



EARTHSCAPE HORTICULTURAL SERVICES
Arboricultural, Horticultural and Landscape Consultants

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**ARBORICULTURAL IMPACT
ASSESSMENT REPORT**

**PROPOSED AFRICAN SAVANNAH AND
CONGO EXHIBITS**

TARONGA ZOO
BRADLEYS HEAD ROAD, MOSMAN

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- 2.1.2 The site has a moderate to steep south-westerly gradient, with a number of asphalt pathways, various animal enclosures and exhibits and large treed and open space areas comprising the Zoo. The trees include a variety of locally-indigenous, non-local native and exotic species. The western portion of the site includes mostly locally-indigenous species, typical of dry sclerophyll forest found throughout the Sydney basin on Hawkesbury sandstone. The eastern portion of the site includes a variety of species more typical of temperate and tropical rainforest, with a few locally-indigenous species. The majority of the trees appear to have been planted within the site to replicate various habitats.
- 2.1.3 Soils of this area are typical of the Hawkesbury Soil Landscape Group (as classified in the Soil Landscapes of the Sydney 1:100,000 Sheet), consisting of shallow (less than 500 mm) discontinuous *Lithosols* and *Siliceous Sands* associated with rock outcrop; *Earthy Sands*, *Yellow Earths* and some *Yellow Podzolic soils* occur on inside of benches and along joints and fractures. Localised *Yellow and Red Podzolic soils* also occur in association with shale lenses. Soil materials are derived from Hawkesbury Sandstone. ¹ The landscape of this area consists of rolling to very steep hills with slope gradients varying from 25-70%. Rock outcrop occurs as horizontal benches and broken scarps up to 10 metres, with boulders and cobble covering up to 50% of the ground surface.
- 2.1.4 The original vegetation of this area consisted of open forest and woodland typical of Hawkesbury Sandstone areas, most of which has now been cleared for urban development.² The dominant locally-indigenous tree species formerly occurring in this area included *Angophora costata* (Sydney Red Gum), *Corymbia gummifera* (Red Bloodwood) and *Eucalyptus haemastoma* (Scribbly Gum). Other species occurring in this association may include *Eucalyptus botryoides* (Bangalay), *Eucalyptus punctata* (Grey Gum), *Eucalyptus sieberi* (Silver-top Ash) *Eucalyptus globoides* (White Stringybark) and *Banksia serrata* (Old Man Banksia). *Glochidion ferdinandi* (Cheese Tree) and *Ficus rubiginosa* (Port Jackson Fig) may also be found on sheltered sites on lower slopes.

3 SUBJECT TREES

- 3.1.1 The subject trees were inspected by Earthscape Horticultural Services (EHS) on the 10th to 16th June 2016. Each tree has been provided with an identification number for reference purposes denoted on the attached Tree Location Plan (**Appendix 5**), based on the survey prepared by Hammond Smeallie & Co. Pty Ltd, Dwg. Ref No. Issue 1 dated 23/05/2016. The numbers used on this plan correlate with the Tree Assessment Schedule (**Appendix 3**). Trees indicated with an alpha suffix (e.g. T126a) were not shown on the original survey and have been plotted on the drawing in their approximate positions.

4 HEALTH AND CONDITION ASSESSMENT

4.1 Methodology

- 4.1.1 An assessment of each tree was made using the Visual Tree Assessment (VTA) procedure.³ All of the trees were assessed in view from the ground. No aerial inspection or diagnostic testing has been undertaken as part of this assessment.
- 4.1.2 The following information was collected for each tree:-
- Tree Species (Botanical & Common Name);
 - Approximate height;
 - Canopy spread; measured using a metric tape and an average taken.
 - Trunk diameter (measured at 1.4 metres from ground level);
 - Live Crown Size; (measured by subtracting the total height of the tree from the lowest point of the crown and multiplying by the average crown spread to give a value in square metres).

- Health & vigour; using foliage size, colour, extension growth, presence of disease or pest infestation, canopy density, presence of deadwood, dieback and epicormic growth as indicators,
- Condition; using visible evidence of structural defects, instability, evidence of previous pruning and physical damage as indicators.
- Suitability of the tree to the site and its existing location; in consideration of damage or potential damage to services or structures, available space for future development and nuisance issues.

4.1.3 This information is presented in a tabulated form in **Appendix 3**.

4.2 Safe Useful Life Expectancy (SULE)

4.2.1 The remaining Safe Useful Life Expectancy⁴ of the tree is an estimate of the sustainability of the tree in the landscape, calculated based on an estimate of the average age of the species in an urban area, less its estimated current age. The life expectancy of the tree has been further modified where necessary in consideration of its current health and vigour, condition and suitability to the site. The estimated SULE of each tree is shown in **Appendix 3**.

4.2.2 The following ranges have been allocated to each tree:-

- Greater than 40 years (Long)
- Between 15 and 40 years (Medium)
- Between 5 and 15 years (Short)
- Less than 5 years (Transient)
- Dead or immediately hazardous (defective or unstable)

5 LANDSCAPE SIGNIFICANCE

5.1 Methodology for Determining Landscape Significance

5.1.1 The significance of a tree in the landscape is a combination of its amenity, environmental and heritage values. Whilst these values may be fairly subjective and difficult to assess consistently, some measure is necessary to assist in determining the retention value of each tree. To ensure in a consistent approach, the assessment criterion shown in **Appendix 1** have been used in this assessment.

