



# Arboricultural Impact Assessment

171 Weston Street, 2, 4 & 6 Hinemoa St, Panania

Proposed Residential Development

Prepared for Homes NSW

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Prepared 29 August 2024

by  
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## Executive Summary

This Arboricultural Impact Assessment (AIA) report has been prepared for Homes NSW, to assist in the assessment of a Development Application to be submitted to Canterbury-Bankstown Council in relation to a residential development at 171 Weston 2, 4 and 6 Hinemoa Street, Panania.

The proposed development consists of demolition, construction (a five storey residential unit building with basement carparking), installation of underground services, installation of overhead services, landscaping, amalgamation (from four lots to one lot) and infrastructure installation (electricity substation) as shown on the plans by Morson Group.

This report assesses twenty-two (22) trees within and adjacent to the site, including one (1) in a neighbouring property and seven (7) in the Council verge. Details of the species, dimensions, health, and condition of the assessed trees are contained in the **Tree Survey Information Table** (page 15).

In the context of the proposed development, twelve (12) trees on site will be removed, one (1) tree in the nature strip will be removed, two (2) trees on site will be retained and protected, and seven (7) trees adjacent the site will be retained and protected as shown on the **Tree Protection Plan** (page 13) and specified in the **Recommendations** (page 8).

The following are the outcomes of the arboricultural impact assessment regarding the trees in the context of the currently proposed works.

### Impact Summary

	Tree No.'s	Trees Retained	Trees Removed
<b>Trees within the proposed development footprint</b>	1*, 3*, 4*, 14*, 15*, 16, 17 (7)	-	1*, 3*, 4*, 14*, 15*, 16, 17 (7)
<b>Trees with major encroachments</b>	2*, 7, 8*, 9*, 18 (5)	7, 18 (2)	2*, 8*, 9* (3)
<b>Trees with minor encroachments</b>	5, 6, 10* (3)	5, 6 (2)	10* (1)
<b>Trees with no encroachments</b>	11, 12*, 13*, 19, 20, 21, 22 (7)	11, 19, 20, 21, 22 (5)	12*, 13* (2)
	22 trees in total	9 trees retained	13 trees removed (11 exempt)

\* Exempt weed species

Consider transplanting Tree 16 to a suitable position on site.

The following are recommended to manage and offset tree impacts, and should be allowed for in tendering, estimating, and contract documents.

- Engage a Project Arborist (AQF Level 5 Arboriculture qualified) prior to commencement.
- Install tree protection and utilise tree sensitive construction measures as detailed in the Recommendations and Tree Protection Plan.
- Install at least ten (10) medium and two (2) large replacement trees from minimum 100L containers to offset the loss of tree canopy on site.
- Install one (1) native tree in a suitable public location, as specified by Council.

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# 1. Introduction

## 1.1 Summary

This Arboricultural Impact Assessment (AIA) report has been prepared for Homes NSW, to assist in the assessment of a Development Application to be submitted to Canterbury-Bankstown Council in relation to proposed residential development works at 171 Weston, 2, 4 and 6 Hinemoa Street, Panania. The report is prepared in accordance with Australian Standard *AS4970-2009 – Protection of trees on development sites*.

## 1.2 Purpose

The purpose of this report is to assess the potential impacts of the proposed works on the trees on and adjacent the site, and detail tree protection measures required for retained trees including tree sensitive design and construction measures.

## 1.3 The Site

The site is four residential (R4 High Density Residential) lots located on the southern side of Weston St at the corner of Hinemoa St, and is surrounded by low density residential properties, and railway line to the north. The property contains four detached brick dwellings with associated driveways, gardens, fences and ancillary items.

## 1.4 The Trees

This report assesses twenty-two (22) trees within and adjacent to the site, including one (1) in neighbouring properties and six (6) in the Council verge. Details of the species, dimensions, health, and condition of the assessed trees are contained in the **Tree Survey Information Table** (page 15).

## 1.5 The Proposed Development

The proposed development consists of demolition, construction (a five storey residential unit building with basement carparking), installation of underground services, installation of overhead services, landscaping, amalgamation (from four lots to one lots) and infrastructure installation (utilities services) as shown on the plans by Morson Group.

## 2. Background

### 2.1 Tree management controls

Canterbury-Bankstown Development Control Plan (DCP) 2023 Chapter 2.3 *Tree Management* applies to all public trees; and trees 5m or more in height; all mangroves; trees with ecological status listed under the Biodiversity Conservation Act 2016; trees listed under the Environmental Protection and Biodiversity Conservation Act 1999; trees on Biodiversity Map land; trees on heritage item sites; and trees in the foreshore area. The trees assessed in this report are subject to the DCP, except where stated otherwise.

### 2.2 Reference Documents

The following documents were referred to in the preparation of this report:

- Architectural plan: Morson Group, Dwg Nos DA01, DA12 & DA15, Rev P8, 2024-06-05.
- Landscape plan: Paul Scrivener Landscape, Job No. 24/2680, Issue F, 19.8.24.
- Survey: Norton Survey Partners, Job No. 52042, Rev A. 7.06.24.
- Australian Standard *AS4373-2007 Pruning of amenity trees*.
- Australian Standard *AS4970-2009 Protection of trees on development sites*.
- Canterbury-Bankstown Development Control Plan (DCP) 2023 Chapter 2.3 *Tree Management*.
- Canterbury-Bankstown Local Environmental Plan 2023.
- *IACA Significance of a Tree, Assessment Rating System (STARS)*, Institute of Australian Consulting Arboriculturists, [www.iaca.org.au](http://www.iaca.org.au), 2010.
- State Environmental Planning Policy (Biodiversity and Conservation) 2021.

## 3. Tree Assessment Methodology

### 3.1 Limitations and Assumptions

The recommendations in this report rely on the provided information, including architectural plans and documents, limited to those listed in section 2.2 (**Reference Documents**).

Care has been taken to obtain all information from reliable sources; however, the author makes no representations, guarantees or warranties as to the accuracy of information provided by others. Similarly, no warranties are made as to the accuracy or completeness of any reproduction of this report. This report is only valid in its entirety and for the purpose for which it was prepared.

Conditions on the site may change after the tree assessment. Liability will not be accepted for damage or injury as a result of unforeseeable events or natural processes.

This report does not constitute or include a tree risk assessment. Where defects are noted, these are recommended for further investigation where warranted. Other tree defects may be present which have not been noted.

