

Arboricultural Impact Assessment

Client: Bondi Exchange Pty Ltd

Site address: 50 Botany Street, Bondi Junction

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Introduction

This Arboricultural Impact Assessment was commissioned by Bondi Exchange Pty Ltd and an onsite meeting was organized for 3rd October 2023.

The property is the old telecommunications tower and associated building at 50 Botany Street, Bondi Junction

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Methodology

Method:

A Visual Tree Assessment, (VTA¹) from ground level was undertaken on 21st October 2023. All information in this report is from that day. Photos were taken on an iPhone 12. Trunk diameters were measured using a Richter diameter tape measure. Tree heights and spreads were estimated.

Identification:

The identification of the trees was based on broad features visible at the time of inspection. It was not based upon a full taxonomical identification or comparison against an herbarium specimen. Wherever possible the selection of genus and probable species is provided.

Plans:

Parties other than the Urban Tree Care determined the location of the trees marked on the plans. We have added trees to the survey as they had not been added to the original plan. Referencing to the Plans by Urban Tree Care does not constitute confirmation of the accuracy of the Plans.

¹ (VTA) visual tree assessment as outlined by Dr Clause Mattheck in The Body Language of Trees

Scope of works

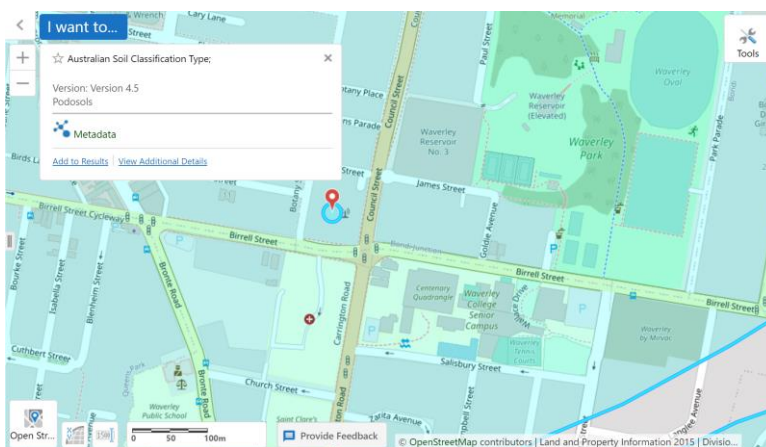
Assess all trees on site and the impact of the proposed development will have on the trees.

Identify trees to be retained and those that require removal to facilitate the proposed development plans.

Make recommendations to ensure that the impact on the retained trees is acceptable and complies with Australian Standard (AS 4970-2009 Protection of trees on development sites 2009).

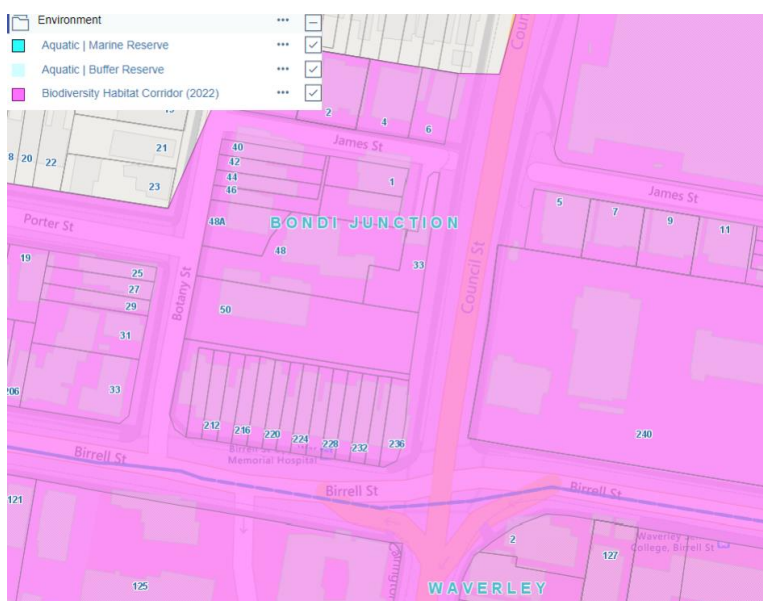
Tree retention value has been quantified using STARS

Soil



The soil type is Podsol.

