
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	<b>Conflicted</b>
The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. On that basis the proposed development will negatively impact tree viability to the point where its removal is required.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	



## Manna Gum

Inspected:	9 June 2021
Height:	10-15 metres
Spread:	5-10 metres
Health:	Good
Structure:	Good
Form:	Good
Trunk Circumference:	<2 metres
Useful Life Expectancy:	>20 years
Tree Protection Zone:	6.24 metres
Structural Root Zone:	2.61 metres



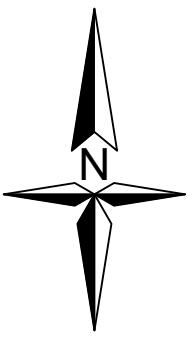
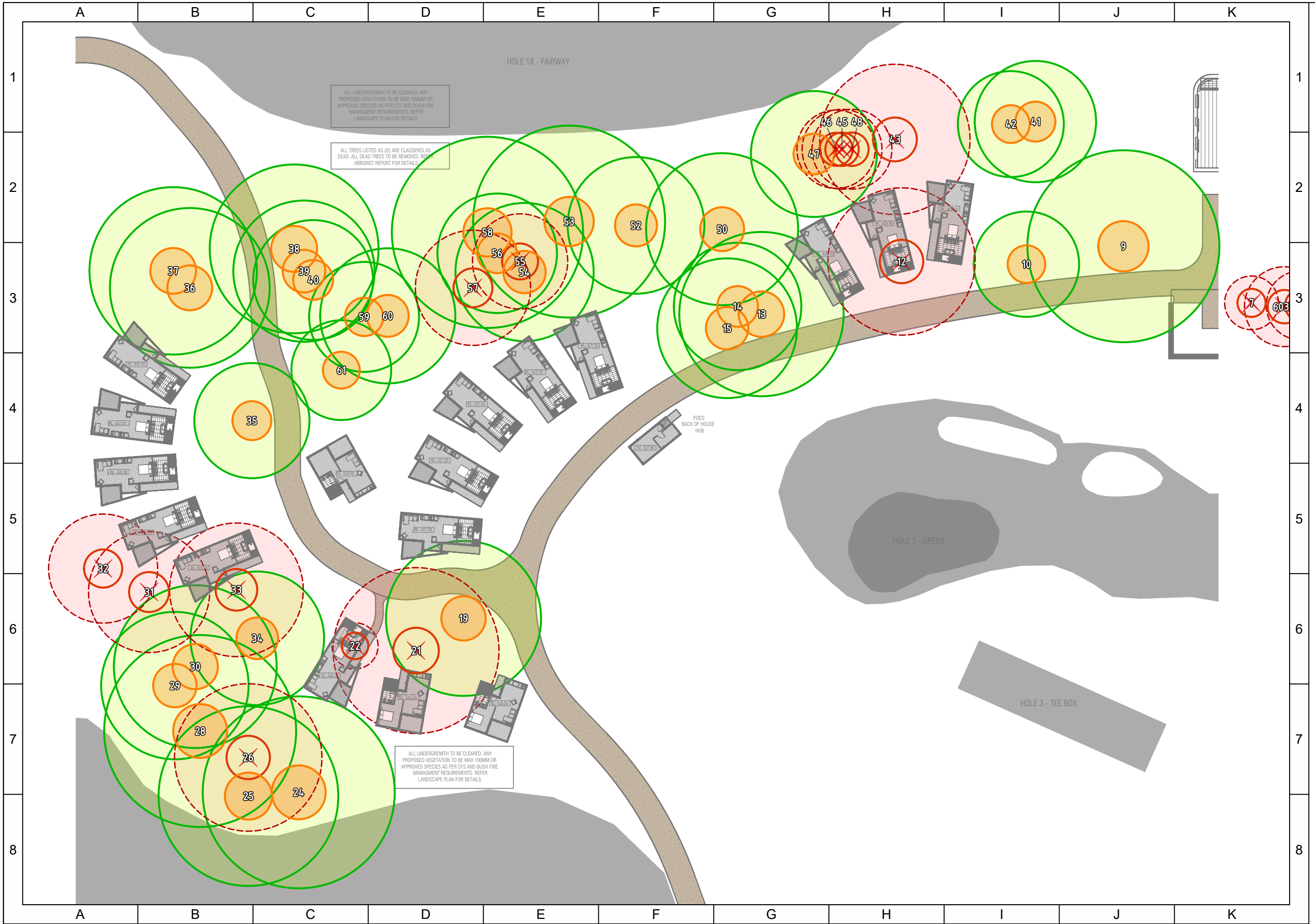
### Observations

The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.