### 3.2 Tree Assessment

Visual tree assessment or "tree survey" was carried out by Peter Richards, Arboricultural Consultant, in August 2021, due to covid lockdowns at that time. Due to current time constraints, an additional site inspection has not been carried out, so this assessment relies on data collected in 2021. The tree inspection was limited to a visual assessment from ground level, without excavation, coring, drilling, climbing or other testing. Trunk diameters were measured at "breast height" (1.4m above ground) and above the root buttress, to the nearest 10mm, using a standard tape measure, crown spreads were paced out on site and recorded in metre diameters or cardinal radii (N, S, E & W) where relevant, and tree heights were estimated by eye and recorded in metres. The Arboricultural Impact Assessment utilises the Australian Standard *AS4970-2009 Protection of trees on development sites*.

### 3.3 Tree Survey Data Definitions

Refer to the **Tree Survey Information Table** (page 15).

**Retention Values** are assigned using the IACA STARS (2010) method and matrix. The method combines the factors of Significance and Estimated or Useful Life Expectancy to provide a value of High, Medium, Low or Remove/Very Low which should form the main metric to inform decision making and prioritising of tree retention.

**Useful Life Expectancy (ULE)** ranges are estimated for each tree, as either Long (40+ years), Medium (15-40 years), Short (5-15 years) or Remove (less than 5 years). The ratings are based on the assessed health, condition and structure of each tree at the time of assessment, in its specific location and growing context. The ULE does not imply a risk or "safety" measure, or a statement of a tree's retention value. The ratings are not static, and may be revised during future assessments if conditions change.

**Significance** ratings are given for each tree, based on their Amenity Value, Ecological Value, size and location, and are broadly based on the Tree Significance Assessment Criteria in the IACA STARS (2010) method. While High significance trees provide substantial values to their surroundings, Low and Medium significance trees also contribute to the Urban Forest and in many cases may grow to become High significance trees, given the opportunity.

An **Amenity Value** rating of High, Medium or Low has been assigned to each tree, based on the visual, aesthetic, scenic, cultural, heritage, social, and health benefits provided by the tree in its context.

An **Ecological Value** rating of High, Medium or Low has been assigned to each tree, based on the species and potential habitat or native animal browsing values, however this should not be taken as ecological advice.

## 4. Observations and Discussion

### 4.1 Trees within the Proposed Development Footprint

Seven (7) trees (**Trees 1, 3, 4, 14, 15, 16, 17**) are located within the footprint of the proposed development, and in the context of the current proposal as designed, these trees will be required to be removed.

#### 4.1.1 High Retention Value Tree Proposed to be Removed

One (1) tree (**Tree 16**) is a mature native palm tree located in the front yard of 6 Hinemoa St, and will be within the footprint of the proposed development. This tree will require removal in the context of the current development proposal. This tree is of High Retention Value, however, its location close to the existing dwelling means that its location is central on the site and if retained it would involve major design modifications including removing three units and reducing the size of the basement.

Consideration should be given to transplanting the tree to a suitable location on site prior to works commencing, such as within an increased fenced tree protection area south of **Tree 11** where it could be managed and protected during construction without obstructing works.

If transplant cannot be practicably and cost-effectively carried out, a replacement tree of similar species or other suitable native species should be planted on site to offset the loss of this tree.

#### 4.1.2 Medium Retention Value Tree Proposed to be Removed

One (1) Council-owned street tree (**Tree 17**) is located within the footprint of the proposed driveway crossover for the basement carparking and will require removal in the context of the current development proposal. This tree is of Medium Retention Value, however, design modifications would need to be significant to retain the tree. This tree should not be considered a constraint on the proposed development, provided that a suitable replacement street tree is planted (or funded and carried out by Council) in a suitable public location, to offset the loss of the tree in this development.

#### 4.1.3 Low Retention Value Trees Proposed to be Removed

Five (5) trees (**Trees 1, 3, 4, 14, 15**) are located within the footprint of the proposed development and will require removal in the context of the current development proposal. These trees are of Low Retention Value, and should not be considered a constraint on the proposed development.

### 4.2 Trees with Major Encroachment from the Proposed Development

Five (5) trees (**Trees 2, 7, 8, 9, and 18**) will have major encroachments from the proposed development, and two (2) of these (**Trees 7 and 18**) will require tree sensitive construction measures. The other three (3) are exempt weed species.

#### 4.2.1 High Retention Value Tree Proposed to be Retained

One (1) palm tree (**Tree 7**) one site will have major encroachments from the proposed front masonry wall and courtyard level excavation.

**Tree 7** is 1.4m from the proposed masonry fence, which is a 28% (major) encroachment. This tree also has proposed excavation for courtyard levels within its TPZ area beyond the masonry fence. This tree is of High Retention Value, and will require careful excavation for wall footings, which should be isolated pier and beam footings without excavating a strip footing, to minimise tree root impacts.

#### 4.2.2 Low Retention Value Tree Proposed to be Retained

One (1) small tree (**Tree 18**) located within the neighbouring property (8 Hinemoa St) and will have a major encroachment from the proposed driveway entry to the basement carpark. This tree is 2.1m from the proposed driveway, which is a 15% (major) encroachment. This tree is of Low Retention Value, however it is located on an adjoining property and cannot be removed without owner's and Council consent. Hence this tree needs to be retained and protected by utilising tree protection devices and tree sensitive excavation methods. The excavation should be as far from the tree as possible to minimise root loss. Crown protection should be implemented, in the form of fencing to the dripline if possible, or tying back branches to avoid impacts by construction vehicles and plant.

#### 4.2.3 Low Retention Value Trees Proposed to be Removed

Three (3) trees (**Trees 2, 8, and 9**) will have major encroachments from the proposed development and will require removal in the context of the current development proposal. These trees are of Low Retention Value and should not be considered a constraint on the proposed development due to their exempt (weed) species.

### 4.3 Trees with Minor Encroachment from the Proposed Development

Three (3) trees (**Trees 5, 6, and 10**) will have minor encroachments from the proposed development, and two (2) of these (**Trees 5 and 6**) are Council-owned street trees and will require tree sensitive construction measures and tree protection fencing. **Tree 10** is an exempt weed species.