Biodiversity



The site is in the biodiversity corridor.

Reference Documents

<https://geo.seed.nsw.gov.au>

Planning Proposal by Urban Design Analysis 23_053, Ref 19/09/2023

Survey by Harrison Friedman & Associates Ref 76386DT, Dated: 05/06/2023

Waverly Council Local Government Area Tree Management Policy

Australian Standard, AS4970-2009 Protection of Trees on Development Sites

Discussion

The site the old telecommunication tower at 50 Botany Street, Bondi Junction.

It is proposed to demolish the tower and building and construct new dwellings.

There are a number of trees that will be affected by the proposed development. Only 7 of them are on the subject site.

There are large concrete retaining walls on both sides of the site. It is a high possibility that these retaining walls have also contained the roots from all the trees in the neighbouring properties. As the site is all concrete to the boundary retaining walls it impossible to determine if the roots grow on to the subject site. Only during demolition of the concrete floor would we be able to assess if there are any roots growing onto the subject site.

To accommodate the proposed development trees 10, 11, 12, 13 and 14 would need to be removed. The plan uses up all the site and it would be impossible to retain these trees. The proposed entrance stairs running on the left and right of trees 8 and 9 are and there is a walkway that runs right where trees 10, 11, 12, 13 and 14 are.

The stairs are inside the Tree Protection Zone (TPZ) of trees 8 and 9 and a root map will have to be dug to determine if any roots will be affected by the proposed stairs. This will need to be done before final plans so to determine where the stairs can be located.

All other trees should be able to be retained and protected as outlined in the Tree Protection Plan on page 6 of this report.

Recommendations

All trees to be removed should be done by a suitable qualified (AQF3) Arborist.

Prior to and earth works the trees to be protected should be fenced off as outlined in the Tree Protection Zone and this should be inspected and signed off on by the site Arborist.

The root map for trees 8 and 9 will need to be dug by hand and by a suitable qualified (AQF5) Arborist.

Tree Protection Zone (TPZ)

Prior to commencing any work on the site, the trees that are to be retained must be isolated from the site using a 1.8-metre-high rigid temporary fence or appropriately classed hoarding.

Should the need arise to prune any branches to allow for installation of the hoarding this must be done by a qualified arborist and in accordance with the Australian Standard AS 4373-2007 "Pruning of Amenity Trees"

Tree Protection must form a part of the site induction process. All inductees must be made aware of the trees that are to be retained and the prohibited activities. The prohibited activities include:

- Entry of machinery or people.
- Storage of building materials.
- Parking of any kind.
- Erection or placement of site facilities.
- Removal or stockpiling of soil or site debris.
- Disposal of liquid waste including paint and concrete wash.
- Excavation or trenching of any kind (including irrigation or electrical connections).
- Attaching any signs or any other objects to the tree.
- Placement of waste disposal or skip bins.
- Pruning and removal of branches, except by a qualified Arborist.

A sign must be attached to the fenced areas with the words

"TREE PROTECTION ZONE – KEEP OUT"

The installation of the Tree Protection Zone must be done under the supervision of a level 5 Arborist.