<b>Legislative Status</b>	<b>Controlled</b>
This tree appears to be naturally occurring indigenous vegetation in an area subject to regulation under the Native Vegetation Act 1991 and its management is therefore controlled under this Act. However, this tree does not achieve a regulated trunk circumference and therefore is not regulated by the Planning, Development and Infrastructure Act 2016.	
<b>Retention Rating</b>	<b>Moderate</b>
This tree has a Moderate Retention Rating and could be considered for retention in any future development.	
<b>Development Impact</b>	<b>Conflicted</b>
The identified encroachment is greater than 10% of the TPZ area and will also impact the SRZ and/or the trunk. On that basis the proposed development will negatively impact tree viability to the point where its removal is required.	
<b>Action</b>	<b>Removal Required</b>
Tree removal is required to facilitate the proposed development.	



## Appendix C - Mapping

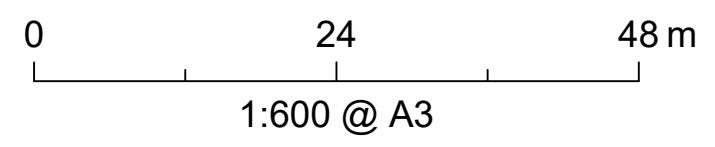


Legend	
<u>Trees to Remain</u>	
	TPZ
	SRZ
<u>Trees to be Removed</u>	
	TPZ
	SRZ

Date: 28/11/2022  
 Ref: ATS6360-035GoIRdDIR R1  
 Arborman Tree Solutions  
 23 Aberdeen Street  
 Port Adelaide SA 5015  
 0418 812 967  
[www.arborman.com.au](http://www.arborman.com.au)

## Tree Removals

Stirling Golf Club, 35 Golflinks Road, Stirling



## Appendix D - Tree Assessment Summary



# Tree Assessment Summary

Tree No.	Botanic Name	Legislative Status	Retention Rating	Development Impact	TPZ Radius	Observations	Action
7	<i>Eucalyptus obliqua</i>	Controlled	Low	Conflicted	4.20 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Removal Required
9	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	High	Low	15.00 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This tree has a moderate history of small diameter branch failure.	Specialised Construction
10	<i>Eucalyptus obliqua</i>	Controlled	Low	Low	8.23 metres	This tree is in poor overall condition as evidenced by the substantial volume of deadwood and the presence of stable included bark in the primary structure.	Specialised Construction
12	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Conflicted	11.51 metres	This tree is considered to be in poor overall condition due to the considerably reduced foliage density, with high levels of dieback and deadwood throughout the crown. There are a number of relatively poorly installed cables in the mid-crown of this tree between the codominant stems, these are restricting sap flow and may be a factor in the reduced crown condition.	Removal Required
13	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Moderate	Low	12.84 metres	This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown. This tree has a moderate trunk lean however this is natural and not considered to be affecting the overall structural rating.	Specialised Construction
14	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Low	9.96 metres	This tree is in poor overall condition as evidenced by the substantial levels of deadwood, branch failure and decay throughout the tree. There is a significant level of decay in the primary trunk union.	Specialised Construction

# Tree Assessment Summary

Tree No.	Botanic Name	Legislative Status	Retention Rating	Development Impact	TPZ Radius	Observations	Action
15	<i>Eucalyptus obliqua</i>	Controlled	Low	Low	10.92 metres	This tree is considered to be in poor overall condition as evidenced by the substantial volume of deadwood throughout the crown and moderate level of branch failure and epicormic growth.	Specialised Construction
19	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	High	Low	12.12 metres	This tree is considered to be in fair condition due to the moderate quantity of deadwood in the crown and slightly reduced overall structural rating.	Specialised Construction
21	<i>Eucalyptus obliqua</i>	Controlled	Low	Conflicted	12.96 metres	This tree is considered to be in poor overall condition as evidenced by the substantial level of dieback of the upper crown, the presence of poor quality branch unions and the moderate history of branch failure.	Removal Required
22	<i>Eucalyptus obliqua</i>	Controlled	Low	Conflicted	3.60 metres	This tree is considered to be in poor overall condition due to the level of dieback in the upper crown.	Removal Required
24	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	High	Low	15.00 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Protect Root Zone
25	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	High	No Impact	14.04 metres	This tree is considered to be in fair overall condition due to the moderate level of deadwood in the crown and the modest level of decay in the trunk and/or branches.	Protect Root Zone
26	<i>Eucalyptus obliqua</i>	Controlled	Low	Conflicted	11.52 metres	This tree is considered to be in poor overall condition as evidenced by the substantial volume of deadwood and moderate level of epicormic growth throughout the crown.	Removal Required
28	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	High	No Impact	15.00 metres	This tree is considered to be in fair overall condition due to its reduced structural rating associated with the moderate level of branch failure and the modest level of decay in the trunk and/or branches. This tree also has a moderate trunk lean that whilst not significant structurally is worthy of noting.	Protect Root Zone