#### 4.3.1 Medium Retention Value Trees Proposed to be Retained

Two (2) trees (**Trees 5 and 6**) will have minor encroachments from the proposed development. These trees are of Medium Retention Value, and can be retained without design modifications. Tree protection fencing should be installed to exclude as much of the soil area in the nature strip as possible, from any works, parking or access throughout the development. Any works within the site requiring excavation should be done using tree sensitive construction methods. Underground services should not be located within the TPZ areas as shown on the TPP.

#### 4.3.2 Low Retention Value Tree Proposed to be Removed

One (1) tree (**Tree 10**) will have a minor encroachment from the proposed basement excavation. This tree is of Low Retention Value due to its weed species, and should not be considered a constraint on the proposed development.

### 4.4 Trees with No Encroachments from the Proposed Development

Seven (7) trees (**Trees 11, 12, 13, 19, 20, 21, and 22**) are located in positions that will not be impacted by the proposed development, however, **Trees 12 and 13** are recommended for removal regardless of the proposed development, due to their exempt weed species. Tree protection measures will be required to exclude all works access from **Trees 11, 19, 20, 21, and 22** TPZ areas throughout the works.



## 5. Recommendations

### 5.1 Tree Transplant

- Consider transplanting **Tree 16** to a suitable location on the site, prior to works commencing to preserve the amenity currently provided by this tree.

### 5.2 Tree Removal

- Remove seven (7) trees (**Tree 1, 3, 4, 14, 15, 16, and 17**) as they are within the proposed development footprint.
- Remove three (3) trees (**Trees 2, 8, and 9**) as they have major encroachments from the proposed development.
- Remove one (1) tree (**Tree 10**) as it has minor encroachments from the proposed development.
- Remove two (2) trees (**Trees 12 and 13**) which have no encroachments with the proposed development, due to their exempt weed species.

### 5.3 Tree Retention

- Retain and protect **Trees 7 and 18** which have major encroachments from the proposed development.
- Retain and protect **Trees 5 and 6** which have minor encroachments from the proposed development.
- Retain and protect **Trees 11, 19, 20, 21, and 22** which have no encroachments from the proposed development.

### 5.4 Tree Protection Devices

- Install tree protection fencing (1.8m high temporary site fencing with concrete feet, or equivalent, not star pickets) around the TPZ areas as shown on the **Tree Protection Plan**, prior to demolition commencing, to exclude demolition and construction access from tree protection areas. Maintain the fencing in situ throughout all works.
- Install ground protection (100mm depth of mulch overlaid with steel plates, rumbleboards, trackmats or similar to areas requiring ongoing or vehicular access, or materials or waste storage; otherwise, mulch overlaid with plyboard or similar to areas with pedestrian only access) to any area of TPZ which can't be surrounded by fencing and as shown on the **Tree Protection Plan**. Ground protection can be excluded where existing hard surfaces (concrete, paving etc) remain in place over the soil.
- Install trunk protection to any trees which can't be fenced due to site constraints, or where works access to TPZ areas is likely to occur, and as shown on the **Tree Protection Plan**. Trunk protection should be in the form of jute, thick hessian or other soft/shock absorbing material wrapped loosely around stems and main branches, with timber battens strapped around the stem at 100mm centres. No part of the timber battens should come into contact with tree parts (trunk, branches, roots, buttresses, bark).
- Install mulch, soil remediation, and temporary irrigation to the fenced TPZ areas, and TPZ signage on the outside faces of the fencing.

### 5.5 Tree Sensitive Construction Measures

- Avoid damage to roots of 40mm diameter or greater. If roots greater or equal to 40mm are encountered, maintain the root/s in situ and contact the Project Arborist to assess and advise on root management.
- Utilise tree sensitive excavation methods where within a TPZ area. The excavation must be done by non-destructive (to tree roots) excavation method (hand excavation, Air spade, water laser with pressure of less than 1000PSI or directional boring at a depth of >0.8m).
- Where the Project Arborist advises that works can be carried out with careful machine excavation, a spotter is needed to watch for tree roots and stop works if roots are encountered. Roots less than 40mm diameters may be cut cleanly at the edge of the trench if approved by the Project Arborist, before continuing excavation. Roots of 40mm diameter or greater should be maintained in situ without damage, and assessed by the Project Arborist if it is proposed to prune the root/s.
- The width of trenches will need to be minimised where passing through or near TPZ areas, and located as far from trees as possible. If trenches are proposed to be closer to trees or wider than shown on the Tree Protection Plan, then non-destructive excavation is required.

### 5.6 Project Arborist Involvement

- Engage a Project Arborist with an AQF Level 5 qualification in arboriculture to provide inspections, assessment, advice and certifications in accordance with any relevant consent conditions, and the hold points listed at section 5.10.
- The Project Arborist should be on site prior to movement or adjustment of tree protection, if any further works are proposed (including pruning, and ancillary works such as underground services) and if any conflicts between trees and works arise.

### 5.7 Construction Tree Management

- Storage of materials, location of site sheds and work areas, and vehicle movement around the site must be placed to avoid and reduce impacts on trees to be retained.
- Avoid storage and dumping of materials, and machine and construction access to landscape soil areas to be planted, except where ground protection is installed.

### 5.8 Pruning

- No pruning is required for clearance of the proposed buildings. Any proposed pruning will require a separate tree management permit from Council.

### 5.9 Replacement Tree Planting

- Install ten (10) medium (8m minimum mature height) replacement trees from minimum 100L containers and two (2) large (15m minimum mature height) replacement trees from minimum 100L containers, in suitably prepared and improved site soil within the property to offset the loss of tree canopy, as shown on the landscape plans.
- Install one (1) tree in the Council verge, to Council's specifications.
- Trees should be high quality nursery grown plant stock and planted by persons with horticultural qualifications. The trees should be maintained to maturity.
- Avoid storage and dumping of materials, and machine and construction access to landscape soil areas to be planted, except where ground protection is installed.

### 5.10 Project Arborist Hold Points

No.	Hold Point	Timing
1	Review final design plans (landscape design, architectural plans, services plans, construction drawings)	Prior to works commencing
2	Pre start meeting - Project Arborist & Site Supervisor	Prior to works commencing
3	Installation of tree protection - inspection	Prior to works commencing
4	Demolition of existing ground surfaces and structures in TPZ areas - attend during works in TPZ	At commencement of demolition in TPZ
5	Prior to any tree pruning - inspection	Prior to pruning
6	Prior to installation of any underground services, paving, subbase or structures within Tree Protection Zones - inspection	Prior to works in TPZ
7	Relocation or removal of any tree protection measures	Prior to modifying the TPZ
8	Removal of tree protection - inspection	At completion

The recommendations of this report do not constitute consent to carry out works. Approval is required in the form of Development Application to prune or remove trees, as well as the consent of the tree owner where trees are on neighbouring properties.

