

2 Burley Road Padstow 2211

Predevelopment Tree Assessment Report

Prepared for:

Mr. Milos

Prepared By:

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Synopsis

The report was commissioned by Mr. Milos (the owner of the property), to assess the health, condition, and potential impacts of the proposed development on trees growing on the site of proposed development **2 Burley Road Padstow 2211** and to provide recommendations as a part of the process in obtaining a Development Application.

The proposed development's plan is to carry out demolition of existing structures and "Proposed Double Storey house"

The report is aimed at determining trees that may be retained as part of the surrounding landscape in the long term and guiding the design process of the development to comply with the council's development consent conditions. This report is concerned only with health and condition of the subject trees and the potential impacts from the proposed development. It takes no account of root mapping or invasive structural strength assessment of the trees.

A Visual Tree Assessment (VTA) was conducted from ground level employing techniques developed by Mattheck & Breloer 1994. A total of twenty-five trees (25) were assessed T1, T2, etc. through to T25, a metal tag with the tree number will be placed on the trunk helping identification during development works. (Refer to image 2 & Appendix II)

The subject site **2 Burley Road Padstow 2211** is within the CANTERBURY-BANKSTOWN COUNCIL and it is not noted to be within a "Heritage Conservation Area" (**Bankstown Local Environmental Plan 2015**).

On the 4th of August 2022, an unaccompanied site visit was conducted, under good weather condition (Sunny days). The trees were given a SULE (Safe and Useful Life Expectancy) and Sustainable Retention Index Value (SRIV) rating to determine its retention value in accordance with the landscape significance of the trees. The trees were placed into three categories for retention; High (retain), Moderate (retain if possible) and low or very low (remove). All detailed assessment based on site visit and data will be documented in the appendices.

There are 25 (twenty five) trees were discarded on the subjected site and two trees (2) on the council verge of Burley Road

Tree protection Zone (TPZ's) and structural rooting zones (SRZ's) were calculated for each tree in accordance with AS4970-2009 Protection tree of development sites.

Recommendations for removal or retention will be based on the proposed works and compatibility of the tree as well as the trees hazard potential or the Rating mentioned above.

A systematic process has been used to assess the level of risk that the trees pose to the surrounding houses and the land users; a Tree Risk Assessment will be completed based on the tree at the time of the assessment and the areas use. It is the ISA Tree Risk Assessment Best Management Practice Method (Dunster et al.2017). The ISA methodology depends on two 4X4 matrices to produce a qualitative risk rating. The ISA BMP is consistent with the International Standards Organization. Refer Appendix D

The report will assess any potential impacts for tree nominated to be retained and attempt to remove or minimize them where possible. Recommended tree protection measures, as set out in the Australian Standard AS4970 Protection of trees on development sites will be nominated as required.

Within the subject site, two native trees were planted on the council verge of Burley Road as part of the streetscape. The remaining tree species within the assessment area are exotic species. (mainly citrus fruit trees or Cocos Palm trees).

Four trees out of twenty-five were identified to retained for future growth

Twenty trees out of twenty-five are listed as as undesirable species under Canterbury Bankstown Council, Council consent is not required to remove or prune these trees. They were identified to be removed. Tree (T16) *Gordonia axillaris* was identified for removal in order to allow the works to proceed.

General tree protection measures were identified and documented in an effort to preserve the trees and maintain the landscape amenity of the site. Alteration of the proposed development will be recommended if it helps in the trees' retention.

No aerial inspections were performed at the time of assessment, however aerial inspection may be included as a part of the recommendation of this report. No invasive tests (i.e. Resistograph, Picus Tomograph) were performed at the time of inspection.

Map of site location (Google Sixmaps Photos).

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2. Introduction

This report has been commissioned by Mr. (the owner of the property), to assess the trees, which *are* growing on the proposed site development (**2 Burley Road Padstow 2211**), to provide an arboricultural report on the potential impacts on the trees from the proposed development works at the site. The client stated that the trees have been nominated to be inspected in relation to obtain a development application.

The development relates to carry out demolition of existing structures and “Proposed double Storey House”

The majority of the trees species within the assessment area are exotic species, except two trees (T24 & T25).

2.1 Site Location map



Image 1: Aerial view of the site shows its context and location (source six maps)

3. Aim

The report is aimed to assess the health condition of existing trees and potential impacts of the proposed development on the trees, also to give advises and recommendations about the tree’s conditions for its future management, in order to identify individual tree that may be preserved as a sustainable part of landscape in the long term.

Appendix E- Tree Impact and Assessment Table (see Key Words (Appendices: A, B & C)

Tree #	Botanical name & Common name	DAB (m)	DBH (cm)	Height (m)	Density (%)	Crown			TPZ (m)	SRZ (m)	Encroachment%		Age class (Y, SM, M, OM)	Status (Native, Heritage,	Tree retention value matrix			Risk Rating	Recommendation
T1	<i>Cupressus sempervirens</i> Mediterranean Cypress	0.19	20	7	80	Spread (m)	Class (D, C, I, S)	E	2.4	1.6	TPZ (%)	SRZ (%)	M	E	SULE	Tree Retenti	SRIV	Low	Retain/tree management
Condition comments on tree as seen on the site: it is a mature tree with a moderate potential to contribute to amenity," that showed good health and vigour. It is Located on the eastern border of the site close to the driveway. It was identified to be retained for future growth with management. (Refer image: 2)																			
T2	<i>Persea americana</i> Avocado	0.14	13	6	80	Spread (m)	Class (D, C, I, S)	E	2	1.5	TPZ (%)	SRZ (%)	S M	Exotic	Medium 2(b)	Low	MGVF-6	Low	Remove/replace
Condition comments on tree as seen on the site: is a semi-mature exotic tree which is single-trunked at 8metres tall it was identified to be removed. Remove and replace in the new landscape plan is recommended and should be replaced by an appropriate species and according to the council removal regulations. (Refer image: 4)																			
T3, T5, T7, T8, T13, T20 & T22	<i>Syagrus romanzoffiana</i> (Cocos Palm)	0.09 To 0.55	3 to 49	1 m to 8	40 to 80	Spread (m)	Class (D, C, I, S)	E	2 to 5.8	2.6 to 1.5	TPZ (%)	SRZ (%)	S to M	E	Remove 4 (e)	Low	YGVF to MGVF-9	Low	Remove and replace
Ranges between																			
Comments on tree as seen on the site: Several trees (Seven Cocos Palm) are scattered within the site and they are proposed to be removed. Regardless of their location from the proposed development, these trees are listed as undesirable species under Canterbury Bankstown Council. In order to compensate for loss of amenity resulting from removal of these trees consideration should be taken to replacement planting according to the council regulations. (Refer images: 5, 6 & 7)																			

Appendix E- Tree Impact and Assessment Table (See Key Words (Appendices: A, B & C)																																	
Tree #	<u>Botanical name</u> & <u>Common name</u>	DAB (m)		DBH (cm)	Height (m)	Density (%)	Crown			TPZ (m)	SRZ (m)	Encroachment%		Age class (Y, SM, M, OM)	Status (Native, Heritage, Remnant,	<u>Tree retention value matrix</u>			Risk Rating	Recommendation													
		SULE			Tree Retention value	SRIV																											
T4	Mangifera indica Mango Tree	0.15			13	2	60				2	1.5	Nil	Nil	Y	N	YGVF-6			Low	Remove/ replace												
																Low																	
																Remove 4(a)																	
Condition comments on tree as seen on the site: This is a semi mature exotic tree, “Mango” that showed fair health condition and vigour. Regardless of its location from the proposed development, this tree is listed as undesirable species under Canterbury Bankstown Council. In order to compensate for loss of amenity resulting from removal of this tree consideration should be taken to replacement planting according the council regulations. (Refer images: 5 & 6)																																	
T6	Eriobotrya japonica Loquat Tree	0.19	21	6	80	2	2	S	2.5	1.6	Nil	Nil	SM	E	Remove 4(a)			Low	SMGVF-9	Low	Remove/ replace												
Condition comments on tree as seen on the site: This is a semi mature exotic tree, “Loquat ” that showed fair health condition and vigour. Regardless of its location from the proposed development, this tree is listed as undesirable species under Canterbury Bankstown Council. In order to compensate for loss of amenity resulting from removal of this tree consideration should be taken to replacement planting according the council regulations. (Refer image: 7)																																	
T9, T10, T12, T14, T18, T19, & T23	Citrus limon. Lemon Tree	Ranges between													E			Remove 4(a)			Low	MGVF-9 Or YGVF-6	Low	Remove/ replace									
		0.08 to 0.22		6 to 13		2 to 4		50 to 60		1 to 3		1 to 2		S		2		1.5 TO 1.6		Nil to 6%		Y to M											
Condition comments on tree as seen on the site: Several trees (Seven Citrus) are scattered within the site and they are proposed to be removed. Regardless of their location from the proposed development, these trees are listed as undesirable species under Canterbury Bankstown Council. In order to compensate for loss of amenity resulting from removal of these trees consideration should be taken to replacement planting according the council regulations. (Refer images: 7 & 8)																																	

4. Methodology:

4.1 Tree assessment

The tree was assessed visually from the ground, no aerial inspections or invasive testing were used. The trees were marked on the Site Plan, has drawn by WA, on 8/3/2022, Rev 4, Job No. 2017055.

The following trees assessment is based on the international society of arboriculture criteria and the Tree Survey form (Matheny & Clark, 1998), which includes: Botanical & common name, tree identification, dimension, age, condition etc. (Appendix A)

The following data was collected for each tree after Visual Tree Assessment:

The tree was reassessed visually from the ground **on 4th of August 2022** by using the method of Visual Tree Assessment (Mattheck & Breloer 1994). All my observations were made from ground level without detailed investigations and I estimated all dimensions unless otherwise indicated. All photographs were taken by myself during the site visit.