# Tree Assessment Summary

Tree No.	Botanic Name	Legislative Status	Retention Rating	Development Impact	TPZ Radius	Observations	Action
29	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	No Impact	11.52 metres	This tree is in poor overall condition as evidenced by the substantial volume of deadwood and dieback and the significantly reduced foliage density. Additionally, this tree has a moderate history of branch failure and an increased level of epicormic growth.	Protect Root Zone
30	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Low	12.72 metres	This tree is poor overall condition as evidenced by the high level of deadwood and dieback and the moderate levels of decay and epicormic growth.	Protect Root Zone
31	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Conflicted	9.46 metres	This tree is considered to be in poor overall condition as evidenced by the elevated level of deadwood and dieback throughout the crown and the substantial history of branch failure and associated decay.	Removal Required
32	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Conflicted	8.52 metres	This tree is considered to be in poor overall condition due to the substantial history of branch failure and the moderate volume of deadwood.	Removal Required
33	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Conflicted	10.44 metres	This tree is considered to be in poor overall condition due to the substantial volume of deadwood and the significant level of decay in the trunk. This tree also has a moderate trunk lean that is significant structurally due to the level of decay in the trunk.	Removal Required
34	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Low	10.44 metres	This tree is considered to be in poor overall condition as evidenced by the high level of deadwood and the substantially reduced foliage density throughout the crown. This tree also displays a moderate level of decay, epicormic growth and branch failure.	Protect Root Zone
35	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Low	9.00 metres	This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown.	Specialised Construction



# Tree Assessment Summary

Tree No.	Botanic Name	Legislative Status	Retention Rating	Development Impact	TPZ Radius	Observations	Action
36	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Moderate	Low	12.48 metres	This tree is considered to be in fair overall condition as evidenced by the moderate levels of deadwood and epicormic growth throughout the crown.	Specialised Construction
37	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	High	Low	13.08 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Specialised Construction
38	<i>Eucalyptus obliqua</i>	Controlled	Moderate	Low	13.19 metres	This tree considered to be in poor overall condition as evidenced by the substantial reduction in foliage density, the increased level of dieback and the presence of a partially included union in the primary structure.	Specialised Construction
39	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Moderate	Low	11.04 metres	This tree is considered to be in fair condition as indicated by the reduced overall structural rating. This tree also has a moderate trunk lean that whilst not significant structurally is worthy of noting.	Specialised Construction
40	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Moderate	Low	9.36 metres	This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown. This tree also has a moderate trunk lean that whilst not significant structurally is worthy of noting.	Specialised Construction
41	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	No Impact	9.48 metres	This tree is considered to be in poor overall condition due to its poor structure rating. This tree has a significant history of small diameter branch failure and a moderate level of decay in the trunk.	Protect Root Zone
42	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	High	No Impact	8.28 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Protect Root Zone
43	<i>Eucalyptus obliqua</i>	Controlled	High	Conflicted	11.74 metres	This tree is considered to be in fair condition as indicated by the reduced overall structural rating. This tree has a moderate level of decay in the trunk.	Removal Required

# Tree Assessment Summary

Tree No.	Botanic Name	Legislative Status	Retention Rating	Development Impact	TPZ Radius	Observations	Action
45	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	High	Conflicted	6.24 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Removal Required
46	<i>Eucalyptus obliqua</i>	Controlled	High	Conflicted	6.12 metres	This tree is considered to be in fair overall condition due to its moderately reduced health rating.	Removal Required
47	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	High	Low	9.84 metres	This tree is considered to be in fair overall condition due to its moderately reduced health rating.	Protect Root Zone
48	<i>Eucalyptus obliqua</i>	Controlled	High	Conflicted	6.24 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Removal Required
50	<i>Eucalyptus obliqua</i>	Controlled	Low	Low	11.88 metres	This tree is considered to be in poor overall condition due to a reduced health rating including dieback and deadwood throughout the crown.	Protect Root Zone
52	<i>Eucalyptus obliqua</i>	Controlled	Moderate	No Impact	10.68 metres	This tree is considered to be in fair overall condition as evidenced by the moderate volume of deadwood and history of branch failure throughout the crown. The crown also retains an above average volume of epicormic growth.	Protect Root Zone
53	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	High	Low	15.00 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Protect Root Zone
54	<i>Eucalyptus viminalis ssp. viminalis</i>	Controlled	Moderate	Low	10.80 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. This tree has a moderate trunk lean however this is natural and not considered to affecting the overall structural rating.	Protect Root Zone
55	<i>Eucalyptus obliqua</i>	Controlled	Moderate	Conflicted	7.44 metres	This tree is considered to be in fair condition due to the moderate quantity of deadwood in the crown and slightly reduced overall structural rating. Additionally, this tree has a number of poorly tapered branches throughout the crown.	Removal Required