5.1.2 A rating has been applied to each tree to give an understanding of the relative significance of each tree in the landscape and to assist in determining priorities for retention, in accordance with the following categories:-

1. **Significant**
2. **Very High**
3. **High**
4. **Moderate**
5. **Low**
6. **Very Low**
7. **Insignificant**

5.2 Environmental Significance

5.2.1 Tree Management Controls

Prescribed Trees within the Municipality of Mosman are protected under Section 4.10 of the *Mosman Open Space and Infrastructure Development Control Plan (MOSIDCP) 2012*, made pursuant to Clause 5.9 of the *Mosman Local Environment Plan (MLEP) 2012*. The MOSIDCP generally protects all trees with a height of five (5) metres or greater and with a trunk

circumference exceeding 450 mm (i.e. 140 mm diameter). Tree ferns greater than 2 metres in height are also protected. Trees located within a Heritage Conservation Area are protected where they are greater than two (2) metres in height. Some exemptions apply. The following trees are exempt (not protected) under the provisions of MOSIDCP 2012:-

Tree No.	Species	Exemption
T318 & T324	<i>Celtis sinensis</i> (Chinese Nettle Tree)	Environmental Weed Species
T326	<i>Morus nigra</i> (Mulberry tree)	Environmental Weed Species
T429	<i>Ligustrum lucidum</i> (Broad Leaf Privet)	Environmental Weed Species
T412	<i>Syagrus romanzoffianum</i> (Cocos Palm)	Nuisance Species
T312	<i>Hibiscus tiliaceus</i> (Coastal Cottonwood)	Exempt Species
T168, T174, T175, T175b, T436, T440a, T440b, T442, T443, T451 & T452	<i>Olea europaea subsp. africana</i> (African / Wild Olive)	Environmental Weed Species

5.2.2 Wildlife Habitat

Banksia serrata (Old Man Banksia) [T4], *Ceratopetalum gummiferum* (NSW Christmas Bush) [T382, T391, T396, T405], *Elaeocarpus reticulatus* (Blueberry Ash) [T7a, T9 & T394], *Eucalyptus botryoides* (Bangalay) [T55, T330], *Eucalyptus punctata* (Grey Gum) [T97, T310, T311, T380, T390 & T392], *Glochidion ferdinandi* (Cheese Tree) [numerous trees], *Ficus rubiginosa var rubiginosa* (Port Jackson Fig) and *Pittosporum undulatum* (Native Daphne) [numerous trees] are all locally-indigenous species, representative of the original vegetation of the area and would be of benefit to native wildlife. However, none of the trees contain cavities that would be suitable as nesting hollows for arboreal mammals or birds or other visible signs of wildlife habitation.

The site is located within an area nominated as an “existing cosmopolitan habitat” as defined on Mosman Council’s *Biodiversity Corridor and Habitat Link Map* (forming part of the MOSIDCP 2012).

5.2.3 Noxious Plants & Environmental Weeds

Celtis sinensis (Chinese Nettle Tree or Chinese Hackberry) [T318 & T324] is scheduled as a Class 4 Noxious Weed under the meaning of the *Noxious Weeds Act* (NSW) 1993. The growth of this plant species must be managed in a manner that continuously inhibits the ability of the plant to spread and the plant must not be sold, propagated or knowingly distributed. *Ligustrum lucidum* (Broad Leaf Privet) [T429] is also scheduled as a Class 4 Noxious Weed. The growth of this plant species must be managed in a manner that continuously inhibits the ability of the plant to spread.

5.2.4 Threatened Species & Ecological Communities

Syzygium paniculatum (Magenta Cherry or Lilly Pilly) [T307a] is listed as a Vulnerable Species on Schedule 2 of the *Threatened Species Conservation Act* 1995 (NSW) and a Nationally Vulnerable species under the *Environmental Protection and Biodiversity Conservation Act* 1999. Whilst this species is listed as vulnerable, it is a commonly planted ornamental tree and is not endemic to this area. As such, it does not have any ecological significance in the context of this site.

None of the other trees are listed as Threatened or Vulnerable Species or form part of Endangered Ecological Communities (EECs) under the provisions of the *Threatened Species Conservation Act* 1995 (NSW) or the *Environmental Protection and Biodiversity Conservation Act* 1999.

5.3 Heritage Significance

5.3.1 Heritage Items

The first zoological gardens was established on the site in 1912 (officially opened in 1916), covering an area of 42 acres. The Zoo contains a number of unique structures demonstrating past and present zoological practices. Certain elements within Taronga Zoo are listed as Heritage Items of Local Significance [Item No.I34] under Schedule 5 of the *Mosman Local Environment Plan* (2012). These include the “Rainforest Aviary”, “Elephant House”, bus shelter and office, “Floral Clock” and upper and lower entrance gates.

Taronga Zoo also maintains a NSW State Agency ‘*Heritage and Conservation Register*’ as required under Section 70 of the *Heritage Act*, 1977. This includes a large range of items within the site including buildings and enclosures, landscape features, water features, gardens and trees. A summary of these items is shown in Dwg No 60149270 000 Rev 1 prepared by AECOM Australia Pty Ltd dated 13th August 2013. Within the affected area of the site, the trees listed as heritage items in the *Heritage and Conservation Register* include the following:-