- The DBH diameter of the trunk at breast height was measured by using a diameter tape, at 1.4 m above the ground, expressed in centimeters.
- The DAB diameter of the trunk above the buttress was measured at the beginning of the basal part of the trunk by using diameter tape, expressed in meter.
- The heights and crown clearance were measured approximately, expressed by meters.
- Canopy spread was measured approximately along the four compass points (north, east, south and west) from the centre of the trunk of the edge of the drip-line, expressed in metres.
- Health and condition of the foliage, canopy density, signs/symptoms of pests/diseases and quantity of deadwood >20mm diameter, dieback, stubs from previous pruning, epicormic growth or any signs of stress.
- Structural condition; using visible evidence of bulges, cracks, lean, inclusion, wounds, fractures, cavities, and evidence of structural decay in the branches and stem, also the stability of the tree, soil cracking, exposed roots, excessive lean and root damage.
- The tree's status: considering whether the tree is listed as a heritage tree, or a significant tree under a tree preservation order.
- No aerial inspections were performed at the time of assessment, however aerial inspection may be included as a part of the recommendation of this report.
- Map of site location (Google Sixmaps Photos).

I stress that my inspection was of preliminary nature and it did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level.

- Tools: using a diameter tape, compass, Canon Camera, Teflon hammer, probe binoculars, screwdriver and recording instruments.

4.3 Tree retention value.

- 4.3.1 Retention value (SRIV):

According to the institute of Australian Consulting Arboriculturists, IACA Publications (2010) 'Sustainable Retention Index Value (SRIV), provides a dual method of objectively rating the viability of urban trees for development sites based on general tree and landscape assessment criteria, and a numeric index for each tree as a tree management tool', represented in a special matrix. (Appendix C)

SRIV is designed to achieve a quick and readily understood value for a tree but does not replace the need for a comprehensive assessment of a tree and as a tool is intended to be used in conjunction with or complementary to a detailed tree assessment. As a management tool the ongoing SRIV© assessment of a tree may indicate its response to

remedial works or other modifications to its growing environment over time. (IACA organization).

- 4.3.2 SULE (Safe & Useful Life Expectancy): The tree was given a Safe and Useful Life expectancy rating (Barell.J, 1996). SULE gives an estimate of the remaining sustainability of a tree in the landscape expressed as arrange of years. SULE has been calculated by estimating the maximum life expectancy (in years) of the tree species, growing in an urban environment in the Sydney basin. The calculated life expectancy has been modified in consideration of the tree's health, vigour, condition and it's sustainability on the site. The estimated SULE rating is located in (Appendix B)

-4.3.3 Landscape significance

The landscape significance of each tree has been determined by evaluating the following:

-The amenity value of the tree: considering the live crown size, canopy density, and visual impact in the landscape

- The environmental values of the tree: considering the identified environmental status of the tree; its botanical importance and its status as an identified habitat tree.

-The heritage values of the tree: considering cultural heritage, oboriginal heritage, historical significance and natural heritage status.

Tree Retention Value Matrix							
	Landscape Significance Rating						
Estimated life expectancy (SULE)	1 Significant	2 Very high	3 High	4 Moderate	5 Low	6 Very low	7 Insignificant
Long > 40 years	High Retention Value						
Medium 15-40 years			Moderate				
Short 5-15 years				Low Ret. Value			
Less than 5 years					Very low Retention Value		
Dead or Hazardous							
Table 1. Source ANDREW MORETON 2006							

4.4 Determining Tree Retention Value

Weighing up sustainability and landscape significance to arrive at a retention value is the next step in the process. We have seen that these two elements must be assessed independently, since they have a relationship with one another. The health, condition and longevity of an item (in this instance a tree) increase or diminish depending on its level of intactness, quality and potential longevity.

4.5 Determining Tree Risk Rating Matrix:

A systematic process has been used to identify and evaluate the level of risk that the trees pose to the surrounding houses and the land users; under Tree Risk Assessment (ISA).

It is the International Society of Arboriculture "Tree Risk Assessment Best Management Practice Method" (Dunster et al. 2017). Using the Two 4x4 matrices to produce a qualitative risk rating. The first Matrix is used to determine the correlation between the likelihood of the tree failure and the likelihood of impact. The second Matrix is used to determine the risk rating based on the potential consequences, the likelihood of failure and the likelihood of impact, within a specific time frame (1 year) The ISA BMP is consistent with the International Standards Organization. Refer Appendix

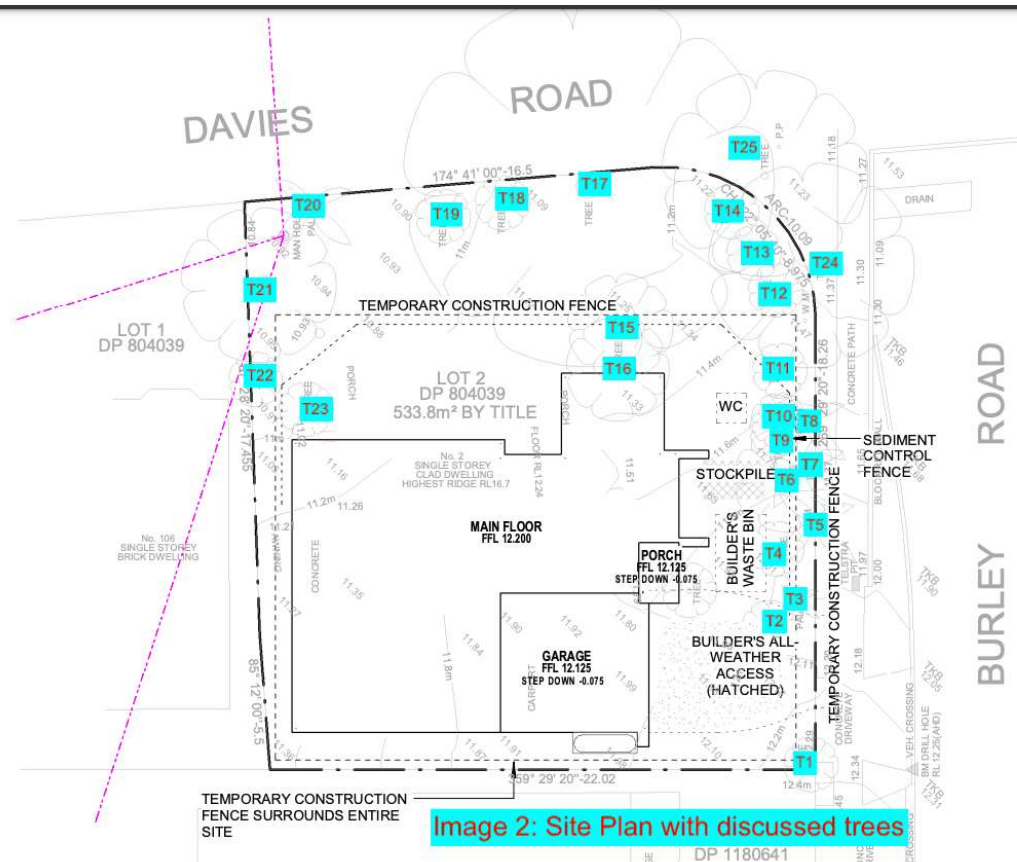
5. Observations

5.1 The Site visit: I carried out a site visit on on 4th of August 2022. Based on the visits I noticed the following:

All my observations were from ground level without detailed investigations and I estimated all dimensions unless otherwise indicated.

- Only two trees (T24 & T25) amongst the trees in question are located on the council verge, however all the other trees (23 trees) are scattered within the subjected site.

The trees have been located on the supplied Site plan and numbered. This plan is for illustrative purposes only and it should not be used for directly scaling measurement. Refer (Image 2 & Appendix I).



It is a corner house **allotment** located on the northern side of the Burley Rd with dual frontage; the front or northern boundary facing Burley Rd whilst the eastern boundary front Davies Rd, surrounded by similar residential developments. It is within the R2- Low Density Residential Land Zoning. topography aspect is flat. Pedestrian & vehicle entry is via Burley Road only.

5.2 Summary of results

(Key words Appendix A)

Tree no. 1

Nour_Co B & C.

2 Burley Road Padstow



- Botanical Name: *Cupressus sempervirens*
- Common Name: **Mediterranean Cypress**
- Location: **OS**
- DBH (cm): **20**
- DAB (m): **0.19**
- Canopy spreading: **(NS: 1), (EW: 1)**
- Height (m): **7m**
- Canopy density (%): **80**
- Type (N, R, E, P, S, Nox): **Exotic, planted.**
- Age Class (Y/S/M/O): **M**
- Crown class (D/C/I/S): **D**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F, PL**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Medium 2(d)
- TPZ (Tree Protection Zone) (R): **2.4m**
- SRZ (Structural Root Zone) (R): **1.6m**
- Risk: **Low**