# Tree Assessment Summary

Tree No.	Botanic Name	Legislative Status	Retention Rating	Development Impact	TPZ Radius	Observations	Action
56	<i>Eucalyptus obliqua</i>	Controlled	Moderate	No Impact	9.34 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment. There is included bark in the primary structure however this is not impacting the overall structural rating at this point.	Protect Root Zone
57	<i>Eucalyptus obliqua</i>	Controlled	Low	Conflicted	9.00 metres	This tree is considered to be in poor overall condition due to the structure of the primary trunk union which is supporting a dead leader.	Removal Required
58	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	High	No Impact	14.94 metres	This tree is considered to be in fair overall condition due to it having a moderate history of branch failure impacting its structural rating and therefore its overall condition.	Protect Root Zone
59	<i>Eucalyptus obliqua</i>	Controlled	Moderate	No Impact	8.59 metres	This tree is considered to be in fair overall condition due to it having a moderate history of branch failure impacting its structural rating and therefore its overall condition.	Protect Root Zone
60	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Moderate	No Impact	10.56 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Protect Root Zone
61	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Low	Low	7.80 metres	This tree is considered to be in poor overall condition due to a history of substantial failure, a moderate level of epicormic growth and an overall reduction in its health rating. The trunk of this tree has failed at approximately eight metres above ground level, with the crown now consisting of epicormic regrowth.	Protect Root Zone
101	<i>Robinia pseudoacacia</i>	Exempt	Low	Conflicted	10.01 metres	This tree is considered to be in poor overall condition due to its poor health and reduced structure rating. This tree has a codominant form with included bark in the primary structure, there is also a moderate level of decay in the trunk and a substantial volume of deadwood in the crown.	Removal Required



# Tree Assessment Summary

Tree No.	Botanic Name	Legislative Status	Retention Rating	Development Impact	TPZ Radius	Observations	Action
602	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Moderate	Conflicted	5.40 metres	This tree is considered to be in fair condition as indicated by the reduced overall structural rating. This tree has a moderate history of small diameter branch failure.	Removal Required
603	<i>Eucalyptus viminalis</i> <i>ssp. viminalis</i>	Controlled	Moderate	Conflicted	6.24 metres	The health and structure of this tree indicate it is in good overall condition and has adapted to its local environment.	Removal Required

## Appendix E - Tree Protection Zone Guidelines

## **Tree Protection Zone General Specifications and Guidelines**

The Tree Protection Zone(s) is identified on the site plan. The TPZ is an area where construction activities are regulated for the purposes of protecting tree viability. The TPZ should be established so that it clearly identifies and precludes development/construction activities including personnel.

If development activities are required within the TPZ then these activities must be reviewed and approved by the Project Arborist. Prior to approval, the Project Arborist must be certain that the tree(s) will remain viable as a result of this activity.

### **Work Activities Excluded from the Tree Protection Zone:**

- a) Machine excavation including trenching;
- b) Excavation for silt fencing;
- c) Cultivation;
- d) 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) Placement of fill;
- k) Lighting of fires;
- l) Soil level changes;
- m) Temporary or permanent installation of utilities and signs, and
- n) Physical damage to the tree.



## Protective Fencing

Protective fencing must be installed around the identified Tree Protection Zone (See Figure1). The fencing should be chain wire panels and compliant with AS4687 - 2007 *Temporary fencing and hoardings*. Shade cloth or similar material should be attached around the fence to reduce dust, other particulates and liquids entering the protected area.

Temporary fencing on 28kg bases are recommended for use as this eliminates any excavation requirements to install fencing. Excavation increase the likelihood of root damage therefore should be avoided where possible throughout the project.

Existing perimeter fencing and other structures may be utilised as part of the protective fencing.

Any permanent fencing should be post and rail with the set out determined in consultation with the Project Arborist.