Further information and clarification can be obtained from the author.



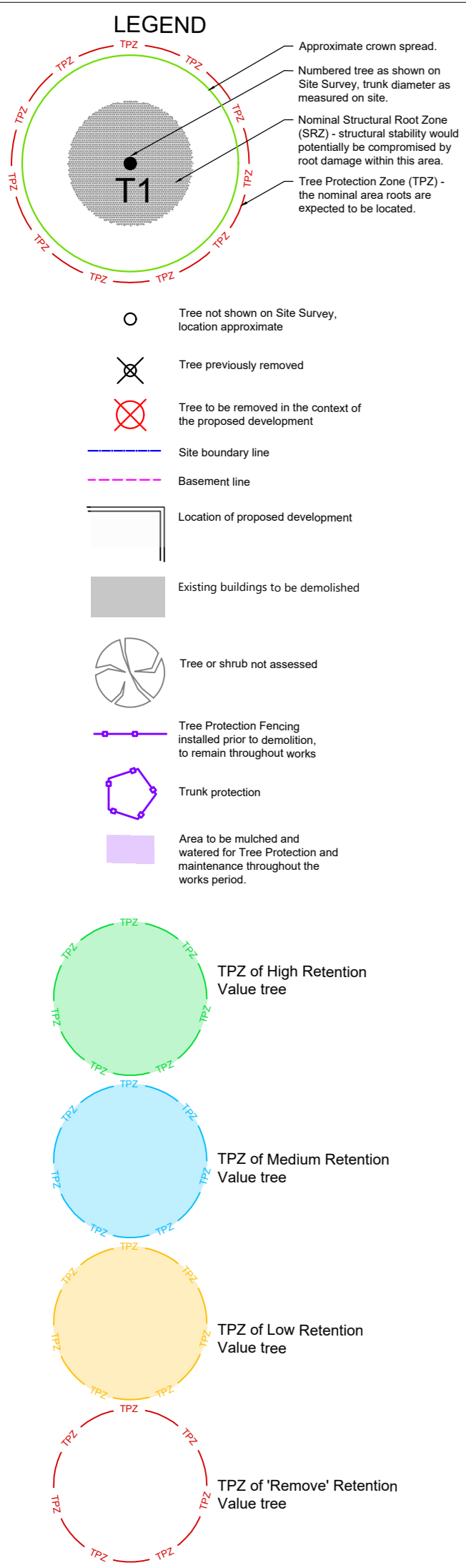

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Tree No.	Botanical & Common Name	Location	Height	Spread	Calculated Multi Stem DBH (mm)	DBH (mm)	DRB (mm)	Age	Health	Condition	ULE	Significance	Amenity Value	Ecological Value	SRZ	TPZ	Retention Value (stars)	Site Notes	Development Encroachment	Development Impact	Outcome
1	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	15	6	640	450/450	500	M	G	Av	M	M	L-M	L-W	2.5	5.4	Low	Drought stress when younger evident through trunk narrowing near base. Exempt species.	100%	Within proposed building works & excavation.	Rem
2	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	11	5	570	400/400	450	M	G	Av	M	M	M	L-W	2.4	4.8	Low	Palm appeared free of insect predation and disease. Exempt species.	35%	0.8m from proposed retaining wall & excavation.	Rem
3	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	15	6	570	400/400	450	M	G	Av	M	M	M	L-W	2.4	4.8	Low	Drought stress when younger evident through trunk narrowing near base. Exempt species. Located within 3m of dwelling -	100%	Within proposed building works & excavation.	Rem
4	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	12	5	570	400/400	450	M	G	Av	M	M	M	L-W	2.4	4.8	Low	Palm appeared free of insect predation and disease. Exempt species.	100%	Within proposed retaining wall & excavation.	Rem
5	<i>Callistemon viminalis</i> Weeping Bottlebrush	Council verge	10	8	640	450/450	500	M	G	Av	M	M	M	M	2.5	5.4	Med	Tree appearing free of insect predation and disease. Verge tree.	4%	1.9m from existing footpath, 3.5m from proposed structures.	Ret
6	<i>Callistemon viminalis</i> Weeping Bottlebrush	Council verge	10	8	640	450/450	500	M	G	Av	M	M	M	M	2.5	5.4	Med	Tree appeared free of insect predation and disease. Verge tree.	12%	1.9m from existing footpath, 3.4m from proposed structures.	Ret
7	<i>Washingtonia robusta</i> Washington Palm	On site	17	7	640	450/450	500	M	G	Av	L	M	M	L	2.5	5.4	High	Palm appeared healthy.	28%	1.4m from proposed privacy wall & 3.3m from proposed excavation.	Ret*
8	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	10	3		450/450	500	M	G	Av	M	L-M	M	L-W	2.5	5.4	Low	Palm appeared free of insect predation and disease. Exempt species.	15%	3m from proposed basement excavation.	Rem
9	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	11	4	610	430/430	500	M	G	Av	M	L-M	M	L-W	2.5	5.2	Low	Palm appeared free of insect predation and disease. Exempt species.	19%	1.6m from proposed basement excavation.	Rem
10	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	11	4	640	450/450	500	M	G	Av	M	L-M	M	L-W	2.5	5.4	Low	Palm appeared free of insect predation and disease. Exempt species.	4%	4.4m from proposed basement excavation.	Rem
11	<i>Jacaranda mimosifolia</i> Jacaranda	On site	8	5	290	200/200	250	M	G	Av	M-L	M	M	L	1.8	2.4	High	Lopped at ground. Multiple leaders extending from lopped point.	0%	No impact.	Ret
12	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	8	3	400	280/280	300	M	G	Av	M	L-M	M	L-W	2.0	3.4	Low	Palm appeared free of insect predation and disease. Exempt species.	0%	No impact.	Rem
13	<i>Olea europea ssp. cuspidata</i> African Olive	On site	8	4		150	200	M	G	Av	L	L	L-M	L-W	1.7	2.0	Low	Urban weed species. Exempt species.	0%	No impact.	Rem
14	<i>Syagrus romanzoffianum</i> Cocos Palm	On site	9	4		450	500	M	G	Av	M	L	L-M	L-W	2.5	5.4	Low	Palm appeared free of insect predation and disease. Exempt species.	100%	Within proposed basement excavation.	Rem
15	<i>Prunus cerasifera</i> Cherry Plum	On site	6	5		200	250	M	G	Av	M	L	L	L	1.8	2.4	Low	Crown partially lopped. Located within 3m of dwelling - exempt	100%	Within proposed basement excavation & building.	Rem