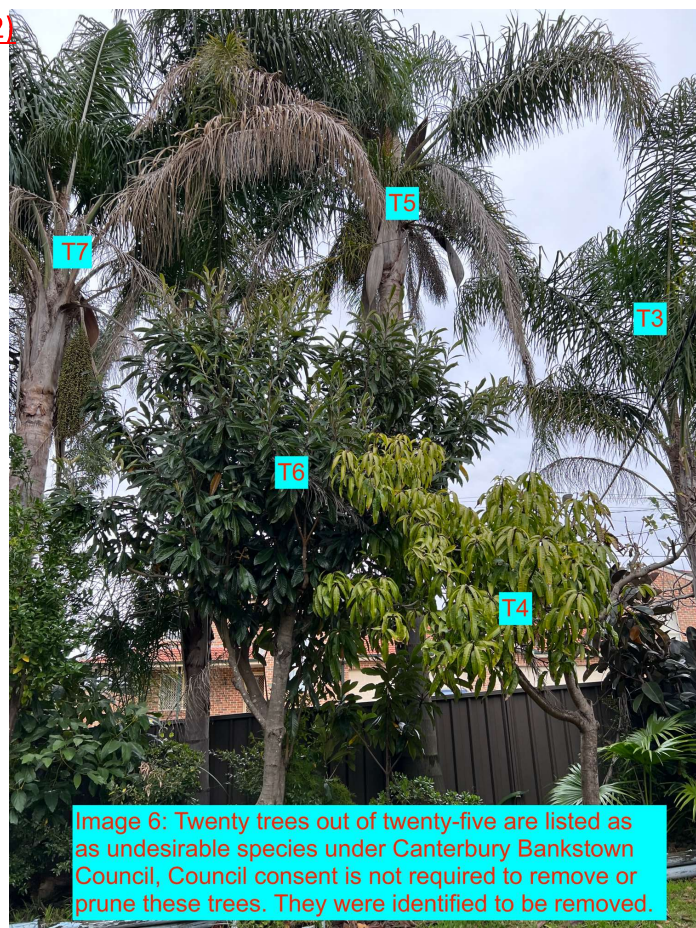
Tree no. 2

- Botanical Name: *Persea americana*
- Common Name: **Avocado**
- Location: **OS**
- DBH (cm): **13**
- DAB (m): **0.14**
- Canopy spreading: (**NS: 4**), (**EW: 2**)
- Height (m): **6**
- Canopy density (%): **80**
- Type (N, R, E, P, S, Nox): **Exotic, planted.**
- Age Class (Y/S/M/O): **SM**
- Crown class (D/C/I/S): **S**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**,
- Service/ Adjacent Structures: **Drive way**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Medium 2(b)
- TPZ (Tree Protection Zone) (R): **2m**
- SRZ (Structural Root Zone) (R): **1.5 m**
- Risk: **Low**



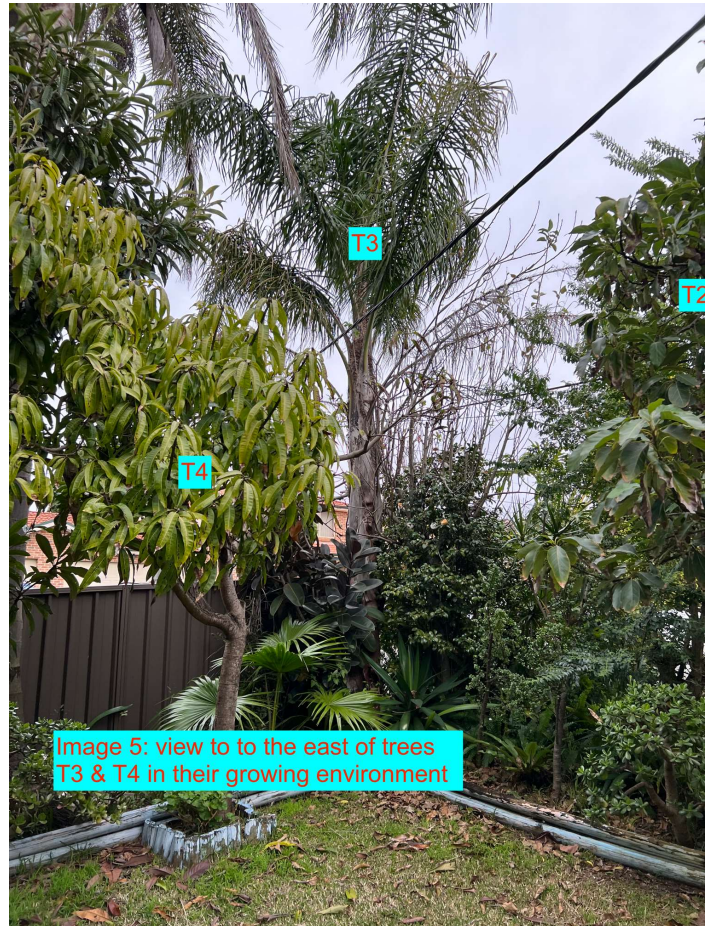
Groupe of Tree (T3, T5, T7, T8, T13, T20 & T22)

- Botanical Name: *Syagrus romanzoffiana*
- Common Name: **Cocos Palm**
- Location: **OS**
- DBH (cm) ranges: **3 to 49**
- DAB (m) ranges: **0.09-to 0.55**
- Canopy spreading ranges: (**NS: 1-4**), (**EW:1-4**)
- Height (m) ranges: **1m to 8**
- Canopy density (%) ranges: **40% to 80**
- Type (N, R, E, P, S, Nox): **E.**
- Age Class (Y/S/M/O): **Y to M**
- Crown class (D/C/I/S): **C**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Remove 4 (a)
- TPZ (Tree Protection Zone) (R) ranges: **2 to 5.8m**
- SRZ (Structural Root Zone) (R): ranges: **1.5 to 2.6m**
- Risk: **Low**



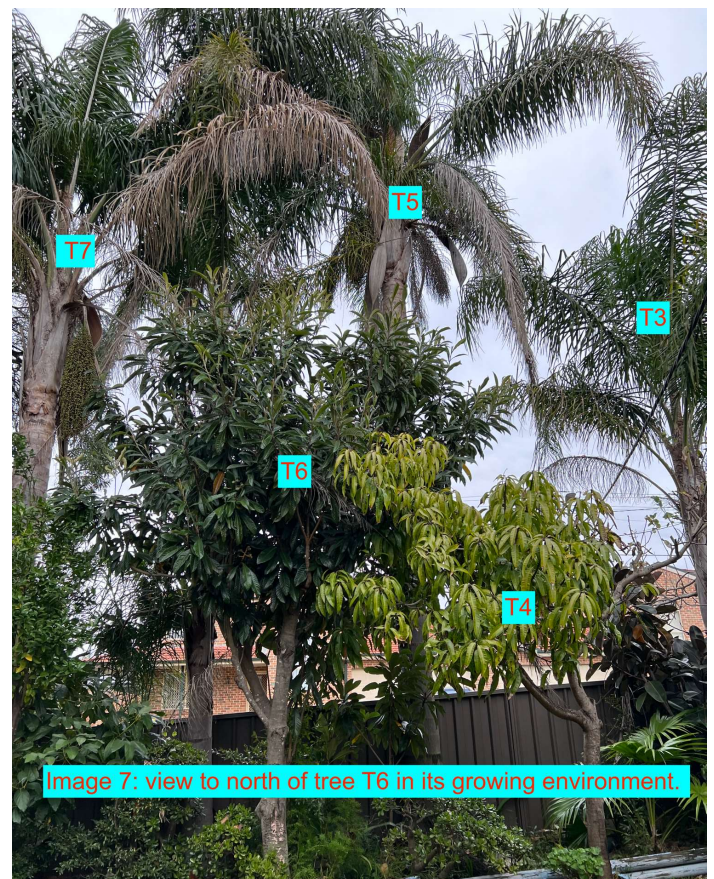
Tree no. 4

- Botanical Name: **Mangifera indica**
- Common Name: **Mango Tree**
- Location: **OS**
- DBH (cm): **13**
- DAB (m): **0.15**
- Canopy spreading: **(NS:2), (EW: 4)**
- Height (m): **2**
- Canopy density (%): **60**
- Type (N, R, E, P, S, Nox): **Native.**
- Age Class (Y/S/M/O): **Y**
- Crown class (D/C/I/S): **S**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Remove 4(a)
- TPZ (Tree Protection Zone) (R): **2m**
- SRZ (Structural Root Zone) (R): **1.5m**
- Risk: **Low**



Tree no. 6

- Botanical Name: **Eriobotrya japonica**
- Common Name: **Loquat**
- Location: **OS**
- DBH (cm): **21**
- DAB (m): **0.19**
- Canopy spreading: **(NS: 2), (EW: 2)**
- Height (m): **6**
- Canopy density (%): **80**
- Type (N, R, E, P, S, Nox): **E**
- Age Class (Y/S/M/O): **SM**
- Crown class (D/C/I/S): **S**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Remove 4(a)
- TPZ (Tree Protection Zone) (R): **2.5m**
- SRZ (Structural Root Zone) (R): **1.6m**
- Risk: **Low**



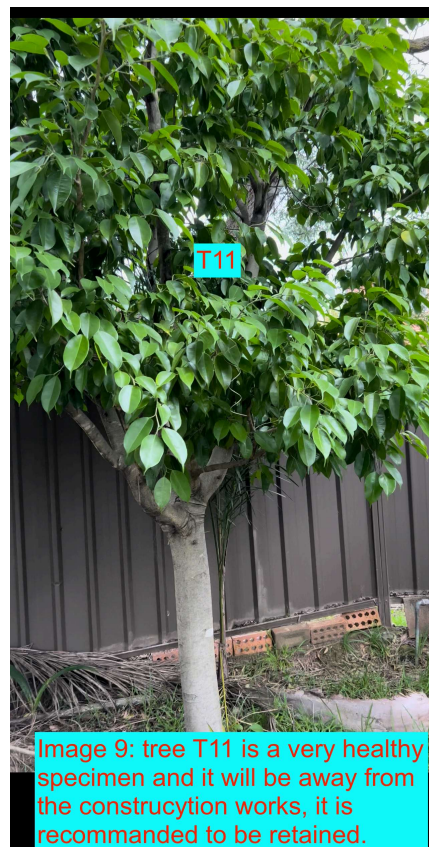
Groupe of Tree (T9, T10, T12, T14, T18, T19, & T23)