Where the erection of the fence is not practical the Project Arborist is to approve alternative measures.

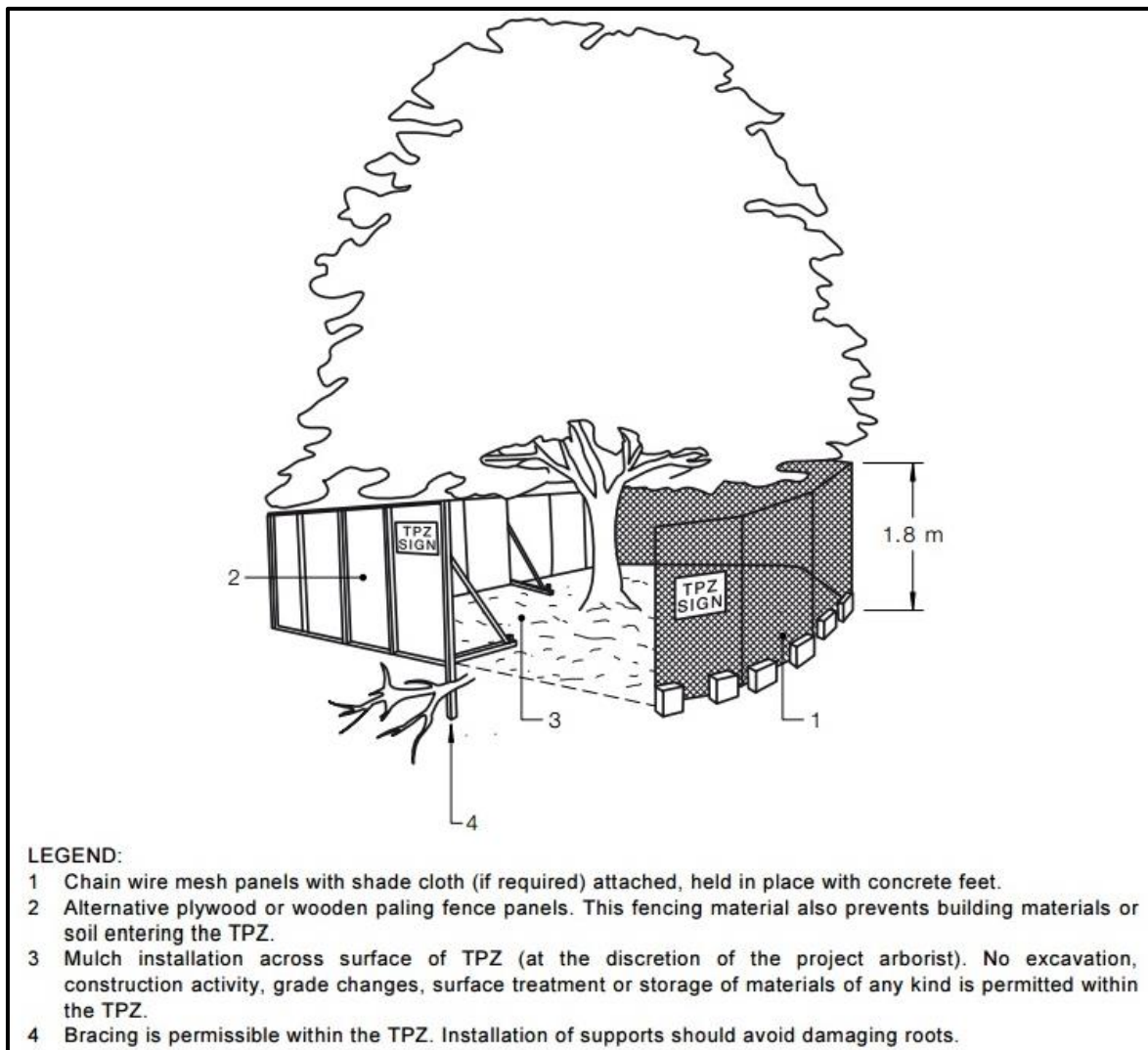


Figure 1 Showing example of protection fencing measures suitable.

## Other Protection Measures

### General

When a TPZ exclusion area cannot be established due to practical reasons or the area needs to be entered to undertake construction activities then additional tree protection measures may need to be adopted. Protection measures should be compliant with AS4970-2009 and approved by the Project Arborist

### Installation of Scaffolding within Tree Protection Area.

Where scaffolding is required within the TPZ branch removal should be minimised. Any branch removal required should be approved by the Project Arborist and performed by a certified Arborist and performed in accordance with AS4373-2007. Approval to prune branches must be documented and maintained.