Tree No.	Botanical & Common Name	Location	Height	Spread	Calculated Multi Stem DBH (mm)	DBH (mm)	DRB (mm)	Age	Health	Condition	ULE	Significance	Amenity Value	Ecological Value	SRZ	TPZ	Retention Value (stars)	Site Notes	Development Encroachment	Development Impact	Outcome
16	<i>Archontophoenix alexandrae</i> Alexander Palm	On site	12	3		380	400	M	G	Av	M-L	M	M	M	2.3	4.6	High	Palm appeared free of insect predation and disease.	100%	Within proposed basement excavation & building.	Rem
17	<i>Tristaniaopsis laurina</i> Water Gum	Council verge	4	3		250	300	M	G	Av	M	M	M	M	2.0	3.0	Med	Smaller tree appearing structurally sound. Verge tree.	100%	Within proposed driveway crossover.	Rem
18	<i>Leptospermum petersonii</i> Lemon Scented Tea Tree	Neighbouring	6	6		300	350	M	G	Av	S-M	L-M	L-M	M	2.1	3.6	Low	Tree appeared free of insect predation and disease. Tree in neighbouring property.	15%	2.1m from proposed driveway & retaining wall with excavation.	Ret
19	<i>Callistemon viminalis</i> Weeping Bottlebrush	Council verge	5	6		400	450	M	G	Av	M	M	M	M	2.4	4.8	Med	Tree appeared free of insect predation and disease. Verge tree.	0%	1.7m from existing footpath, 4.8m from proposed structures.	Ret
20	Street tree	Council verge	3	1				J			L	M	M	M	1.5	2.0	High	Recently planted street tree (not assessed).	0%	No impact. Protect throughout works.	Ret
21	Street tree	Council verge	3	1				J			L	M	M	M	1.5	2.0	High	Recently planted street tree (not assessed).	0%	No impact. Protect throughout works.	Ret
22	Street tree	Council verge	3	1				J			L	M	M	M	1.5	2.0	High	Recently planted street tree (not assessed).	0%	No impact. Protect throughout works.	Ret

**Key:** Height (in metres) ; Spread (crown spread in metres) ; DBH (Diameter at Breast Height / 1.4m) in millimetres ; DRB (Diameter above Root Buttress) in millimetres ; Age (Semi-mature, Mature, Overmature, or Senescent) ; Health (Good, Average or Poor) ; Condition (Good, Average or Poor) ; Useful Life Expectancy (ULE) (Short, Medium or Long) ; Significance (High, Medium or Low) ; Amenity Value (High, Medium or Low) ; Ecological Value (High, Medium or Low) ; SRZ (Structural Root Zone) radius in metres ; TPZ (Tree Protection Zone) radius in metres



**Silver/Gold Livable Street Units notes:**  
 Wet areas for such that flush transits is available

Silver Units: 1, 3, 5, 10, 11, 12, 13, 15, 16, 17, 19, 20, 21, 22, 23, 25, 26, 27, 29, 30, 31, 32, 33, 35, 36, 37, 39, 40, 41, 42

Gold Units: 4, 6, 7, 8, 14, 18, 24, 28, 34, 38

MUST BE READ IN CONJUNCTION WITH ARBORICULTURAL IMPACT ASSESSMENT REPORT

BASED ON GROUND FLOOR PLAN BY MORSON GROUP REV. P2 DATED 09/08/23 & SURVEY BY NORTON SURVEY PARTNERS DATED 23/08/2021

REV	DESCRIPTION	DRAWN	CHECKED	DATE
A	PRELIMINARY SITE ANALYSIS-TREE IMPACT PLAN-FOR COORDINATION	HM	JB	22-09-21
B	ARBORICULTURAL IMPACT ASSESSMENT - TREE PROTECTION PLAN - FOR REPORT	HM	JB	05-08-24



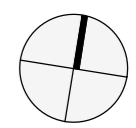
**SYDNEY**  
 Email: jacki@newleafrees.com.au  
 Web: www.newleafrees.com.au