- Botanical Name: **Citrus limon.**
- Common Name: **Lemon Tree**
- Location: **OS**
- DBH (cm) **ranges: 6 to 13**
- DAB (m) **ranges: 0.08 to 0.22**
- Canopy spreading ranges: **(NS: 1-3), (EW:1-2)**
- Height (m) **ranges: 2m to 4**
- Canopy density (%) **ranges: 50% to 60**
- Type (N, R, E, P, S, Nox): **E.**
- Age Class (Y/S/M/O): **Y to M**
- Crown class (D/C/I/S): **S**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Remove 4 (a)
- TPZ (Tree Protection Zone) (R) **ranges: 2**
- SRZ (Structural Root Zone) (R): **ranges: 1.5 to 1.6m**
- **Risk: Low**

Tree no. 11

- Botanical Name: ***Ficus Benjamina***
- Common Name: **Weeping Benjamina**
- Location: **OS**
- DBH (cm): **16**
- DAB (m): **0.17**
- Canopy spreading: **(NS: 2), (EW: 2)**
- Height (m): **3**
- Canopy density (%): **80**
- Type (N, R, E, P, S, Nox): **Native.**
- Age Class (Y/S/M/O): **Y**
- Crown class (D/C/I/S): **S**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Medium 2(d)
- TPZ (Tree Protection Zone) (R): **2m**
- SRZ (Structural Root Zone) (R): **1.6m**
- **Risk: Low**



Tree no. 15

- Botanical Name: ***Ficus Elastica***
- Common Name: **Rubber Tree**
- DBH (cm): **41**
- DAB (m): **0.47**
- Canopy spreading: **(NS: 6), (EW: 4)**
- Height (m): **7**
- Canopy density (%): **80**
- Type (N, R, E, P, S, Nox): **Exotic.**
- Age Class (Y/S/M/O): **M**
- Crown class (D/C/I/S): **C**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW, L**
- Service/ Adjacent Structures: **H**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Remove 4(a)
- TPZ (Tree Protection Zone) (R): **4.9m**
- SRZ (Structural Root Zone) (R): **2.4m**
- Risk: **Low**

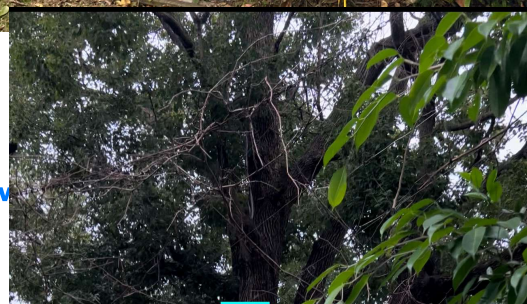


Tree no. 16

- Botanical Name: ***Gordonia axillaris***
- Common Name: **Fried Egg Plant**
- Location: **OS**
- DBH (cm): **26**
- DAB (m): **0.47**
- Canopy spreading: **(NS: 4), (EW: 2)**
- Height (m): **5**
- Canopy density (%): **60**
- Type (N, R, E, P, S, Nox): **Native.**
- Age Class (Y/S/M/O): **M**
- Crown class (D/C/I/S): **S**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **H**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Medium 2(d)
- TPZ (Tree Protection Zone) (R): **3.1m**
- SRZ (Structural Root Zone) (R): **2.4m**
- Risk: **Low**



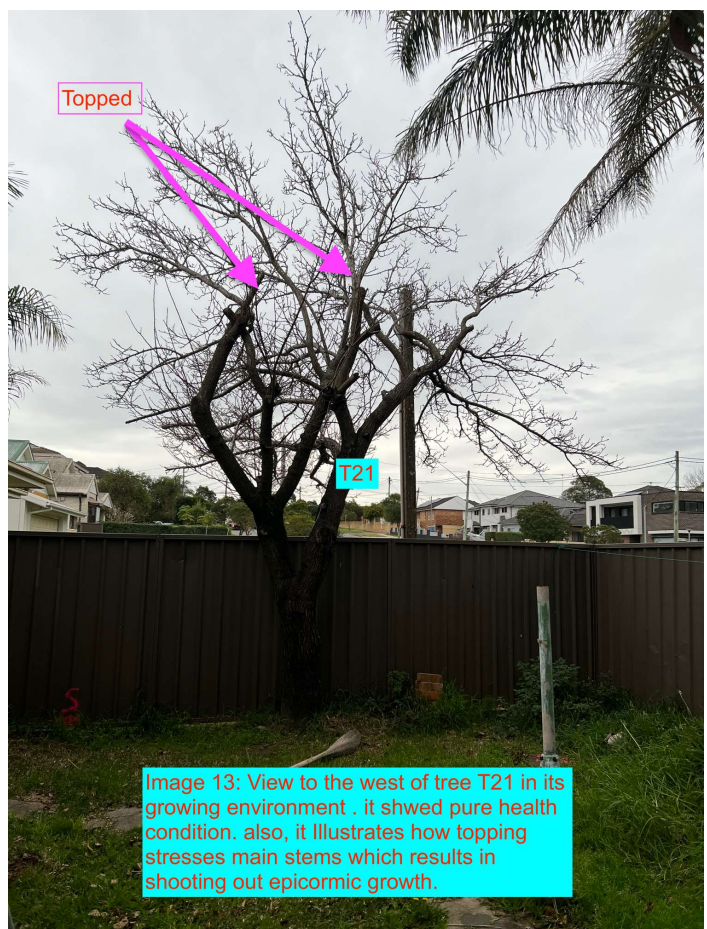
Tree no. 17



- Botanical Name: **Cinnamomum camphora**
- Common Name: **Camphor Laurel**
- DBH (cm): **110**
- DAB (m): **1.33**
- Canopy spreading: **(NS: 10), (EW: 15)**
- Height (m): **14**
- Canopy density (%): **85**
- Type (N, R, E, P, S, Nox): **Exotic.**
- Age Class (Y/S/M/O): **M**
- Crown class (D/C/I/S): **D**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F, PL**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Remove 4(a)
- TPZ (Tree Protection Zone) (R): **13.2m**
- SRZ (Structural Root Zone) (R): **3.7m**
- **Risk: Low**

Tree no. 21

- Botanical Name: ***Prunus sp.***
- Common Name: **Prunus**
- DBH (cm): **38**
- DAB (m): **0.48**
- Canopy spreading: **(NS: 6), (EW: 4)**
- Height (m): **5**
- Canopy density (%): **75**
- Type (N, R, E, P, S, Nox): **Exotic.**
- Age Class (Y/S/M/O): **M**
- Crown class (D/C/I/S): **C**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW, EP**
- Service/ Adjacent Structures: **F**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Remove 4(a)
- TPZ (Tree Protection Zone) (R): **4.5m**
- SRZ (Structural Root Zone) (R): **2.4m**
- **Risk: Low**



Tree no. 24

- Botanical Name: ***Acacia longifolia***
- Common Name: **Acacia**
- Location: **NS**
- DBH (cm): **63**
- DAB (m): **0.70**
- Canopy spreading: **(NS: 8), (EW: 12)**
- Height (m): **10**
- Canopy density (%): **80**
- Type (N, R, E, P, S, Nox): **Native.**
- Age Class (Y/S/M/O): **M**
- Crown class (D/C/I/S): **S**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW, canker**
- Service/ Adjacent Structures: **F, PL**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Medium 2(d)
- TPZ (Tree Protection Zone) (R): **7.5m**
- SRZ (Structural Root Zone) (R): **2.8m**
- Risk: **Low**



Tree no. 25

- Botanical Name: ***Corymbia citriodora***
- Common Name: **Lemon scented**
- Location: **NS**
- DBH (cm): **16**
- DAB (m): **0.43**
- Canopy spreading: **(NS: 8), (EW: 6)**
- Height (m): **16**
- Canopy density (%): **80**
- Type (N, R, E, P, S, Nox): **Native.**
- Age Class (Y/S/M/O): **M**
- Crown class (D/C/I/S): **D**
- Crown condition (0-5): **3 Good**
- Root Zone: **Gr**
- Defect: **DW**
- Service/ Adjacent Structures: **F, PL**
- Failure Potential: **1 Low**
- SULE: Safe Useful Life Expectancy rating:
Long 1(b)
- TPZ (Tree Protection Zone) (R): **5.2m**
- SRZ (Structural Root Zone) (R): **2.5m**
- Risk: **Low**

5.3 Acknowledgements:

Documents provided.

- Site plan with trees locations.
- Ground Floor Plan
- First Floor Plan
- Sediment Control Plan

6.Discussion

The site's vegetation was observed to be wooded mainly with exotic trees species.

Two trees T24 (*Acacia Longifolia*) and tree T25 (*Corymbia Citriodora*) were considered to be the most significant among the others trees on the site.

Twenty trees out of twenty-five trees as follows: One avocado (T2), seven trees Cocos Palm (T3, T5, T7, T8, T13, T20 & T22), one Mango Tree(T4), One Loquat Tree(T6), Seven Citrus trees (T9, T10, T12, T14, T18, T19, & T23), one Ficus Elastica (T15), one Camphor Laurel (T17) and one Prunus spp (T21), are listed as as undesirable species under Canterbury Bankstown Council, Council consent is not required to remove or prune these trees. They were identified to be removed. Tree (T16) *Gordonia axillaris* was identified for removal in order to allow the works to proceed.

Nevertheless, trees T1, T11, T24 & T25 are not in the position of the proposed works and will have no disturbance proposed on the Tree Protection Zones neither the Structural Roots Zone. they were identified to be retained. (Refer Appendix: I)

6.1. Tree rates:

Using tree T1 as example, the table 2 below will outline the rates of all others trees.

-Tree (T1)'s rates: - **SULE rate** for T1 is Medium 2(d); Trees that could be made suitable for retention in the medium term by remedial tree care.

-SRIV rate for T1 is: "MGVF -9" Retention potential -Medium - Potential for longer with improved growing conditions.