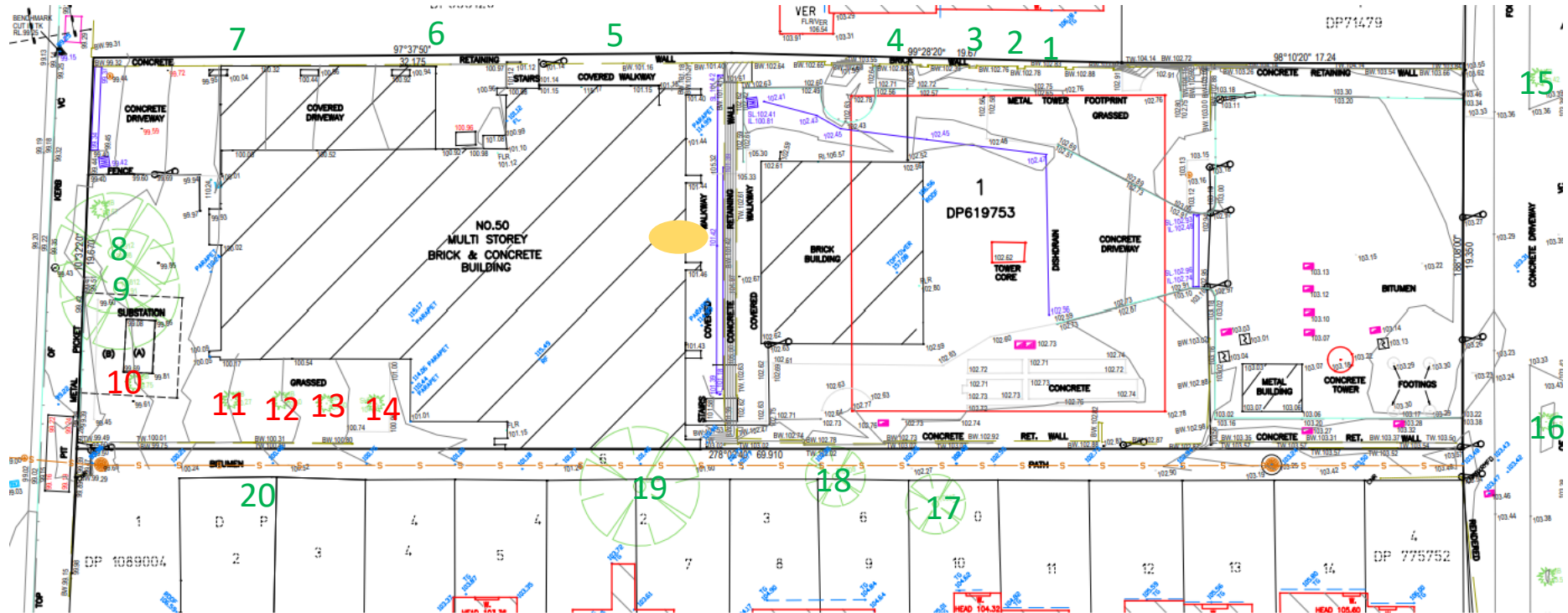
The distances from the trunk for the TPZ of each tree, is 12 cm for every 1 cm trunk diameter (DBH) this is a radial measurement. As indicated in Australian Standard AS 4970-2009 Protection of trees on development sites.

Tree Survey

Tree no.	Species	Diameter at Breast Height (DBH) mm	Height m	Spread m	Health Poor Fair Good	Structure Poor Fair Good	Comments	STARS	Tree Protection Zone (TPZ) m	Structural Root Zone (SRZ) m
1	Lilly Pilly, <i>Syzygium sp.</i>	110	6	2	F	F	Neighbours tree. Covered in Bougainvillea	Medium	2	1.5
2	Lilly Pilly, <i>Syzygium sp.</i>	100	6	2	F	F	Neighbours tree. Covered in Bougainvillea	Medium	2	1.5
3	Lilly Pilly, <i>Syzygium sp.</i>	110	6	2	F	F	Neighbours tree. Covered in Bougainvillea	Medium	2	1.5
4	Bougainvillea, <i>Bougainvillea sp.</i>	130	7	12	G	G	Covering trees 1, 2 and 3 and growing up the building. A bit out of control	Low	2	1.5
5	Orange jessamine, <i>Murraya puniculata</i>	50	2	10	F	F	Neighbours hedge	Low	2	1.5
6	Cypress, <i>Cupressus sp.</i>	200	7	3	G	G	Neighbours tree	Medium	2.4	1.7
7	Peppercorn, <i>Schinus mole</i>	300	8	6	P	F	Neighbours tree	Low	3.6	2
8	Broad-leaved paperbark, <i>Melaleuca quinquenervia</i>	460	9	5	F	F	Suppressed	Medium	5.5	2.4
9	Bangalay, <i>Eucalyptus botryoides</i>	520	18	20	G	G		High	6.2	2.6
10	Mulberry, <i>Morus sp.</i>	90	4	3	G	F	Probably self-seeded	Low	2	1.5
11	Bottlebrush, <i>Callistemon sp.</i>	60	2	1	F	F	Suppressed by the building and other trees	Low	2	1.5
12	Bottlebrush,	60	2	1	F	F	Suppressed by the building and other	Low	2	1.5