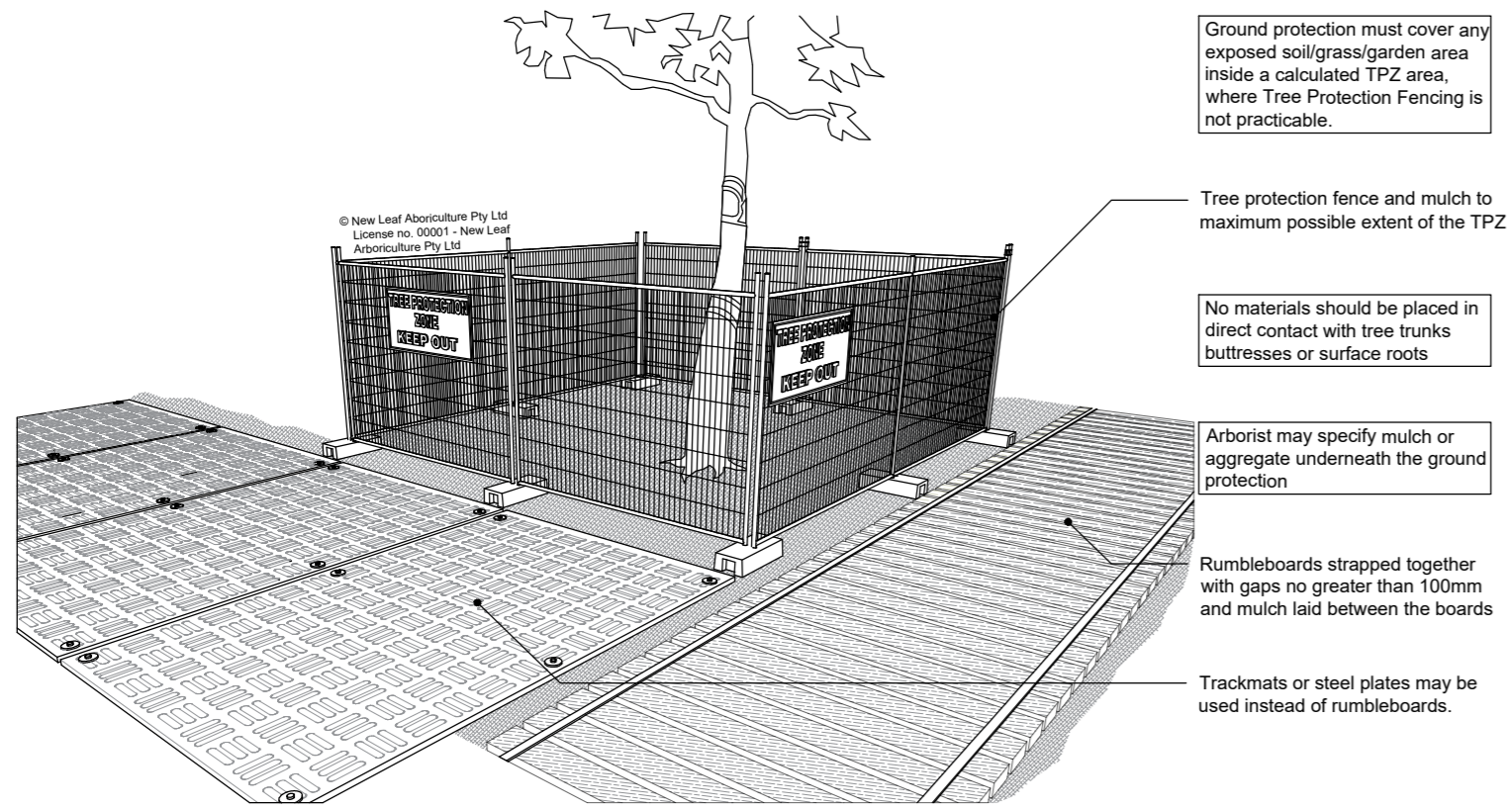
**JACKI BROWN, B.A., Dip. Hort. (Arb)**  
 Accredited Member of the Institute of Australian Consulting Arboriculturists  
 Member of the International Society of Arboriculture

1. Do not scale from drawings.
2. Verify all measurements on site.
3. Notify New Leaf Arboriculture of any inconsistencies.
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ADDRESS: 171 WESTON ST. & 2-6 HINEMOA ST. PANANIA  
 PROJECT: PROPOSED HOUSING DEVELOPMENT  
 CLIENT: NSW LAND & HOUSING CORP.

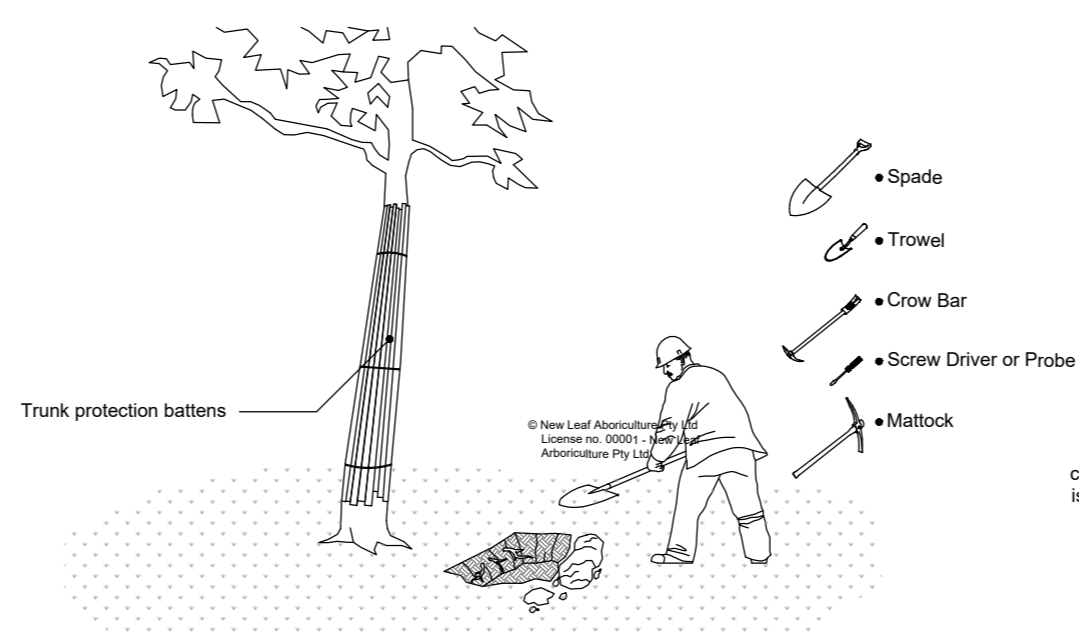
DRAWING: TREE PROTECTION PLAN			
SCALE: 1:200 @ A2	ISSUE: DA	SHEET: T - 01 of 2	
DRAWN: HM	CHECKED: JB	DATE: 05-08-24	REVISION: B