- 189L – Area of locally indigenous vegetation
- 272L - *Kigelia africana* (Sausage Tree) [T428]
- 247L - Cape Aloe [T445]
- 248L – Aloe [T446]
- 250L - *Ceratopetalum gummiferum* (NSW Christmas Bush) [T382, T391, T396 & T405]
- 273L - *Acacia* sp. (Sweet Acacia) [T444]
- 277L - *Phoenix roebelenii* (Dwarf Date Palm) [T454]
- 251L - *Spathodea campanulata* (African Tulip Tree) [T458a]
- 255L - *Phoenix reclinata* (Senegal Date Palm) [T458]
- 256L - *Phoenix roebelenii* (Dwarf Date Palm) [T461]
- 287L – *Aloe ferox* (Cape Aloe) [T466a, T467]
- 288L – Kalanchoe
- 289L - *Aloe ferox* (Cape Aloe) [T468, T470]
- 53L – *Araucaria cunninghamii* (Hoop Pine) [T552, T118, T114, T111, T471 & T95]
- 182L - *Ficus microcarpa* var. *hillii* (Hill's Weeping Fig) [T472]
- 271L - *Ceiba* [syn. *Chorisia*] *speciosa* (Silk Floss Tree) [T473]
- 168L - *Podocarpus elatus* (Brown Pine) [T10]
- 160L - *Ficus macrophylla* (Moreton Bay Fig) [T15]
- 184L - *Phoenix sylvestris* (Silver Date Palm) [T93] & *Phoenix canariensis* (Canary Island Date Palm) [T84 – removed to accommodate the Centenary Theatre]
- 243L – *Archontophoenix cunninghamii* (Piccabeen Palm) [T94 - removed to accommodate the Centenary Theatre]
- 161L - *Magnolia grandiflora* (Bullbay Magnolia) [T96, T99]
- 274L – *Ficus longifolia* (Narrow Leaf Fig) [T44]
- 183L - *Phoenix sylvestris* (Silver Date Palm) [T101]
- 278L – Pygmea Date Palm
- 186L - *Lophostemon confertus* (Brushbox) [T500]
- 91L - *Kigelia africana* (Sausage Trees) [T502, T503]

Whilst not specifically listed as heritage items, a number of the trees assessed may date back to the early development of the Zoo, being fairly typical plantings of the Inter-War period. These include

T548 (Brushbox), T563 (Moreton Bay Fig) & T414 [*Ficus rubinosa* f. *glabrescens* (Port Jackson Fig) & T157 (Sacred Fig).

The 'Area of Locally-indigenous Vegetation' encompasses a large number of trees included in this assessment. It should be noted that this area is largely degraded with little remaining native understorey and few canopy trees. The majority of the vegetation in this area consists of *Pittosporum undulatum* (Sweet Pittosporum). Whilst this species is typical of the original vegetation community, it is a mesic species and becomes dominant (to the exclusion of other native plants) in the absence of periodic fire events.

5.3.2 Heritage Conservation Area

The site is *not* located within a Heritage Conservation Area on the Mosman LEP 2012. The site was formerly designated as a Conservation Area under SEPP 56 (Sydney Harbour and Foreshores) [now repealed by SEPP (Major Projects) Amendment (Luna Park Site) Policy 2005] and replaced with SEPP (Major Development) 2005].

The site is located within a 'Scenic Protection Area' as indicated on Council's *Scenic Protection Map* forming part of the Mosman LEP 2012.

5.3.3 Significant Tree Register

None of the subject trees are listed on Council's 'Urban Forest Management Register'.

5.4 Amenity Value

- 5.4.1 Criteria for the assessment of amenity values are incorporated into **Appendix 1**. The amenity value of a tree is a measure of its live crown size, visual appearance (form, habit, crown density), visibility and position in the landscape and contribution to the visual character of an area. Generally the larger and more prominently located the tree, and the better its form and habit, the higher its amenity value.

6 TREE RETENTION VALUES

- 6.1.1 The Retention Values shown in **Appendix 3** and **Appendix 5** have been determined on the basis of the estimated longevity of the trees and their landscape significance rating, in accordance with **Table One**. Together with guidelines contained in **Section 7** (Tree Protection Zones) this information should be used to determine the most appropriate position of building footprints and other infrastructure within the site, with due consideration to other site constraints, to minimise the impact on trees considered worthy of preservation.

TABLE 1 – TREE RETENTION VALUES – ASSESSMENT METHODOLOGY

	Landscape Significance Rating						
Estimated Life Expectancy	1	2	3	4	5	6	7
Long - Greater than 40 Years	High Retention Value						
Medium- 15 to 40 Years			Moderate Retention Value				
Short - 5 to 15 years				Low Ret. Value			
Transient - Less than 5 Years				Very Low Retention Value			
Dead or Potentially Hazardous							

7 TREE PROTECTION ZONES

- 7.1.1 The Tree Protection Zone (TPZ) is a radial distance measured from the centre of the trunk of the tree as specified in **Appendix 4**. These have been calculated in accordance with AS 4970-2009 (Protection of Trees on Development Sites).⁵
- 7.1.2 The intention of the TPZ is to ensure protection of the root system and canopy from the potential damage from construction works and ensure the long-term health and stability of each tree to be retained. Incursions to the root zone may occur due to excavations, changes in ground levels, (either lowering or raising the grade), trenching or other forms of soil disturbance such as ripping, grading or inverting the soil profile. Such works may cause damage or loss of part of the root system, leading to an adverse impact on the tree.

7.2 Structural Root Zone (SRZ)

- 7.2.1 The Structural Root Zone (SRZ) provides the bulk of mechanical support and anchorage for a tree. This is also a radial distance measured from the centre of the trunk as specified in **Appendix 4**. The SRZ has been calculated in accordance with AS 4970-2009 (Protection of Trees on Development Sites).
- 7.2.2 Incursions within the SRZ are not recommended as they are likely to result in the severance of woody roots which may compromise the stability of the tree or lead to its decline and demise.