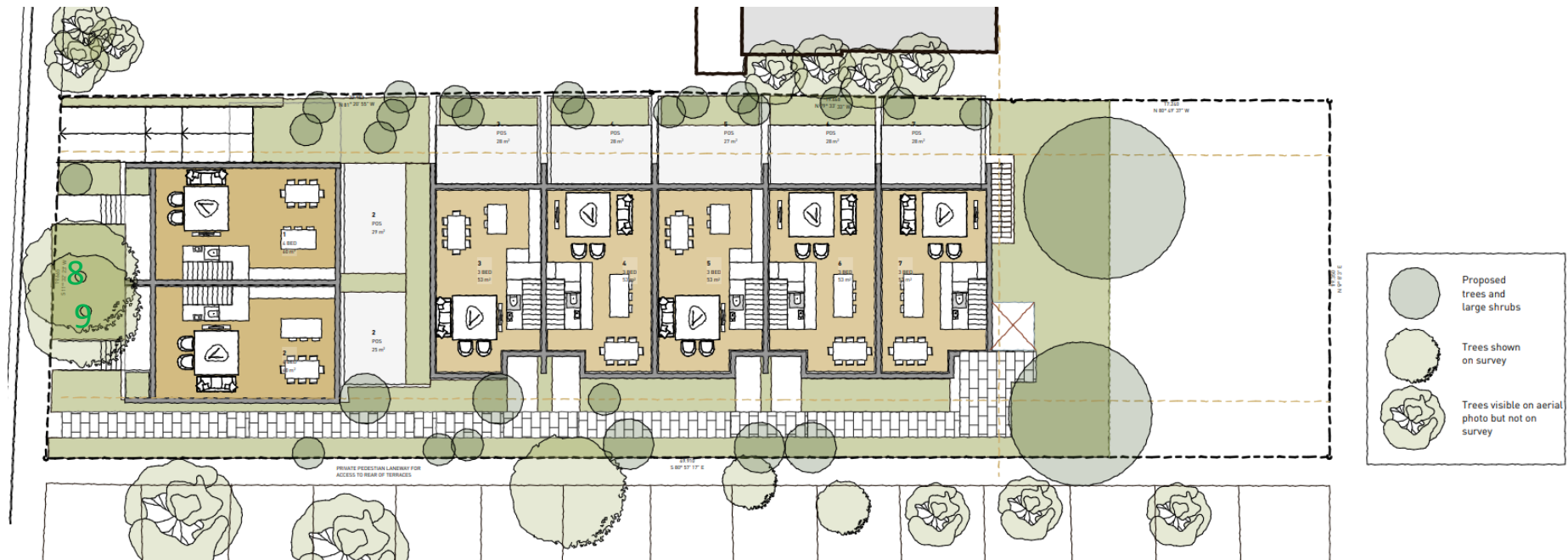
	<i>Callistemon sp.</i>						trees			
13	Bottlebrush, <i>Callistemon sp.</i>	60	2	1	F	F	Suppressed by the building and other trees	Low	2	1.5
14	Bottlebrush, <i>Callistemon sp.</i>	60	2	1	F	F	Suppressed by the building and other trees	Low	2	1.5
15	Sydney Red Gum, <i>Angophora costata</i>	100	4	2	G	G	Council street tree	Medium	2	1.5
16	Sydney Red Gum, <i>Angophora costata</i>	100	4	2	G	G	Council street tree	Medium	2	1.5
17	Jacaranda, <i>Jacaranda mimosifolia</i>	270	6	5	F	F	Neighbours tree	Medium	3.2	1.9
18	Blueberry Ash, <i>Elaeocarpus reticulatis</i>	300	8	5	G	F	Neighbours tree. Girdling roots	Medium	3.6	2
19	Spotted Gum, <i>Corymbia maculata</i>	480	22	12	G	G	Neighbours tree. Branches are over the existing building	High	5.7	2.4
20	Cypress, <i>Cupressus sp.</i>	330	7	5	G	G	Neighbours tree	Medium	3.9	2.1

Site Survey



A snip of the survey. We added trees 1-7 and 20 as they were not on the original survey. Trees marked in green to be retained and protected, trees marked in red to be removed.