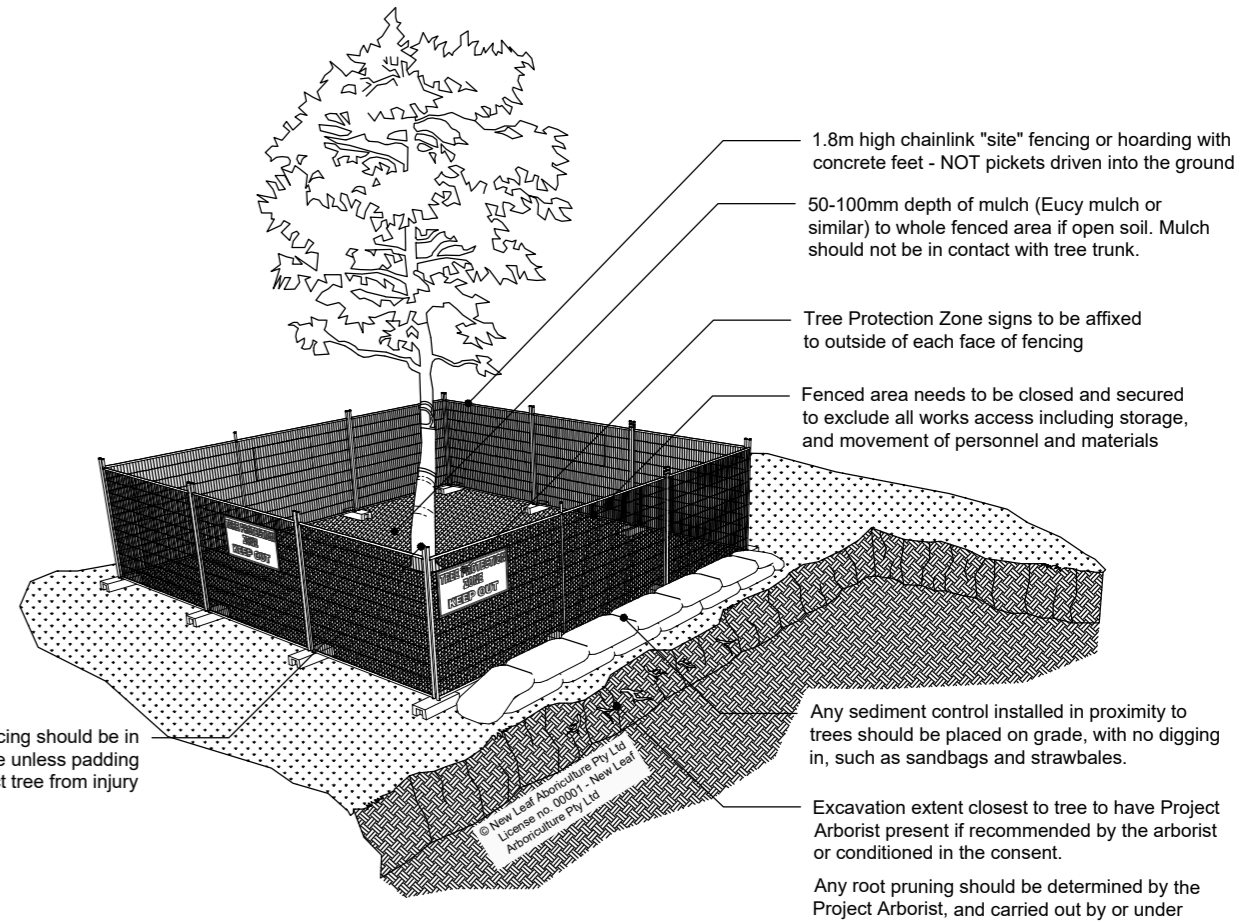


**GROUND PROTECTION DETAIL**

INDICATIVE ONLY - REFER TO ARBORICULTURAL REPORT AND/OR TREE PROTECTION PLAN FOR REQUIRED EXTENTS OF TREE PROTECTION AND TREE SENSITIVE WORK METHODS.