7.3 Acceptable Encroachments to the Tree Protection Zone.

- 7.3.1 Where encroachment to the TPZ is unavoidable, an incursion to the TPZ of not exceeding 10% of the area of the TPZ and outside the SRZ may be acceptable. Examples of acceptable incursions are shown in **Appendix 2**. Greater incursions to the TPZ may result in an adverse impact on the tree.
- 7.3.2 Where incursions greater than 10% of the TPZ are unavoidable, exploratory excavation using non-destructive methods may be required to evaluate the extent of the root system affected and determine whether or not the tree can remain viable

7.4 Acceptable Encroachments to the Canopy

- 7.4.1 The removal of a small portion of the crown (foliage and branches) is generally tolerable provided that the extent of pruning required is less than 10% of the total foliage volume of the tree and the removal of branches does not create large wounds or disfigure the natural form and habit of the tree. All pruning cuts must be undertaken in accordance with AS 4373:2007. This generally involves reduction of the affected branches back to the nearest branch collar at the junction with the parent branch, rather than at an intermediate point. The latter is referred to as “lopping” and is no longer an acceptable arboricultural practice. Generally speaking, the minimum pruning as required to accommodate any proposed works is desirable. Extensive pruning can result in a detrimental impact on tree health and may lead to exposure of remaining branches to wind forces that they were previously sheltered from, leading to a greater risk of branch failure.
- 7.4.2 Clearance to between the building line and canopy should take into account any projecting structures, such as balconies, awnings and the roofline and any requirement for temporary scaffolding to be erected during construction (typically 1-1.5 metres wide). High structures should preferably be located outside the canopy dripline (as shown indicatively on the attached plans) in order to avoid or minimise canopy pruning.

8 PROPOSED DEVELOPMENT

- 8.1.1 The proposed development includes construction of two new exhibits within the property known as African Savannah and Congo.

9 IMPACT ASSESSMENT

- 9.1.1 The intention of this assessment is to determine the incursions to the root zones and canopies created by the proposed development and evaluate the likely impact of the proposed works on the subject trees. Details shown on the following plans were used in this assessment:-

Title	Author	Dwg No.	Date
<i>Site Sections 01</i>	Green and Dale Associates	11898 A-004 [00]	11/05/2017
<i>Site Sections 02</i>	Green and Dale Associates	11898 A-004 [00]	11/05/2017
<i>Demolition Plan</i>	Green and Dale Associates	11898 A-050 [05]	11/05/2017
<i>Architectural Plans and Sections</i>	TZG Architects	A-100 to A-135	12/05/2017
<i>Tree Removal and Transplant Plan</i>	Green and Dale Associates	11898 A-600 [06]	11/05/2017
<i>Landscape Plan</i>	Green and Dale Associates	11898 A-601 [05]	11/05/2017
<i>Grading Plans 01 to 04</i>	Green and Dale Associates	11898 A-603 to A606 [05]	11/05/2017
<i>Surface Treatment Plan</i>	Green and Dale Associates	11898 A-609 [01]	11/05/2017

- 9.1.2 A summary of the impact of the proposed development on each tree within the site is shown in **Appendix 5**. The following criteria have been examined as part of this assessment:-

- Existing Relative Levels (R.L.);
- Tree Protection Zone (TPZ);
- Structural Root Zone (SRZ);
- Footprint and envelope of the proposed development and temporary structures (scaffolding, hoardings etc);
- Incursions to the TPZ & SRZ, including estimated cut & fill beyond the building footprint;
- Incursions to the tree canopy from the building envelope and temporary structures; and
- Assessment of the likely impact of the works on existing trees.

- 9.1.3 The proposed development will necessitate the removal of eighty-eight (88) trees of low and very low retention value. These include Tree No.s T457 & T458 (Sally Wattle), T432, T433, T447, T449 & T450 (Sweet Acacia), T374 (Wattle), T197 (Willow Myrtle), T53, T148a & T232 (Candlenut), T102a & T117 (Bangalow Palm), T362 (Coast Banksia), T476a (Orchid Tree), T200 & T201 (Willow Bottlebrush), T42 (Blackbean), T416, T417 & T418 (Swamp Oak), T469 (Cordyline), T390, & T392 (Grey Gum), T342 & T377 (Eucalypt), T127 (Weeping Fig), T11 & T12 (Moreton Bay Fig), T126, T149 & T177a (Crows Foot Ash), T121 & T124 (Cudgerie), T448 (American Ash), T464a (Honey Locust), T383a, T397 & T435 (Cheese Tree), T430 & T431 (Willow-leaf Hakea), T14 (Tulipwood), T437 (Jacaranda), T434 (Leopardwood), T429 (Broad Leaf Privet), T133 (Brushbox), T479a (Bracelet Honey Myrtle), T189, T190 & T199 (Broadleaved Paperbark), T100 (Murraya), T174, T175, T175b, T436a, T438, T439, T440a, T440b, T442, T443, T451 & T452 (African Olive), T419 (Queensland Pittosporum), T300b, T301, T302, T336c, T337, T359, T369, T371, T395 & T426 (Native Daphne), T478a (Frangipani), T455 (Brown Pine), T453b (row of 6 x Prickly Acacia), T142 (Chinese Tallow), T146a (Umbrella Tree) and T401,

T424 & T425 (unidentified species). None of the remaining trees are considered significant or worthy of special measures to ensure their preservation. The removal of these trees to accommodate the proposed development is considered warranted in this instance. It should be noted that Trees T174, T175, T175b, T429, T436a, T438, T439, T440a, T440b, T442, T443, T451 & T452 are exempt from the MOSIDCP 2012, being listed as Environmental Weed Species. T377, T390, T392 are being completely dead and have no habitat value.