Floor Plan



The snip of the proposed development

Photos



Trees 1, 2 and 3



Tree 4



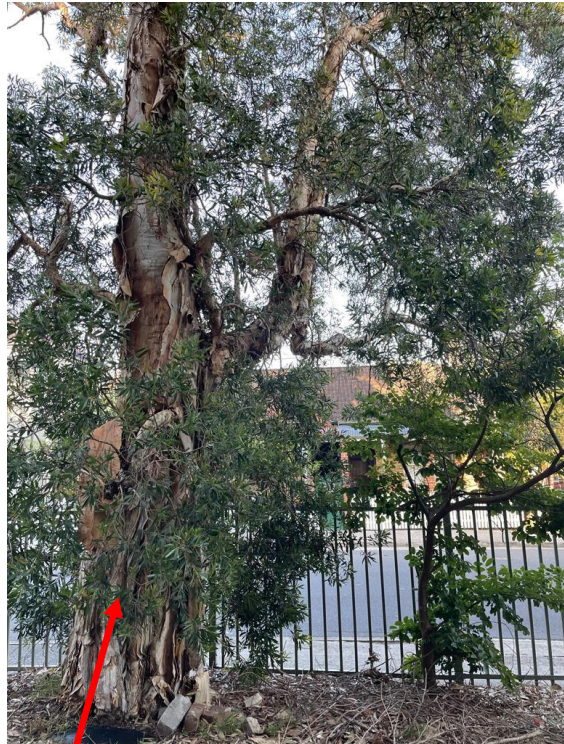
Trees 5



Tree 6



Tree 7



Tree 8



Tree 9



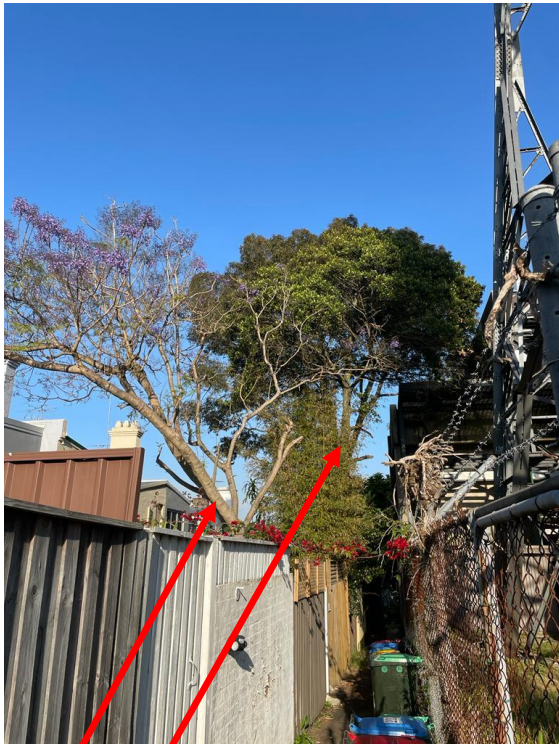
Tree 10, 11, 12, 13 and 14



Tree 15



Tree 16



Tree 17 and 18



Tree 19



Tree 20

STARS

Matrix - Sustainable Retention Index Value (SRIV) ©

Version 4, 2010

Developed by IACA – Institute of Australian Consulting Arboriculturists www.iaca.org.au

The matrix is to be used with the value classes defined in the Glossary for Age / Vigour / Condition.

An index value is given to each category where ten (10) is the highest value.