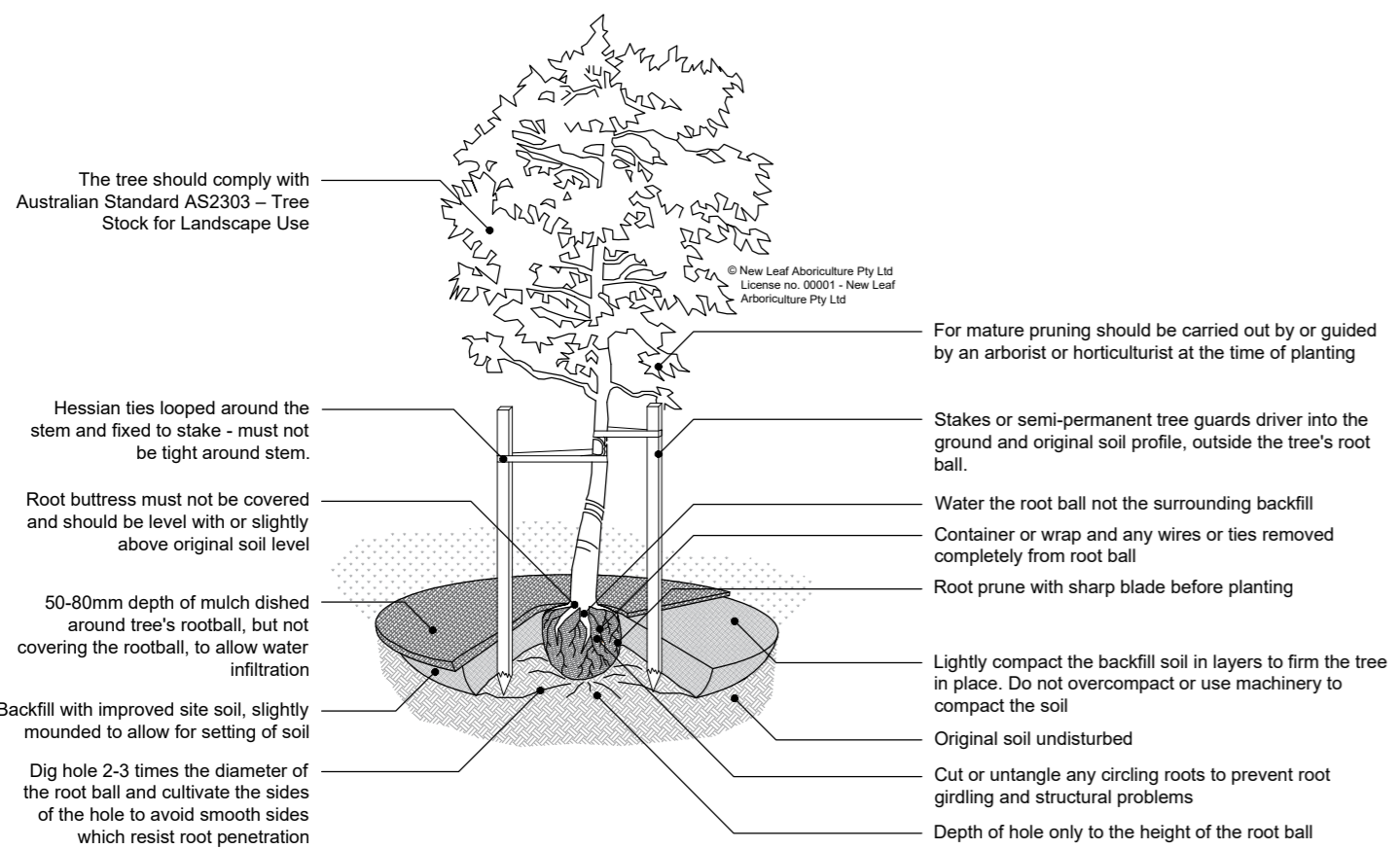


**HAND TOOL EXCAVATION**

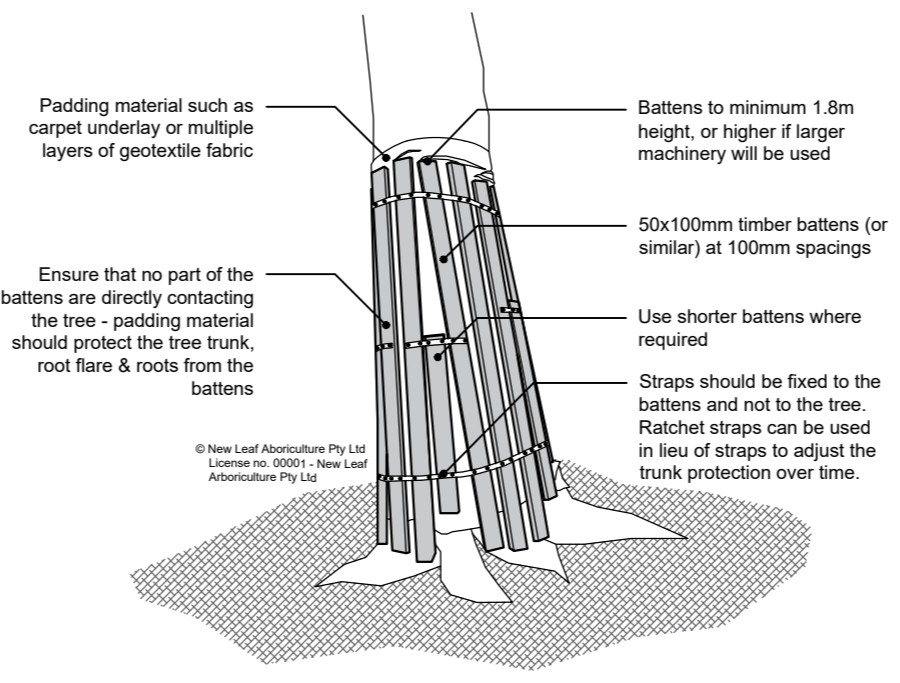


**TREE PROTECTION FENCING AND WORKS NEAR TREES DETAIL**

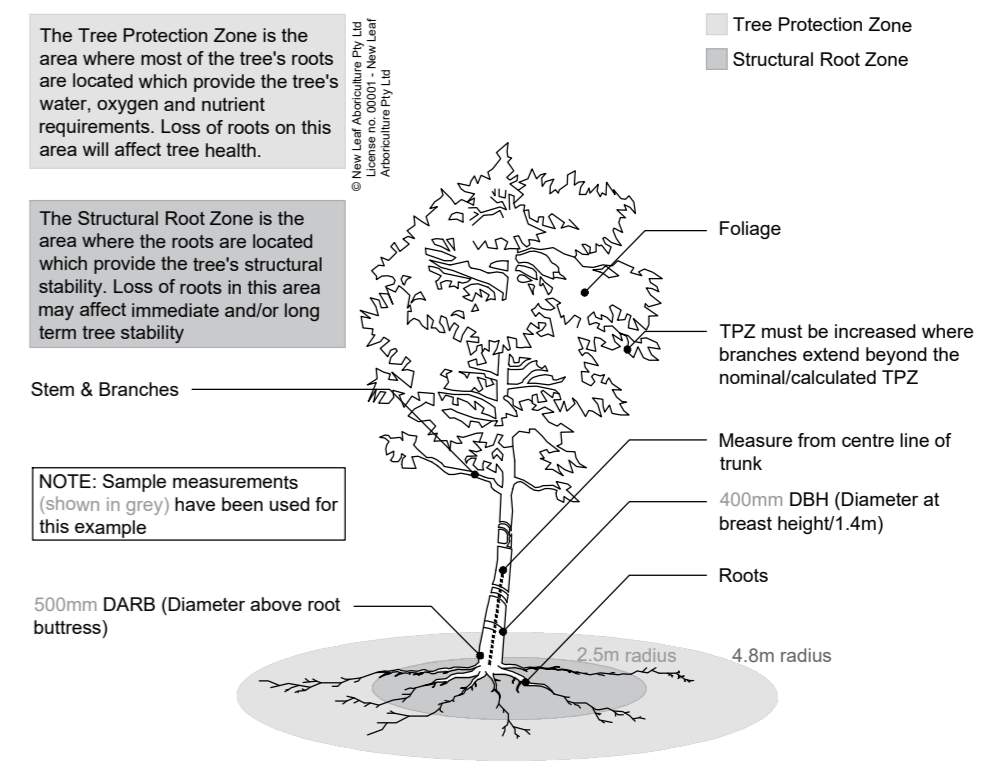
INDICATIVE ONLY - REFER TO ARBORICULTURAL REPORT AND/OR TREE PROTECTION PLAN FOR REQUIRED EXTENTS OF TREE PROTECTION AND TREE SENSITIVE WORK METHODS.



**TREE PLANTING DETAIL (AUSTRALIA)**



**TRUNK PROTECTION DETAIL**



**EXAMPLE TREE PROTECTION ZONE**

REV	DESCRIPTION	DRAWN	CHECKED	DATE
A	PRELIMINARY SITE ANALYSIS-TREE IMPACT PLAN-FOR COORDINATION	HM	JB	22-09-21
B	ARBORICULTURAL IMPACT ASSESSMENT - TREE PROTECTION PLAN - FOR REPORT	HM	JB	05-08-24



**SYDNEY**  
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PROJECT	PROPOSED HOUSING DEVELOPMENT
CLIENT	NSW LAND & HOUSING CORP.

<b>TREE PROTECTION DETAILS</b>			
SCALE	1:200 @ A2	ISSUE	DA
		SHEET	T - 02 of 2
DRAWN	HM	CHECKED	JB
		DATE	05-08-24
		REVISION	B