- 9.1.4 The proposed development will also necessitate the removal of seventy-two (72) trees of moderate retention value. These include Tree No.s T51, T128, T147 & T228 (Candlenut), T43 (Red Ash), T110 & T406 (Bangalow Palm), T361 (Coast Banksia), T2 (Ivory Curl Flower), T1 (Willow Bottlebrush), T409 (River Oak), T3 & T415 (Swamp Oak), T396 (NSW Christmas Bush), T464 & T465 (Swamp Mahogany), T422 (Grey Gum), T437a (Moreton Bay Fig), T52 (Hill's Weeping Fig), T146, T173, T429b & T437b (Port Jackson Fig), T120, T132a, T132b, T134a, T141, T141a, T143, T177 & T178a (Crows Foot Ash), T51a, T148 & T156b (Cudgerie), T463 (Honey Locust), T354, T385, T440 & T479 (Cheese Tree), T175a (Tulipwood), T402 (Kentia Palm), T132 & T134 (Cabbage Tree Palm), T99 (Bullbay Magnolia), T178, (Broadleaved Paperbark), T393 (Native Daphne), T456, T459, T461a, T462 & T462a (Brown Pine), T431a (Celerywood), T458c (African Tulipwood), T458b & T477 (Giant White Bird of Paradise), T474, T476, T568, T569, T570, T573, T574, T578, T579, T580, T581 & T583 (unidentified species), T436 (Cotton Palm), T13, T40 & T41 (Weeping Lillypilly). The majority of these trees are in good health and condition and make a fair contribution to the amenity of the site. In order to compensate for loss of amenity resulting from the removal of these trees to accommodate the proposed development, consideration should be given to replacement planting within the site in accordance with Section 11. It should be noted that T99 and T396 are listed on the *Heritage and Conservation Register*. However, both of these trees have a transient SULE and are not considered worthy of preservation.
- 9.1.5 The proposed development will also necessitate the removal of thirty-six (36) trees of high retention value. These include Tree No.s. T101 (Silver Date Palm), T103 (Chinese Fan Palm), T104 (Cabbage Tree Palm), T458 (Senegal Date Palm), T454 & T461 (Dwarf Date Palm), T444 (row of 17 Sweet Acacia), T97 (Grey Gum), T98 (Bangalow Palm), T198 (Swamp Oak), T473 (Silk Floss Tree), T466 (Swamp Mahogany), T176 (Weeping Fig), T441, T555 & T556 (Small-leaf Fig), T102 (Port Jackson Fig), T478 (Cheese Tree), T458a (African Tulip Tree) and T475 (unidentified species). Several of these trees are listed on the *Heritage and Conservation Register*, including T101 (183L), T444 (273L), T454 (277L), T458 (255L), T461 (256L), T473 (271L) and T458a (251L). These trees are probably listed due to the uncommon use in Sydney and their association with the exhibits. The remaining trees have no known heritage significance, but are in good health and condition and make a positive contribution to the amenity of the site. There are no feasible options that can be implemented that would permit the retention of these trees given the design imperatives. In order to compensate for loss of amenity resulting from the removal of these trees to accommodate the proposed development, consideration should be given to replacement planting within the site in accordance with Section 11. Consideration should be given to relocating (transplanting) T101 (183L) and T458 (Senegal Date Palm) elsewhere within the site where space permits. These species are capable of being transplanted with a low risk of fatality provided that they are prepared and relocated in accordance with best practice and have an appropriate level of aftercare in the new planting locations.
- 9.1.6 A number of Aloes are proposed to be relocated (transplanted) elsewhere within the site. These include T93 & T445, T446, T466a, T467, T468 & T470 (Cape Aloe). The majority of these are listed on the *Heritage and Conservation Register*. These species are capable of being transplanted with a low risk of fatality provided that they are prepared and relocated in accordance with best practice and have an appropriate level of aftercare in the new planting locations.
- 9.1.7 Proposed new exhibit enclosure fences are located in close proximity to a number of trees, including T332, T333, T344, T346, T347, T357, T370, T373, T375a, T376, T376a, T383, T383b,

T113a, T554, T551, T549, T156, T156a & T179. Some canopy pruning of these trees (predominantly selective pruning and crown lifting) will be required to clear the fence line. Where possible, the location of the fence will be adjusted on site to minimise the extent of pruning required. This work will not result in any adverse impact on these trees, provided that all such pruning (that essential to clear the fence line) is carried out in accordance with Section 10.12.

- 9.1.8 An existing building and associated paved areas and retaining walls are proposed to be demolished within the TPZs of T471 (Hoop Pine) and T472 (Hills Fig). The new structures and pavements are proposed to be constructed in a similar position to existing structures within the TPZs. However, overall there will be a reduction in the built upon area and greater soft landscape area within the TPZs. Whilst the work will result in considerable disturbance within the TPZs, the subject trees will tolerate the changes, provided that all demolition works within the TPZs are undertaken in accordance with Section 10.5, any required fill material (to make up levels) is supplied and placed in accordance with Section 10.10 and all excavations for new pavement sub-grade, structural footings and wall foundations within the TPZs are undertaken in accordance with Section 10.6. The greater soft landscape area will be beneficial to the trees in the long term. Minor canopy pruning (crown lifting) of T472 may be required to clear the roof of the adjacent viewing deck. This work will not result in any adverse impact on this tree, provided that all such pruning (that essential to clear the structure) is carried out in accordance with Section 10.12.
- 9.1.9 The existing roadway is proposed to be widened within the TPZs of T95 (Hoop Pine) and T96 (Bullbay Magnolia). Given the existing levels, engineered fill and a fill batter will be required to construct the road widening. The extent of encroachment to the TPZ of T95 is approximately 9% of the TPZ, which is considered within acceptable limits under AS 4970:2009. The extent of encroachment to the TPZ of T96 is approximately 31% of the TPZ (part of which is occupied by the existing road), which exceeds acceptable limits. Consideration has been given to amending the position of the roadway, but given other site constraints, this is the only location where the roadway can be located. In order to minimise adverse impact on these trees, all fill material for the new road pavement within the TPZs should be supplied and placed in accordance with Section 10.10.
- 9.1.10 A new water feature and associated rip-rap rock wall is also located within the TPZ of T95 (Hoop Pine). The new water feature is located substantially within the footprint of an existing roadway and kerb. As such, the encroachment will be the same as the present situation and should not result in any adverse impact on this tree. The kerb and road pavement are likely to have inhibited root growth in this area and therefore the proposed work should not result in any actual incursion to the root zone. The proposed rip-rap wall (placement of boulders), should not result in any adverse impact on the tree, provided that the boulders are placed on top of the existing ground surface and no excavation is undertaken within the TPZ to create a foundation.
- 9.1.11 New pavements and stairs are located within the TPZs of T96 (Bullbay Magnolia). The new works are largely isolated to the footprint of existing pavements within the TPZs at a similar grade and therefore will not result in any substantial increase in encroachment from the present situation. The proposed stairs within the SRZ of T96 are an exception as due to the levels proposed. The stairs and landing will require the installation of a retaining wall and therefore excavations for a continuous strip footing and placement of engineered fill within the SRZ. Given other site constraints there are no alternative positions where the stairs can be located. This extent and proximity of excavation and the overall encroachment is likely to result in some adverse impact on this tree. In order to minimise adverse impact, consideration should be given to installation of a post and caisson type wall (with post footings rather than a continuous strip footing) and all excavations for the wall footings and pavement sub-grade should be undertaken in accordance with Section 10.6.