-Landscape Significance rating is Moderate (4)

Based on the Tree Retention Value Matrix Table 1(Safe & Useful Life Expectancy Versus Landscape Significance Rating) tree T1 has **Moderate Retention value**

- 6.1 Tree rate: (Refer Table 1, Appendix B, Appendix C)					
Tree #/Botanical Name	SULE Rate (appendix B)	SRIV Rate (Appendix C)	Landscape Significance Rating (refer Table 1)	Tree Retention Value Matrix (Refer Table 1)	Proposed status /Recommendation
(T1) <i>Cupressus sempervirens</i> Mediterranean Cypress	Medium (2d)	MGVF-9	Moderate	Moderate	Retain/with tree management
(T2) <i>Persea americana</i> Avocado	Medium (2b)	MGVF-9	Low	Low	Remove/replacement
(T3, T5, T7, T8, T13, T20 & T22) <i>Syagrus romanzoffiana</i> (Cocos Palm)	Remove 4(a)	MGVF-9	Low	Low	Remove/replacement
(T4) <i>Mangifera indica</i> (Mango Tree)	Remove 4(a)	YGVF-8	Low	Low	Remove/replacement
(T6) <i>Eriobotrya japonica</i> Loquat Tree	Remove 4(a)	SMGVF-9	Low	Low	Remove/replacement
(T9, T10, T12, T14, T18, T19, & T23) <i>Citrus limon.</i> Lemon Tree	Remove 4(a)	Y/MGVF-9	Low	Low	Remove/replacement
(T11) <i>Ficus Benjamina</i> Weeping Benjamina	Medium 2(d)	YGVF-8	Moderate	Moderate	Retain/with tree management
(T15) <i>Ficus elastica</i> Rubber Tree	Remove 4(a)	MGVF-9	Low	Low	Remove/replacement
(T16) <i>Gordonia axillaris</i> Fried Egg Plant	Medium 2(b)	MLVP-2	Low	Low	Remove/ within the foot print replacement
(T17) <i>Cinnamomum camphora</i> Camphor Laurel	Remove 4(a)	MGVF-9	Low	Low	Remove/replacement
(T21) <i>Prunus spp.</i>	Remove 4(a)	MLVP-2	Low	Low	Remove/replacement
(T24) <i>Acacia Longifolia</i> Acacia	Medium 2(d)	MGVF-9	High	High	Retain/with tree management
(T25) <i>Corymbia citriodora</i>	Long (1b)	MGVF-9	Significant	High	Retain/with tree management

6.2. Risk Categorization. (Refer Table 3. & Appendix D)

A tree risk assessment has been completed based on the Best Management Practice for Tree Risk Assessment, refer to (Appendix D).

The areas within the fall zone of the trees (client's house, back yard), appeared to be low level use. The areas are used intermittently by people, but the structures are always in the fall zone. The consequence of a tree part failing, will either be damage to the surrounding hardscapes.

- Using the likelihood matrix as shown in (Appendix D); The likelihood of failure within the next year can be categorized as **Improbable** for trees T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T16, T17, T18, T19, T20, T21, T22, T23, T24 & T25.) (Refer table 3). The likelihood of impacting a target can be categorized as **Low**. (Result: **Unlikely**) (**Appendix D**)

The Risk rating Matrix as shown in (Appendix D); The likelihood of failure & impact within the next year can be categorized as Unlikely for mentioned trees. The Consequence of failure causing a significant consequence for structure and severe consequence for people. (**Result: Low**) (Refer Table:3).

Based on the risk rating matrix the subjected trees can be categorized under Low Risk (Refer Appendix D)

7. Conclusion/ Recommendations/ Management:

The assessed trees in this report are protected under Canterbury Bankstown Council Tree Regulation. Regardless of the development's impact to the trees the majority of the trees on the site are listed as undesirable species and Council consent is not required to remove or prune these trees. They were identified to be removed.

I- The results and recommendation from site investigations are as follows:

- a- Total of four trees; Two (2) trees on site and two trees (2) on council verge are identified to be retained.
- b- However, the rest of the trees (21 trees) are identified to be removed. as they listed as undesirable species under Canterbury Bankstown Council.
- c- Removal of tree (T17) Camphor Laurel has been granted from the council independent of the proposed development (Refer Appendix R)

II- Retained trees shall be protected throughout the duration of works in accordance with section4: "Tree Protection Measures" in accordance with AS 4970-2009;

These specifications are for the trees are identified to be retained on the site.

a- Design of the development

The design of the development should take into consideration the importance of the trees' values, and accept the constraints and benefits that the existing generates.

The design also should commensurate with the concept of sustainability of the retainable trees, and should be aware of the importance of the underground services without any infringement on the TPZ area, especially for the high retention value trees.

b- Tree retention

The trees (**T1, T11, T24 & T25**) should be retained for future growth.

c- Canopy and root pruning

Any pruning recommended in this report is to be to the Australian Standard® AS4373 'Pruning of Amenity Trees', Amenity Tree Industry "Code of Practice 1998 and conducted in accordance with the NSW Work Cover Authority Code of Practice for Tree Work 2007.

All pruning or removal works are to be in accordance with the appropriate Tree Management Policy where applicable, or Tree Management Order (TMO), or Tree Preservation Order (TPO) and applicable consent conditions.

All works with trees pruning should be carried out with a AQF3 Arborist, under the supervision of The project Arborist. All pruning work should be in accordance with AS 4373-2007 Pruning of amenity trees. (May be used to remove identified branches that are causing a specific problem. These branches shall be specified at the time of assessment), under clause 7.2.4. Selective Pruning (S), the NSW works cover Code of practice for the Amenity Tree Industry 1998. and conducted in accordance with the NSW Work Cover Authority Code of Practice for Tree Work 2007.

Prior to commence any pruning work, a written consent to prune should be required under councils TPO. Also project arborist shall give advices prior to the commencement of any mechanical works (cranes, erection of scaffolding and other). Regarding roots pruning, also should carried out under the guidance of the Project Arborist. Non-destructive excavation techniques shall be used surely after determining the extent and the diameter of roots that can be pruned by the Project Arborist. After using clean cut pruning (sterile tools), roots which are exposed to roots pruning should have surrounded by drip irrigation system in order to ensure that they receive an adequate supply of water. (Work are to be in accordance with appropriate Tree Management Plan/Applicable consent condition"

III- Tree protection Plan/Tree management:

Tree protection measures:

Prior commencing any site works, the tree protection measures should be implemented, and should be remain in place for the duration of the development.

a- Tree Protection Zones

Tree protection zones for trees designated for retention should be marked out to the dimensions given in the "*Summary of results*". Installation of drip irrigation and thick layer of organic mulch (50 — 75 mm) within the TPZ area should be applied under the supervision of Project Arborist.

Structures are used to identify and isolate the TPZ (refer to Section3 of (AS 4970-2009) these measures are identified in the "*Summary of results*."

According to the AS 4970-2009 section 4; any activities that may cause damage to the tree or its root system are prohibited within the TPZ area (such as excavation, demolition or cultivation using machinery, stockpiling of equipment, changes soil level, installation of site sheds, Erection scaffolding, access tracks for vehicles and disposal of building waste or materials).

b- Protective fencing

According to Section3 of (AS 4970-2009) 'fencing should be installed before any machinery or materials are brought into the site and before the commencement of works including demolition, and specifies applicable fencing requirements' (p. 12). It should be 1.8 m high and chain wire shall be installed around the perimeter of each TPZ and fixed in place for the duration of the development. Warning signs (Signage-Tree Protection Zone, No Entry) shall be attached to the outside of protective fencing. (Appendix1). Also shade cloth must be attached to protective fencing to prevent run off or building materials from entering the tree protection zone.

c- Trunk, branch & ground protection

To protect a trunk or branch from any mechanical damage, a two-meter lengths hardwood timber should be installed over a layer of padded fabric wrapped around the trunk.

(Appendix 2) The timber specifications should be 100 x 50 mm in cross section at 100 - 150mm around the trunk and any first order branches that may be at risk from construction activities. The timber shall be secured together with galvanized wire. The timbers shall be strapped around the trunk and first order branches of the tree and not fixed to the tree in any way that may cause mechanical damage (nailed or screwed)

Steel plates or rumble boards sitting on a 100mm thick layer of mulch with geo-textile fabric beneath in order to protect the ground from any compaction damage.

d- Demolition of structures

Any demolition works inside or adjacent the TPZ should be carried out under the supervision of the Project Arborist, Vertical structures shall be demolished in a direction away from the TPZ. If there is any work has scheduled to be demolished within the TPZ shall be done before the installation of protective fences.

e- Excavation

It is preferred to prevent any excavation within the TPZ, in case there is excavation works, a non -destructive techniques should be followed. Any works shall be carried out under the supervision of the Project Arborist. If large woody root are detected, advice must be sought from the project Arborist regarding removal of the roots or whether an alternative construction method will be required (beam footing, suspended slabs etc.)

f- Scaffolding

If scaffolding installation within the TPZ area needs any pruning or tying branches back, Project Arborist shall be the supervisor on the work. The project Arborist shall nominate the size and location of any branches requiring pruning. The soil surface under scaffolding should be protected from any compaction damage by boarding laid on geo-textile fabric. Also where access is required boards shall be placed on the soil surface on a 50 - 100 mm layer of mulch with geo-textile fabric beneath to prevent compaction and contamination of the soil. Tree protection fencing shall be installed along the boardwalk to prevent entry into TPZ.

g- Installation of underground services

If installation of services within the TPZ is necessary, excavation shall be carried out by directional drilling beneath the root-zone of the tree. It is preferable that all underground services to be designed out side the TPZ area. If installation of services within the TPZ is absolutely necessary, excavation shall be carried out by directional drilling beneath the root-zone of the tree. Boring pits for the drilling shall be located out side the TPZ at a distance specified by the project Arborist. The drilling bore shall be at a minimum depth of 600 mm.

h- Tree damage/decline

If any tree suffers damage or shows signs of decline in health/vigour, advice must be sought from the project Arborist in order to provide recommendation for the implementation of remedial action. Any action shall be implemented as soon as practicable and signed by the project Arborist.

i- Sensitive Construction

Where works are unavoidable within the Tree Protection Zone (TPZ) and or Structural Root Zone (SRZ) of trees to be retained, the following should be considered, to minimise the direct and indirect impacts to tree roots (soil compaction,)

Footings systems such as pier and beam, suspended slab have the potential to reduce the impact on trees by retaining sections of soil and roots between the piers.