Age Class	Vigour Class and Condition Class					
	Good Vigour & Good Condition (GVG)	Good Vigour & Fair Condition (GVF)	Good Vigour & Poor Condition (GVP)	Low Vigour & Good Condition (LVG)	Low Vigour & Fair Condition (LVF)	Low Vigour & Poor Condition (LVP)
	Able to be retained if sufficient space available above and below ground for future growth. No remedial work or improvement to growing environment required. May be subject to high vigour. Retention potential - Medium – Long Term.	Able to be retained if sufficient space available above and below ground for future growth. Remedial work may be required or improvement to growing environment may assist. Retention potential - Medium Term. Potential for longer with remediation or favourable environmental conditions.	Able to be retained if sufficient space available above and below ground for future growth. Remedial work unlikely to assist condition, improvement to growing environment may assist. Retention potential - Short Term. Potential for longer with remediation or favourable environmental conditions.	May be able to be retained if sufficient space available above and below ground for future growth. No remedial work required, but improvement to growing environment may assist vigour. Retention potential - Short Term. Potential for longer with remediation or favourable environmental conditions.	May be able to be retained if sufficient space available above and below ground for future growth. Remedial work or improvement to growing environment may assist condition and vigour. Retention potential - Short Term. Potential for longer with remediation or favourable environmental conditions.	Unlikely to be able to be retained if sufficient space available above and below ground for future growth. Remedial work or improvement to growing environment unlikely to assist condition or vigour. Retention potential - Likely to be removed immediately or retained for Short Term. Potential for longer with remediation or favourable environmental conditions.
Young (Y)	YGVG - 9 Index Value 9 Retention potential - Long Term. Likely to provide minimal contribution to local amenity if height <5 m. High potential for future growth and adaptability. Retain, move or replace.	YGVF - 8 Index Value 8 Retention potential - Short – Medium Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height <5 m. Medium-high potential for future growth and adaptability. Retain, move or replace.	YGVP - 5 Index Value 5 Retention potential - Short Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height <5 m. Low-medium potential for future growth and adaptability. Retain, move or replace.	YLVG - 4 Index Value 4 Retention potential - Short Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height <5 m. Medium potential for future growth and adaptability. Retain, move or replace.	YLVF - 3 Index Value 3 Retention potential - Short Term. Potential for longer with improved growing conditions. Likely to provide minimal contribution to local amenity if height <5m. Low-medium potential for future growth and adaptability. Retain, move or replace.	YLVP - 1 Index Value 1 Retention potential - Likely to be removed immediately or retained for Short Term. Likely to provide minimal contribution to local amenity if height <5 m. Low potential for future growth and adaptability.
Mature (M)	MGVG - 10 Index Value 10 Retention potential - Medium - Long Term.	MGVF - 9 Index Value 9 Retention potential - Medium Term. Potential for longer with improved growing conditions.	MGVP - 6 Index Value 6 Retention potential - Short Term. Potential for longer with improved growing conditions.	MLVG - 5 Index Value 5 Retention potential - Short Term. Potential for longer with improved growing conditions.	MLVF - 4 Index Value 4 Retention potential - Short Term. Potential for longer with improved growing conditions.	MLVP - 2 Index Value 2 Retention potential - Likely to be removed immediately or retained for Short Term.
Over-mature (O)	OGVG - 6 Index Value 6 Retention potential - Medium - Long Term.	OGVF - 5 Index Value 5 Retention potential - Medium Term.	OGVP - 4 Index Value 4 Retention potential - Short Term.	OLVG - 3 Index Value 3 Retention potential - Short Term. Potential for longer with improved growing conditions.	OLVF - 2 Index Value 2 Retention potential - Short Term.	OLVP - 0 Index Value 0 Retention potential - Likely to be removed immediately or retained for Short Term.



STARS Matrix

Table 1.0 Tree Retention Value - Priority Matrix.

		Significance				
		1. High	2. Medium	3. Low		
		Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline
Estimated Life Expectancy	1. Long >40 years					
	2. Medium 15-40 Years					
	3. Short <1-15 Years					
	Dead					
<p><u>Legend for Matrix Assessment</u></p> <p>Priority for Retention (High) - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 <i>Protection of trees on development sites</i>. Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.</p> <p>Consider for Retention (Medium) - These trees may be retained and protected. These are considered less critical; however, their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.</p> <p>Consider for Removal (Low) - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.</p> <p>Priority for Removal - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.</p>						



REFERENCES

- Australia ICOMOS Inc. 1999, *The Burra Charter – The Australian ICOMOS Charter for Places of Cultural Significance*, International Council of Monuments and Sites, www.icomos.org/australia
- Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.
- Footprint Green Pty Ltd 2001, *Footprint Green Tree Significance & Retention Value Matrix*, Avalon, NSW Australia, www.footprintgreen.com.au