- 9.1.12 A new section of road is also proposed within the TPZ of T111 (Hoop Pine). The extent of encroachment to the TPZ of T111 is approximately 18% of the TPZ, which exceeds acceptable limits under AS 4970:2009. However, this species will tolerate the level of encroachment proposed, provided that all excavations for the pavement sub-grade are undertaken in accordance with Section 10.6.
- 9.1.13 The proposed Okapi Back of House area is located within the TPZs of T500 (Brushbox) and T501 (Fiddleleaf Fig). Given that the structure is located beyond an existing retaining wall (which would inhibit root growth of these trees), excavations for the building foundations will not result in any actual incursion to the root zone and therefore this work will not result in any adverse impact on these trees. Some canopy pruning will be required to clear the building. However this will not result in any adverse impact provided that any required pruning (that essential to clear the building envelope and facilitate construction) is undertaken in accordance with Section 10.12.
- 9.1.14 T131 (Fig) and T44 (Narrow Leaf Fig) are located in close proximity to proposed new pathways. The pathways have been located as best as possible to minimise adverse impact on trees and many sections are elevated and supported on piers (forming elevated walkways) to achieve the required grades and minimise encroachments to TPZs. The excavations for the new pathways have the potential to result in some root damage to these trees, leading to an adverse impact. However, Any adverse impact can be minimise by placing the pathway slightly above grade (as proposed) and undertaking all excavations for the pavement sub-grade within the TPZs in accordance with Section 10.6.
- 9.1.15 No other trees will be adversely affected by the proposed development.

10 RECOMMENDED TREE PROTECTION MEASURES

10.1 Tree Protection Plan

- 10.1.1 The following Tree Protection Measures should be read in accordance with the Tree Protection Plan (**Appendix 6**). The Tree Protection Plan (TPP) indicates the position of tree protection devices and other recommended measures to ensure the protection of trees within the site to be retained as part of the proposed development.

10.2 Prohibited Activities

- 10.2.1 The following activities should be avoided within specified Tree Protection Zones (refer **Appendix 4 & 6** for extent of the TPZ for each tree):-
- Excavations and trenching (with exception of the approved remediation works, underground services, building foundations or pavement sub-grade);
 - Soil disturbance, surface grading, compaction, tining, ripping or cultivation of soil;
 - Mechanical removal of vegetation, including extraction of tree stumps;
 - Soil level changes including the placement of fill material (excluding imported validated fill for remediation works or placement of fill for approved works)
 - Movement and storage of plant, equipment & vehicles (except within defined temporary haul roads, where ground protection has been installed, or within the footprint of existing floor slabs or paved areas);
 - Erection of site sheds (except where approved by the site arborist);
 - Affixing of signage, barricades or hoardings to trees;
 - Storage of building materials, waste and waste receptacles;
 - Stockpiling of spoil or fill;
 - Stockpiling of bulk materials, such as soil, sand, gravel, roadbase or the like;
 - Stockpiling of demolition waste;

- Disposal of waste materials and chemicals including paint, solvents, cement slurry, fuel, oil and other toxic liquids;
- Other physical damage to the trunk or root system; and
- Any other activity likely to cause damage to the tree.

10.3 Tree Protection Fencing

10.3.1 All trees within the site to be retained shall be protected prior to and during construction from all activities that may result in detrimental impact by erecting a suitable protective fence beneath the canopy to the full extent of the Tree Protection Zone, excluding the footprint of the proposed works and areas within adjoining properties, as indicated on the Tree Protection Plan. As a minimum, the fence should consist of temporary chain wire panels of 1.8 metres in height, supported by steel stakes as required and fastened together and supported to prevent sideways movement using corner braces where required. The fence shall be erected prior to the commencement of any work on-site and shall be maintained in good condition for the duration of construction. Where tree protection zones merge together a single fence encompassing the area is deemed to be adequate. Existing site boundary fences may form part of the enclosure.