IV- **Hold points, inspection and certification**

According to AS4970-2009 section 5; and Prior to the commencement of any demolition, excavation construction works on site, a qualified Arborist should be engaged to oversee the measures for the protection of existing trees. to ensure that the trees are protected during construction period, a copy of this report must be available onsite all times

holding points have been specified in the schedule of works below. It is the responsibility of the principal contractor to complete each of the tasks.

Once each stage is reached, the work will be inspected and certified by the project arborist and the next stage may commence. Alterations to this schedule may be required due to necessity, however, this shall be through consultation with the project arborist only.

Table IV: Schedule and hold points The Site Arborist shall monitor the trees to be retained and supervise the tree protection measures.

Inspection/ Hold Point	Inspection personnel
Identification of retained trees and installation of tree protection zone including protection fencing, silt fencing and appropriate signage.	Site Arborist to undertake with Site Supervisor.
Modification of the Tree Protection Zone if or as required	Site Arborist to undertake with Site Supervisor.
Works within the Tree Protection Zone if or as required.	Site Arborist to undertake with Site Supervisor.
Completion of the construction works (Post Construction) and final inspection/sign off.	Site Arborist to undertake with Site Supervisor.

Table 3: Risk Categorization

Table 3: Risk Categorization (one-year time frame) (Refer Appendix D)																						
Tree Number	Target (Target number or description)	Tree part	Condition(s) of concerns	Likelihood								Risk rating (from Matrix 2)										
				Failure				Impact					Failure & Impact (from Matrix 1)									
				Improbable	Possible	Probable	Imminent	Very low	Low	Medium	High		Unlikely	Somewhat	Likely	Very Likely						
Trees (T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T19, T20, T21, T22, T23, T24 & T25).	Tenant and his family, Client's (building, front-yard driveway and back yard) pedestrian at Burley Road's footpath	Crown (hanging branches)	Large-dead-wood over the back yard, fence	✓				✓					✓									
		Trunk	N/A	✓				✓					✓									

8. References:

- Australian Standards 2009, AS4373-2007 *Pruning of Amenity Trees*.
GPO Box 476 Sydney, NSW 2001, Australia.
- Australian Standards 2009, AS4970-2009 *Protection of Trees on Development Sites*,
GPO Box 476 Sydney, NSW 2001, Australia.
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Champaign, Illinois: International society of Arboriculture 2017 Print, USA.
- <https://www.cbcity.nsw.gov.au/resident/trees-garden-home/pruning-removing-trees/tree-preservation-order>
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- http://www.treetec.net.au/TPZ_SRZ_DBH_calculator.php
<https://maps.six.nsw.gov>
[http://www.iaca.org.au/home/index.php/publications/73-sustainable-retention-index-value-srivau\(SRIV\)](http://www.iaca.org.au/home/index.php/publications/73-sustainable-retention-index-value-srivau(SRIV))

9. Disclaimer

- Limitations on the use of this report

This report is to be utilised in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or a copy) is referenced in, and directly attached to that submission, report or presentation.

Any further consultation regarding this report and/or the subject tree may incur additional fees, unless prior arrangements made and/or payments received

- Assumptions

Care has been taken to obtain information from reliable resources. All data has been verified insofar as possible; however NOUR_Co, can neither guarantee nor be responsible for the accuracy of information provided by others.

Unless stated otherwise:

Information contained in this report covers only the tree that was examined and reflects the condition of that tree at the time of inspection: and the inspection was limited to visual examination of the subject tree without dissection, excavation, probing, coring, or climbing. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject tree will not worsen in the future.

10. Qualification:

- Diploma of Arboriculture (AQF Level 5) Padstow TAFE, Padstow, NSW 2211.
- Cert IV in Building & Construction Granville TAFE, Granville NSW 2142
- Cert III Horticulture. Padstow TAFE, Padstow, NSW 2211
- Accredited member of Consulting Arboriculturist of Arboriculture Australia under # 3702
- Accredited member of International Society of Arboriculture ISA under number # 258694.
- Engineering Technologist. Engineers Australia Sydney Division, under # 2428887, June 2006.
- Graduate Diploma in Adult Literacy and Numeracy Teaching, University of Technology, Sydney (UTS), Broadway, Ultimo, NSW.2012-2014
- Diploma of Project Management, MCI (Management Consultancy International Pty Ltd), NSW 2012.
- Master degree of Agriculture engineering from overseas (Lebanese university of Beirut 1990-1995.



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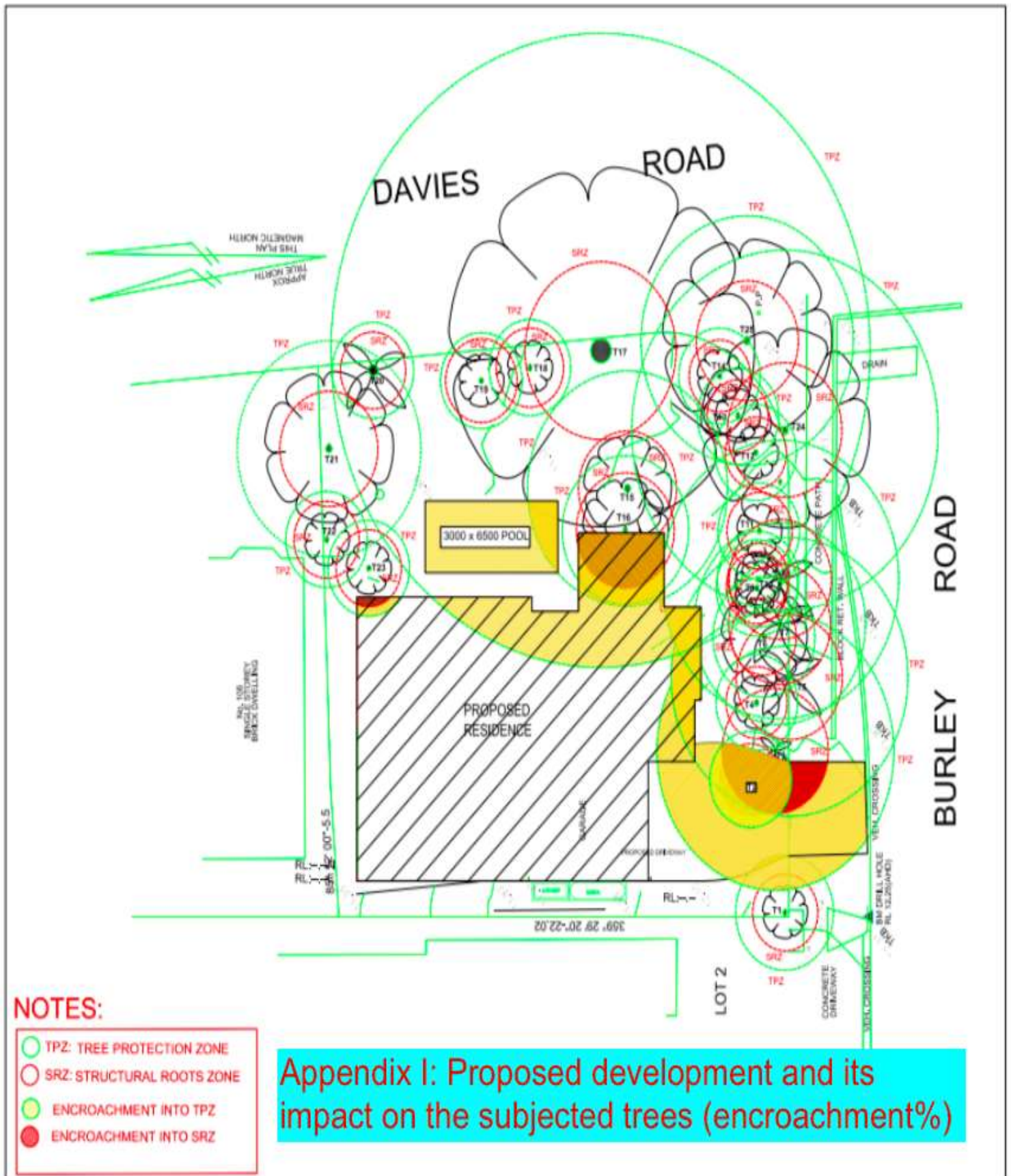
Registered Consulting Member



Arboriculture Australia

Date: 10/08/2022





Appendix I: Proposed development and its impact on the subjected trees (encroachment%)

11. Tables:

11.1 Table1 (tree retention Value Matrix) (page 6)

11.2 Table3 Tree Risk Categorization (page--)

11.3 Table IV: Schedule and hold points

12 Appendices:

Appendix A (Tree Schedule Definition)

Appendix B: (SULE rating)

Appendix C: (SRIV)

Appendix D (The ISA methodology uses two 4x4 matrices to produce a qualitative risk rating)

Appendix R: (Council approval for tree removal; Camphor Laurel)

Likelihood of Failure	Likelihood of Impacting Target			
	Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely
Matrix 1. Likelihood matrix (Source: International Society of Arboriculture)				

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low
Matrix 2. Risk Rating matrix (Source: International Society of Arboriculture)				

Appendix D

The Tree Risk Categorization in this case is a qualitative risk assessment used by qualified tree assessors in combination with a matrix to assign risk. The assessor considers possible targets, the target zone, occupancy rates, site specific factors, Tree species, noted defects and environmental factors within a specified period.