Ground below scaffold should be protected by boarding (e.g. scaffold board or plywood sheeting) as shown in Figure below. The boarding should be left in place until scaffolding is removed.

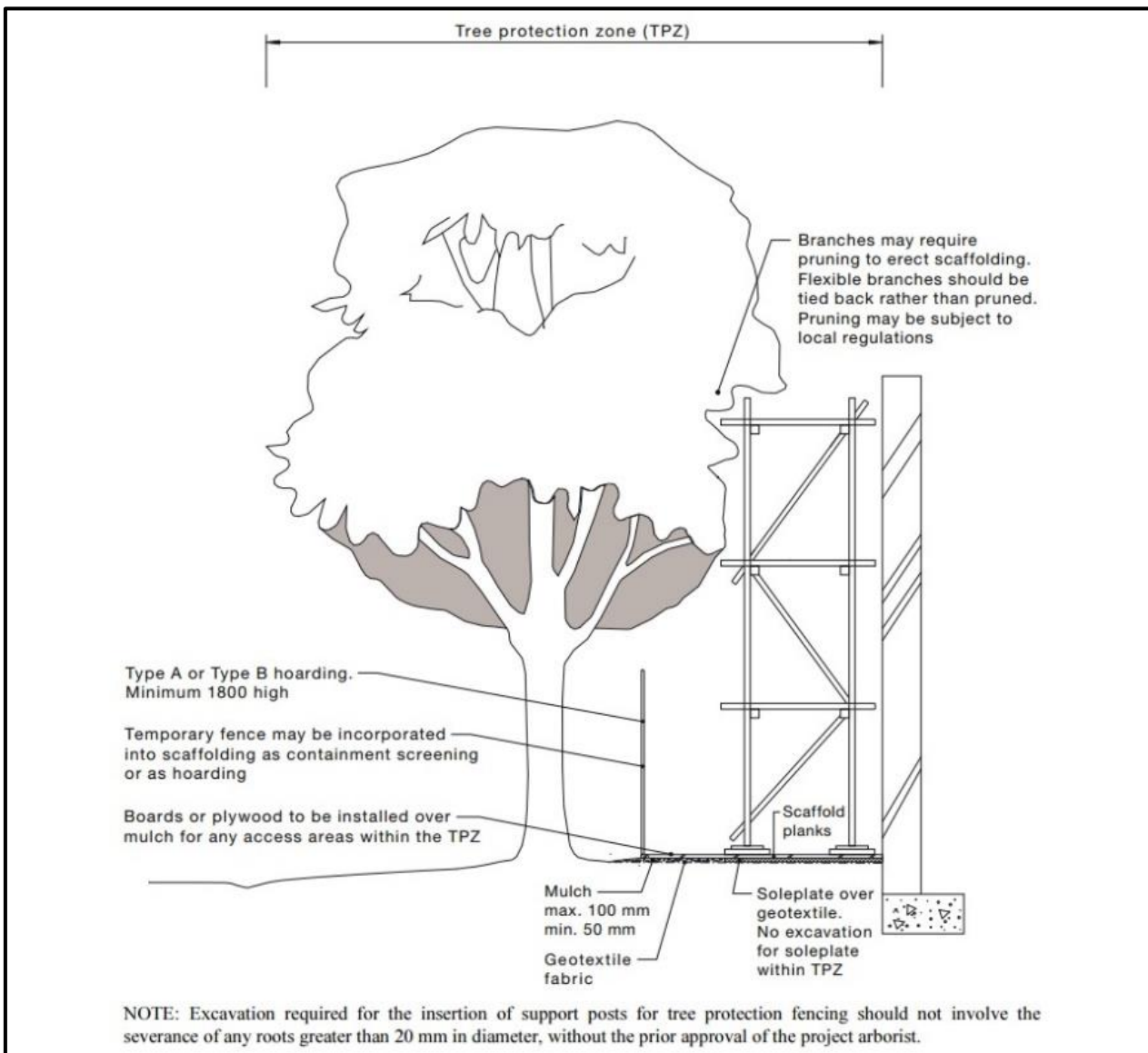


Figure 2 – Showing scaffolding constructed within TPZ.

## Ground Protection

Where access is required within the TPZ ground protection measures are required. Ground protection is to be designed to prevent both damage to the roots and soil compaction.

Ground protection methods include the placement of a permeable membrane beneath a layer of non-compactable material such as mulch or a no fines gravel which is in turn covered with rumble boards or steel plates.