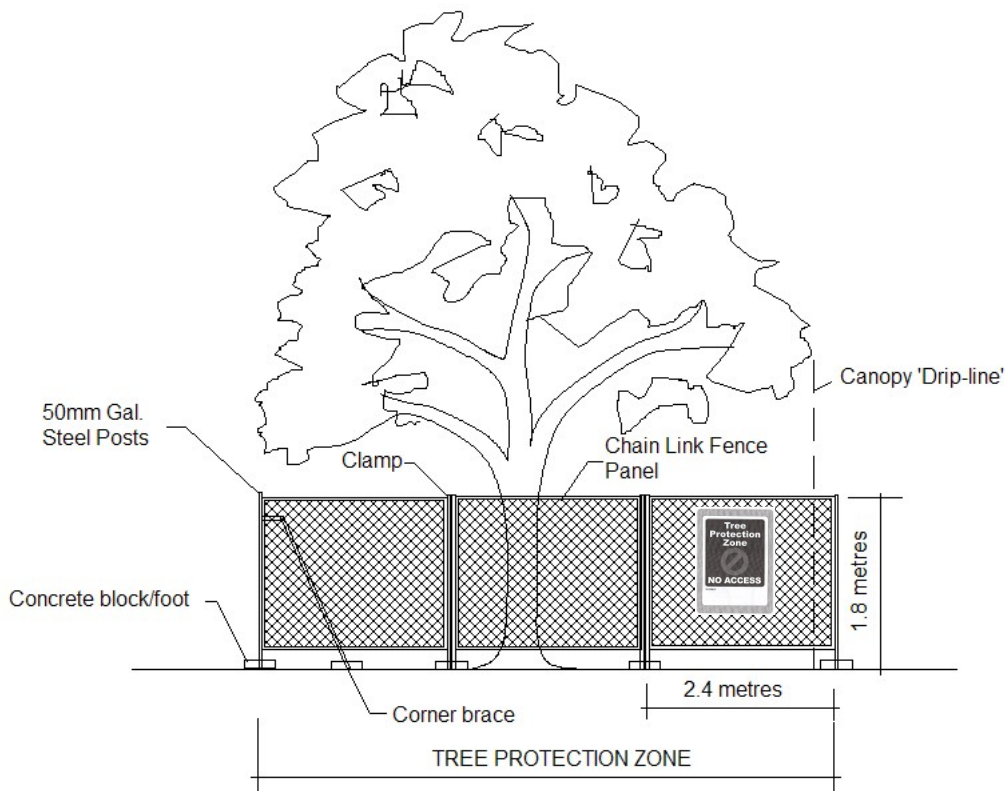


Figure 1 – Detail of Tree Protection Fence

10.3.2 Signs shall be installed on the Tree Protection Fence to prevent unauthorised movement of plant and equipment or entry to the Tree Protection Zone. The signs shall be securely attached to the fence using cable ties or equivalent. Signs shall be placed at minimum 10 metre intervals. The wording and layout of the sign shall comply with AS 4970-2009 as shown in **Figure 2**.



Figure 2 – Detail of Tree Protection Sign

10.4 Trunk Protection

- 10.4.1 Where provision of tree protection fencing is impractical due to its proximity to the proposed building footprint, trunk protection shall be erected around nominated trees to avoid accidental damage, as indicated on the Tree Protection Plan (**Appendix 6**). The trunk protection shall consist of a layer of carpet underfelt (or similar) wrapped around the trunk, followed by 1.8 metre lengths of softwood timbers (90 x 45mm in section) aligned vertically and spaced evenly around the trunk at 150mm centres (i.e. with a 50mm gap) and secured together with 2mm galvanised wire or galvanised hoop strap as shown in **Figure 3**. Recycled timber (such as demolition waste) may be suitable for this purpose, subject to the approval of the Project Arborist. The timbers shall be wrapped around the trunk (over the carpet underfelt), but not fixed to the tree to avoid mechanical injury or damage to the trunk. Trunk protection should be installed prior to any site works and maintained in good condition for the duration of the construction period. Carpet underfelt (alone) is sufficient for trees with a trunk diameter of less than 200mm.



Figure 3 – Detail of Trunk Protection

10.5 Demolition Works within Tree Protection Zones

- 10.5.1 Demolition of paved areas within the Tree Protection Zones of trees to be retained shall be undertaken under the supervision of the Site Arborist. The pavement surface and sub-base within the TPZ shall be gradually removed in layers of no greater than 50mm thick using a small rubber tracked excavator or alternative approved method to avoid damage to underlying roots and minimise disturbance and compaction of the underlying soil profile. The machine shall work within the footprint of the existing paved surfaces to avoid compaction of the underlying soil. The final layer of sub-base material shall be removed using hand tools where required to avoid compaction of the underlying soil profile and damage to woody roots.
- 10.5.2 Following removal of the pavement surface and sub-base, clean, friable topsoil shall be used to fill in the excavated area and bring flush with surrounding levels within new landscape areas. Soil shall only be imported and spread when the underlying soil conditions are dry to avoid compaction of the soil profile. Where there is insufficient recovered site topsoil for this purpose, any imported material shall be free of rocks, vegetation, heavy clay or other extraneous matter. Any imported soil material should be similar in texture to the existing site topsoil.

- 10.5.3 Demolition of existing walls, kerbs and other structures within the Tree Protection Zone of trees to be retained shall be undertaken under the supervision of the Site Arborist. The structures shall be demolished using equipment on stationed outside the TPZ where possible or within the footprint of existing hardstand areas. Care shall be taken to avoid the root systems, trunks and lower branches of trees in the vicinity of the structures during demolition works, with special attention required during demolition of the footings and other sub-surface members to avoid damage to woody roots.