The tree assessor uses this information to Categorize risk for the Likelihood of failure, combined with the Likelihood of impacting a target. These two categories make up the first table (table 1) in the Tree Risk Matrix. The second table assesses the Tree Risk rating by combining the Likelihood of failure and impact in table 1 with the Consequences of the branch or tree failing, refer to table 2. The end result is a risk rating of low, moderate, high or severe.

-The Likelihood of failure options: **Improbable**- the tree or branch is not likely to fail in normal weather conditions within the specified time period.

Possible- Failure of the tree or branch could occur in normal weather conditions within the specified time period.

Probable- the tree or branch may be expected to fail in normal weather conditions within the specified time period.

Imminent- the tree or branch failure has started and is likely to occur in the near future, even without significant wind or load. This is a rare occurrence for the risk assessor to encounter and immediate action must be taken to prevent harm to people or property.

-The Likelihood of impacting a target option: **Very low**- The chance of the failed tree or branch hitting a target is remote. This would be the case in a site with no targets or a rarely used site or a site that is protected by from impact by other structures.

Low- It is not likely that the failed tree or branch will impact the target. This would be the case in a site which is fully exposed to the tree but is used occasionally, a frequently used area that is partially exposed to the assessed tree.

Medium- The failed tree or branch may or may not hit the target with nearly equal likelihood. This would be the case in a frequently used area that is fully exposed on one side to the assessed tree, or a constantly occupied area that is partially protected for the assessed tree.

High- The failed tree or branch will most likely impact the target. This would be the case when a fixed target is fully exposed to the assessed tree or near a high use road or walkway with an adjacent street tree.

-Categorizing Consequences of failure

Negligible- consequences are those that involve low value property damage or disruption that can be replaced or repaired, and does not involve personal injury.

Minor- consequences are those that involve low – moderate property damage, disruptions in traffic or disruption in communications or minor personal injury.

Significant- consequences that involve property damage of a moderate to high value, considerable disruption or personal injury.

Severe- consequences that could involve serious personal injury or death, damage to high value property or disruption of important activities.

-The four levels of risk as used in the table are defined below and should be used in making recommendations.

Extreme- The extreme risk category applies in situations in which failure is *imminent* and there is a high likelihood of impacting the target with severe consequences. The tree risk

assessor should recommend mitigation measures to be taken as soon as possible. This may involve immediately restricting the target zone.

High- High risk situations are those for which consequences are *significant* and likelihood is *very likely* or *likely* or consequences are *severe* and likelihood is *likely*. This combination of likelihood and consequences indicates that the tree risk assessor should recommend mitigation measures. The decision for mitigation and timing of treatment depends upon the risk tolerance of the tree owner or risk manager.

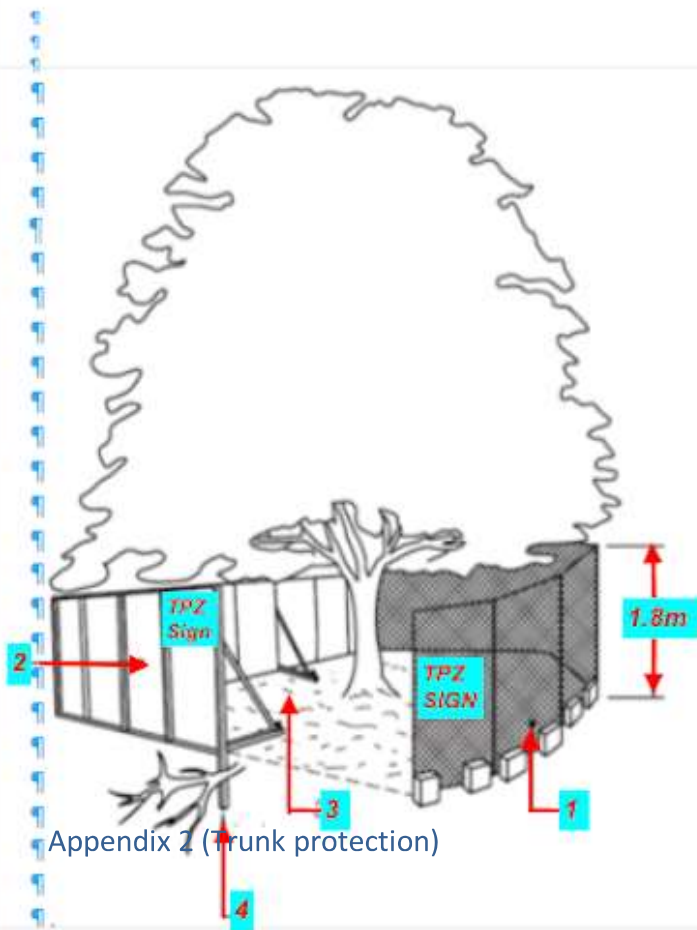
Moderate- Moderate risk situations are those in which consequences are *minor* and likelihood is *very likely* or *likely* or likelihood is somewhat likely and consequences are *significant* or *severe*. The tree risk assessor should recommend mitigation and or retaining the tree with monitoring. The decision for mitigation and timing depends upon the risk tolerance of the tree owner or manager.

Low- The low risk category applies when consequences are *negligible* and likelihood is *unlikely* or consequences are *minor* and likelihood is *somewhat likely*. Some trees with this level of risk may benefit from mitigation or maintenance measures, but immediate action is not usually required. Tree risk assessors may recommend retaining and monitoring these trees as well as mitigation that does not include tree removal.

Appendix 1 (Protective fencing & Signage) (Source AS4970-2009 clause 4.3 p.16)

LEGEND:

- 1.→ Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
- 2.→ Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
- 3.→ Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
- 4.→ Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.



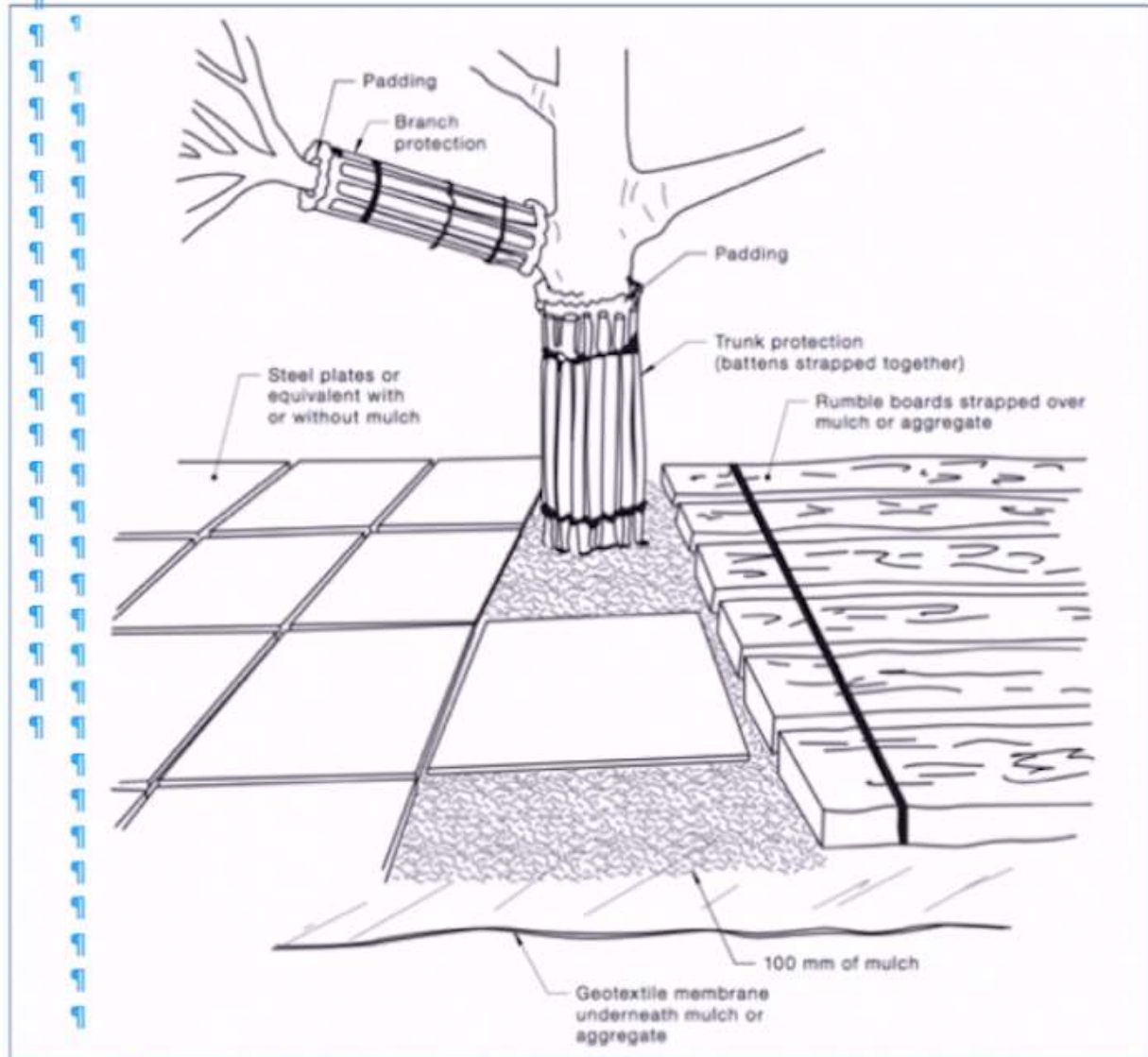
Signage example:



Appendix 2 (Trunk protection)

Appendix 2: Trunk, Branch & Ground Protection

- (Source AS4970-2009, Clause 4.5.2 p.17)
- → Where fencing cannot be installed, trunk/branches of exposed trees shall be protected by the placement of lengths of 50 x 100mm timbers, spaced vertically (3.6m), at 150mm centres and secured by 2mm wire at 300mm wide spacing over suitable protective padding material e.g. Jute-Matting.
- → The trunk/branch/ground protection shall be maintained intact until the completion of all work on site.