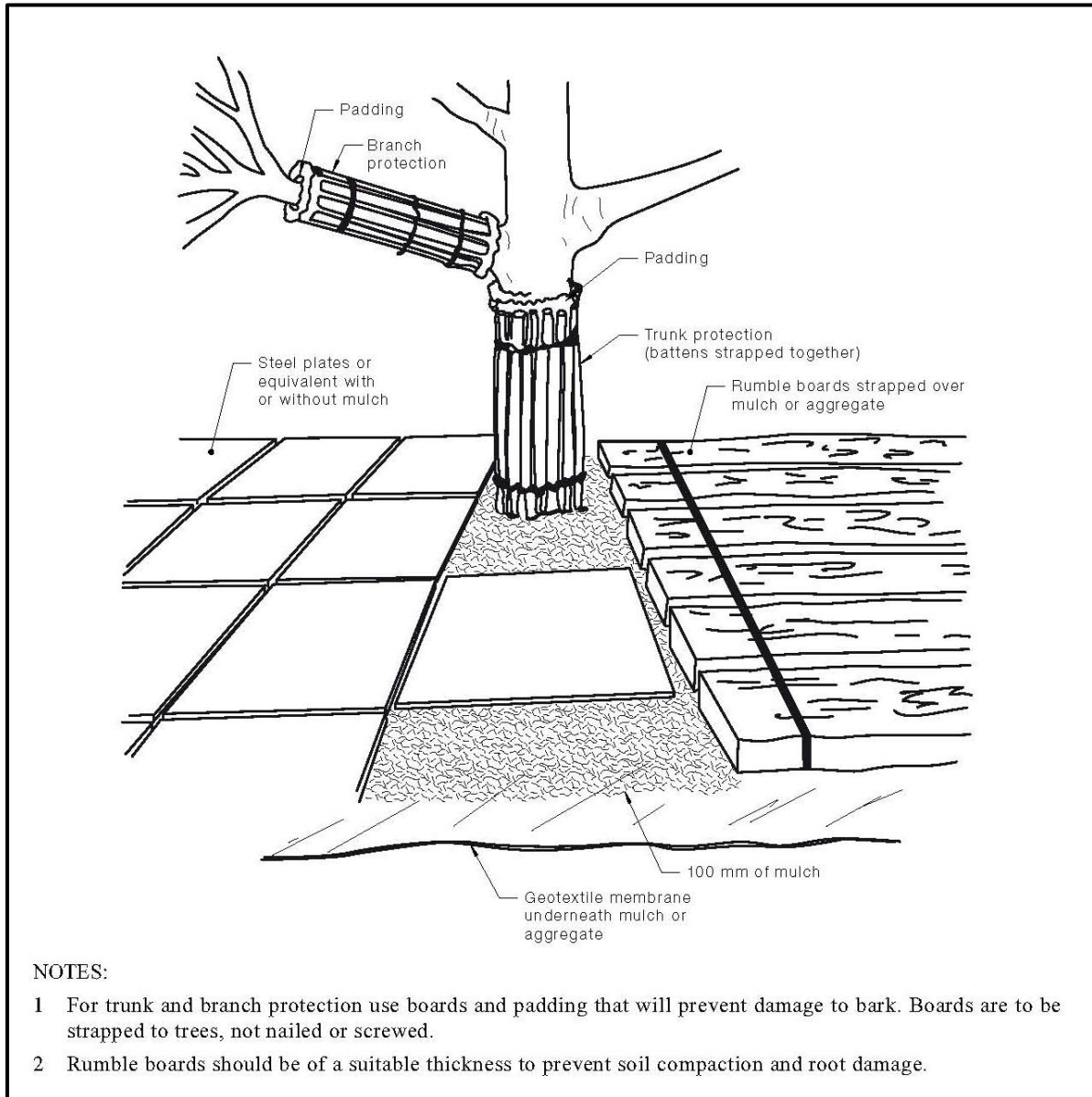


Figure 3 – Ground protection methods.

### Document Source:

Diagrams in this document are sourced from AS4970-2009 Protection of trees on development sites. Further information and guidelines are available in within that document.



## Paving Construction within a Tree Protection Zone

Paving within any Tree Protection Zone (TPZ) must be carried out above natural ground level unless it can be shown with non-destructive excavation (AirSpade® or similar) that no or insignificant root growth occupies the proposed construction area.

Due to the adverse effect filling over a Tree Protection Zone (TPZ) can have on tree health; alternative mediums other than soil must be used. Available alternative mediums include structural soils or the use of a cellular confinement system such as *Ecocell*®.

### Ecocell®

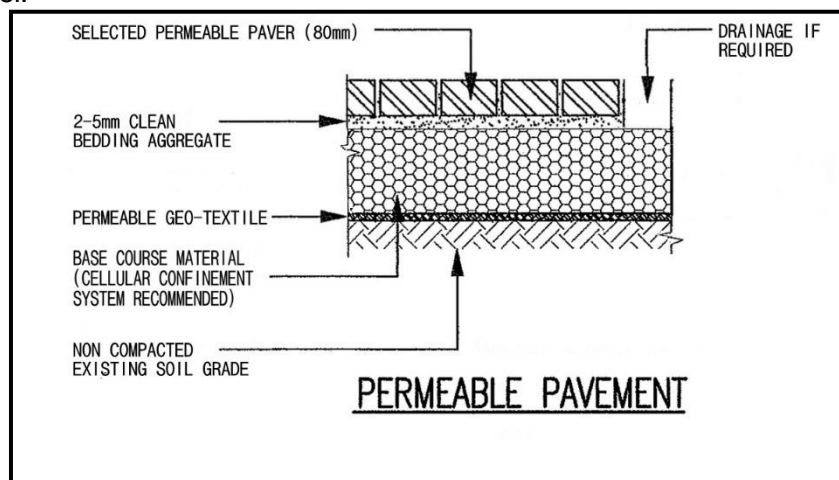
Ecocell® systems are a cellular confinement system that can be filled with large particle sized gravels as a sub-base for paving systems to reduce compaction to the existing grade.

### Site preparation

- Clearly outline to all contracting staff entering the site the purpose of the TPZ's and the contractors' responsibilities. No fence is to be moved and no person or machinery is to access the TPZ's without consent from the City of Unley and/or the Project Arborist.
- Fence off the unaffected area of the TPZ with a temporary fence leaving a 1.5 metre gap between the work area and the fence; this will prevent machinery access to the remaining root zone.

### Installation of Ecocell® and EcoTrihex Paving®

- Install a non-woven geotextile fabric for drainage and separation from sub base with a minimum of 600mm overlap on all fabric seams as required.
- Add Ecocell®, fill compartments with gravel and compact to desired compaction rate.
- If excessive groundwater is expected incorporate an appropriate drainage system within the bedding sand level.
- Add paving sand to required depth and compact to paving manufacturer's specifications.
- Lay EcoTrihex Paving® as per manufactures specifications and fill gaps between pavers with no fines gravel.
- Remove all debris, vegetation cover and unacceptable in-situ soils. No excavation or soil level change of the sub base is allowable for the installation of the paving.
- Where the finished soil level is uneven, gullies shall be filled with 20 millimetre coarse gravel to achieve the desired level.



This construction method if implemented correctly can significantly reduce and potentially eliminated the risk of tree decline and/or structural failure and effectively increase the size of the Tree Protection Zone to include the area of the paving.

## Certificates of Control

Stage in development	Tree management process	
	Matters for consideration	Actions and certification
Development submission	Identify trees for retention through comprehensive arboricultural impact assessment of proposed construction. Determine tree protection measures Landscape design	Provide arboricultural impact assessment including tree protection plan (drawing) and specification
Development approval	Development controls Conditions of consent	Review consent conditions relating to trees
<b>Pre-construction (Sections 4 and 5)</b>		
Initial site preparation	State based OHS requirements for tree work  Approved retention/removal  Refer to AS 4373 for the requirements on the pruning of amenity trees  Specifications for tree protection measures	Compliance with conditions of consent  Tree removal/tree retention/transplanting  Tree pruning Certification of tree removal and pruning  Establish/delineate TPZ Install protective measures Certification of tree protection measures
<b>Construction (Sections 4 and 5)</b>		
Site establishment	Temporary infrastructure Demolition, bulk earthworks, hydrology	Locate temporary infrastructure to minimize impact on retained trees Maintain protective measures Certification of tree protection measures
Construction work	Liaison with site manager, compliance Deviation from approved plan	Maintain or amend protective measures Supervision and monitoring
Implement hard and soft landscape works	Installation of irrigation services Control of compaction work Installation of pavement and retaining walls	Remove selected protective measures as necessary Remedial tree works Supervision and monitoring
Practical completion	Tree vigour and structure	Remove all remaining tree protection measures Certification of tree protection
<b>Post construction (Section 5)</b>		
Defects liability/ maintenance period	Tree vigour and structure	Maintenance and monitoring Final remedial tree works Final certification of tree condition

### Document Source:

This table has been sourced from AS4970-2009 Protection of trees on development sites. Further information and guidelines are available in within that document.

# Tree Protection Zone



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