- → NOTES: 1. For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
- → 2. → Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

Approval for tree T17 to be removed has issued independent to the prop



18 October 2021

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**CANTERBURY BANKSTOWN CITY COUNCIL
DEVELOPMENT CONTROL PLAN PART B11
TREE MANAGEMENT ORDER PERMIT**

APPLICANT: Mr Erceg & Ms Suzy Sarmast
SITUATION OF PREMISES: 2 Burley Road, Padstow
REFERENCE NUMBER: 638143

Dear Mr Erceg & Ms Sarmast,

I refer to your application receipted 21 September 2021, regarding tree located on **2 Burley Road, Padstow**.

Following an inspection on 13 October 2021, consent has been issued for the following works:-

Removal:-

Tree Species	Location
1x <i>Cinnamomum camphora</i> (camphor tree)	Rear yard

All tree removal works must comply with the Amenity Tree Industry - Code of Practice, 1998 WorkCover, (NSW).

This work is to be carried out by a qualified arborist, minimum level training AQF Level 3 in Arboriculture or equivalent.

Removal is subject to the replacement planting of 3 (three) trees (75 litre plant stock) known to attain a minimum height of 8 metres at maturity in a more convenient location on the property. The tree species are not to include any of the exempted species listed under clause 2.4 of Bankstown Development Control Plan 2015 Part B11 - Tree Management Order. The trees are to be planted no closer than 3.5 metres from any dwelling on the property.

This assessment is based on the conditions evident at the time of inspection. You are also advised that **this permit is valid for a period of twelve (12) months**.

Please Note: It is essential that, this permit is retained on the site and shall be made available at the request of a Council Officer.

Appendix A: Tree Schedule Definitions (Matheny & Clark, 1998) modified.						
Location:		NS: Nature Strip		OS: On site		AP: Adjacent property
DBH:			Diameter at breast height (1.4m)			
Canopy:			North/south X East/west			
Type:	N: Native	R: Remnant	E: Endemic	P: Planted	S: Seeded	NW: Noxious weed
Age class:	Y: young	S: semi-mature- <20%of life expectancy		M: Mature- 20-80% Of life expectancy		O: over mature->80% of life expectancy
Crown class:		D: Dominant crown extends above general canopy; not restricted by other trees. C: Co-dominant crown forms the bulk of the general canopy but crowded by other trees. I: Intermediate crown extends into dominant/ co dominant canopy but quite crowded on all sides. S: Suppressed crown development restricted from overgrowing trees.				
Crown condition Overall vigour and vitality		0: Dead 1: Severe decline (<20% canopy density; major dead wood) 2: Declining (20-60% canopy density; twig and branch dieback) 3: Average / low vigour (60-90% canopy density; twig dieback) 4: Good (90-100% canopy density; little or no dieback or other problems) 5: Excellent (100% canopy density; no deadwood or other problems)				
Root Zone	Cmp: Compaction Ga: Tree in garden bed K: Kerb close to tree LP: Lifting Pavement D: Damaged / wounded roots Gi: Girdled roots L+: Raised soil level L-: Lowered soil level ER: Exposed roots Gr: Grass M: Mulched Pa: Paving etc					
Wildlife:	S: Scats		M: Markings		N: Nests	
Services/adjacent:	H: House		G: Garage	F: Fence	PL: Power lines	
Defects:	A: Ants BW: Basal Wound DL: Decline F: Fruiting bodies K: Kino MA: Multiple Attachments S: Sap T: Termites TW: Trunk Wound B: Borers C: Cavity DW: Deadwood HW: Hardware (nails, wire) L: Lean MT: Multi trunks SB: Splits/ Cracks TH: Themasticorid W: Wound BI: Basal Inclusion D: Decay EP: Epicormic Growth I :Inclusions LP: Lopped PF: Previous failures SCI: Scaffold Inclusion TI: Trunk Inclusion					
Failure Potential:	Identifies the most likely failure and rates the likelihood that the structural defect(s) will result in failure within the inspection period. 1: Low – defects are minor (eg dieback of twigs, small wounds with good wound wood development). 2: Medium - defects are present and obvious (eg cavity encompassing 10-25% of the circumference of the trunk) 3: High – numerous and or significant defects (eg cavity encompassing 30-50% of the circumference of the trunk, major bark inclusions). 4: Severe – defects are very severe (eg. heart rot fruiting bodies, cavity encompassing more than 50% of the tree					
Appendix A (Tree Schedule Definition)						

Appendix B (Barrell, J. 1996)

SULE Category	Description
Long	Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.
1a	Structurally sound trees located in positions that can accommodate for future growth
1b	Trees that could be made suitable for retention in the long term by remedial tree care.
1c	Trees of special significance that would warrant extraordinary efforts to secure their long term retention.
Medium	Trees that appeared to be retainable at the time of assessment for 15-40 years with an acceptable level of risk.
2a	Trees that may only live for 15-40 years
2b	Trees that could live for more than 40 years but may be removed for safety or nuisance reasons
2c	Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide for new planting.
2d	Trees that could be made suitable for retention in the medium term by remedial tree care.
Short	Trees that appeared to be retainable at the time of assessment for 5-15 years with an acceptable level of risk.
3a	Trees that may only live for another 5-15 years
3b	Trees that could live for more than 15 years but may be removed for safety or nuisance reasons.
3c	Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide for a new planting.
3d	Trees that require substantial remedial tree care and are only suitable for retention in the short term.
Remove	Trees that should be removed within the next five years.
4a	Dead, dying, suppressed or declining trees.
4b	Dangerous trees because of instability or loss of adjacent trees
4c	Dangerous trees because of structural defects
4d	Damaged trees not safe to retain.
4e	Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide for a new planting.
4f	Trees that are damaging or may cause damage to existing structures within 5 years.
Small	Small, or young trees that can be reliably moved or replaced.
5a	Small trees less than 5m in height.
5b	Young trees less than 15 years old but over 5m in height.

Appendix B (SULE)**Appendix C (SRIV)****Sustainable Retention Index Value (SRIV)©**

SRIV© provides a dual method of objectively rating the viability of urban trees for development sites based on general tree and landscape assessment criteria, and a numeric index for each tree as a tree management tool. SRIV© is designed as an objective system based on set criteria to replace previous subjective systems. SRIV© is based on the principle of sustaining trees in the urban environment including remnant forest trees, but does not cover social aspects of trees, or hedges. Dead trees and environmental or noxious weed species are not considered as removal of these trees is generally encouraged.

SRIV© benefits the arboriculturist by defining each variable providing certainty and clarity to their meaning and by issuing a definite index value to each category. This enables the professional manager of urban trees with an assumed knowledge of the taxa and its growing environment to consider the tree *in situ* and is based on the physical attributes of the tree and its response to its environment. SRIV© considers its *age class*, *condition class*, *vigour class* and its sustainable retention with regard to the safety of people or damage to property. The ability to retain the tree with remedial work, or beneficial modifications to its growing environment or options for removal and replacement.

To promote tree retention, remediation works to improve the growing environment should always be attempted where ever possible. Successive assessments may document improvements in a tree where it responded favorably to remediation, or where conditions in its growing environment improved naturally, or conversely a decline, or a static rating if the tree deteriorated, or no change observed, respectively.

SRIV© is designed to achieve a quick and readily understood value for a tree but does not replace the need for a comprehensive assessment of a tree and as a tool is intended to be used in conjunction with or complementary to a detailed tree assessment. As a management tool the ongoing SRIV© assessment of a tree may indicate its response to remedial works or other modifications to its growing environment over time.

SRIV© is a realistic approach to managing trees but recognises from the outset that as tree taxa are a vast and varied array of organisms, not all will fit easily into the system, e.g. tree species with a lifespan shorter than twenty years, most *Acacia species*. Field trials have revealed that it is suitable for the majority of trees. An example of a SRIV© for a Mature tree with Good Vigour and Poor Condition is an assessment value of MGVP – 6, with 6 as the index value, see page 4. The matrix provides indices as a tree management decision making tool and the Age / Vigour / Condition classes as a tree assessment system.

The Glossary details the definitions for terms to be used with the SRIV© system and are taken from the Institute of Australian Consulting Arboriculturists (IACA)© Dictionary for Managing Trees in Urban Environments¹.

¹ Draper BD and Richards PA 2009, *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia

Matrix - Sustainable Retention Index Value (SRIV)©

Use of this document and referencing

The Sustainable Retention Index Value (SRIV)© is free to use, but only in its entirety and must be cited as follows: IACA, 2010, *Sustainable Retention Index Value (SRIV)*, Version 4, A visual method of objectively rating the viability of urban trees for development sites and management, based on general tree and landscape assessment criteria, Institute of Australian Consulting Arboriculturists, Australia, 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.

Appendix C



Appendix C

Sustainable Retention Index Value (SRIV)© 2010

Version 4

Matrix - Sustainable Retention Index Value (SRIV)©

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12- GLOSSARY

Definitions for all terminology used in this report are taken from *AS4373- Pruning of amenity trees*, 2007, *AS4970- Protection of Trees on Development Sites*, 2009 and the *International Society of Arboriculture's Glossary of Arboricultural Terms*