10.6 Excavations within Tree Protection Zones

- 10.6.1 Prior to any mechanical excavations for building foundations or pavement sub-grade within the Tree Protection Zone of all trees nominated for retention, exploratory excavation using non-destructive techniques shall be taken along the perimeter of the structure or pavement within the TPZ. Non-destructive excavation techniques may include the use of hand-held implements, air pressure (using an Air-spade® device) or water pressure. The exploratory excavation shall be undertaken along the perimeter of the foundation or pavement (within the TPZ) to the depth of the foundation or to a maximum of 800mm from surface levels, to locate and expose any woody roots prior to any mechanical excavation. All care shall be undertaken to preserve woody roots intact and undamaged during exploratory excavation. Any roots encountered of less than 50mm in diameter may be cleanly severed with clean sharp pruning implements at the face of the excavation. The root zone in the vicinity of the excavation shall be kept moist following excavation for the duration of construction to minimise moisture stress on the tree.
- 10.6.2 Where large woody roots (greater than 50mm diameter) are encountered during exploratory excavations, further advice from a qualified arborist shall be sought prior to severance. Where necessary, (to avoid severing large woody roots) consideration should be given to the installation of an elevated structure (e.g. pier and beam footing, suspended slab or floor supported on piers, cantilevered slab, up-turned edge beam etc) in preference to structures requiring a deep edge beam or continuous perimeter strip footing. The beam section of any pier and beam footing should be placed **above** grade to avoid excavation within the SRZ. Pier footings intersecting large woody roots should be slightly offset where necessary to avoid root severance.
- 10.6.3 For masonry walls or fences it may be acceptable to delete continuous concrete strip footings and replace with suspended in-fill panels (eg steel or timber pickets, lattice etc) fixed to pillars. For paved areas, consideration should be given to raising the proposed pavement level and using a porous fill material in preference to excavation where large woody roots are found within the sub-base.

10.7 Underground Services

- 10.7.1 All proposed stormwater lines and other underground services should be located outside TPZs of trees proposed to be retained wherever possible or installed by alternative measures. Alternative measures include suspending pipelines beneath the floor of a building or structure (to avoid excavation with the TPZ), non-destructive excavation methods or Horizontal Directional Drilling (HDD). Where the installation of service lines within TPZs is unavoidable, the pipelines or conduits should be installed as follows.
- 10.7.2 Where the extent of the incursion to the root zone is less than 10% of the TPZ including any excavations for benching and shoring the trench, the pipeline or conduit may be installed by open trenching using standard construction methods (excavator or trenching machine). 10% of the TPZ is equivalent to one-third of the TPZ radius on one side (refer to **Appendix 2**). Refer to **Appendix 4** for radial distances of TPZs for each tree.
- 10.7.3 Where the extent of the incursion to the root zone exceeds 10% of the TPZ, but is outside the SRZ, non-destructive excavation methods must be adopted in accordance with **Section 10.6**. Where

large woody roots are encountered during excavation or trenching (root diameter greater than 50mm), these shall be retained intact wherever possible (e.g. by tunnelling beneath roots and inserting the pipeline or conduit beneath or re-routing the service etc). Where this is not practical and root pruning is the only alternative, proposed root pruning should be assessed by a qualified arborist [AQF 5] to evaluate the potential impact on the health and stability of the subject tree.

- 10.7.4 Excavations required for underground services within the Structural Root Zone of any tree to be retained should only be undertaken by sub-surface boring (Horizontal Directional Drilling). The Invert Level of the pipe, plus the pipe diameter, must be lower than the estimated root zone depth as specified. At this site a minimum depth of 1 metre to the invert level of the pipe is specified.

10.8 Pavements

- 10.8.1 Proposed paved areas within the Tree Protection Zone (TPZ) of trees to be retained should be placed at or slightly above grade where possible to minimise excavations within the root zone and avoid severance and damage of woody roots. The pavement sub-base material should be supplied and installed in accordance with **Section 10.10**.

10.9 Pavement Sub-base

- 10.9.1 Pavement sub-base material within TPZs of trees to be retained shall be a coarse, gap-graded material such as 20 – 50mm crushed basalt (Blue Metal) or equivalent no-fines gravel material to provide some aeration and moisture permeation to the root zone. Note that road base or crushed sandstone or other similar material containing a high percentage of fines is unacceptable for this purpose. The fill material should be consolidated using a non-vibrating roller or similar to minimise compaction of the underlying soil. A permeable geotextile may be used beneath the sub-base to prevent migration of the stone into the sub-grade and provide greater load capacity.

10.10 Placement of Fill Material

- 10.10.1 Placement of fill material within the Tree Protection Zone (TPZ) of trees to be retained should be avoided wherever possible. Where placement of fill is unavoidable, the material shall be a well-drained friable material, equivalent in texture to the existing site topsoil material. The fill should be free from rocks, vegetation and other extraneous material complying with AS 4419:2003 (*Soils for Landscaping and Garden Use*).
- 10.10.2 Plant and equipment used to place and spread fill material should be stationed outside the TPZ where possible. Where not possible, suitable ground protection should be installed in accordance with **Section 10.15** to avoid compaction of the underlying soil profile and root zone.
- 10.10.3 Fill placed within TPZs may be lightly consolidated, but shall not be compacted to engineering standards. No fill material should be placed in direct contact with the trunk.

10.11 Tree Damage

- 10.11.1 Care shall be taken when operating cranes, drilling rigs and similar equipment near trees to avoid damage to tree canopies (foliage and branches). Under no circumstances shall branches be torn-off by construction equipment. Where there is potential conflict between tree canopy and construction activities, the advice of the Site Arborist must be sought.
- 10.11.2 In the event of any tree becoming damaged for any reason during the construction period a consulting arborist [Australian Qualification Framework Level 5] shall be engaged to inspect and provide advice on any remedial action to minimise any adverse impact. Such remedial action shall be implemented as soon as practicable and certified by the arborist.

10.12 Canopy & Root Pruning

- 10.12.1 All canopy pruning work required shall be carried out in accordance with Australian Standard 4373-2007 – Pruning of Amenity Trees. All pruning work shall be carried out by a qualified and experienced arborist or tree surgeon [Australian Qualification Framework Level 3] in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998). No branches of greater than 100mm in diameter should be removed or pruned without further advice from a Consulting Arborist [Australian Qualification Framework Level 5].
- 10.12.2 Where root pruning is required, roots shall be severed with clean, sharp pruning implements and retained in a moist condition during the construction phase using Hessian material or mulch where practical. Severed roots shall be treated with a suitable root growth hormone containing the active constituents Indol-3-yl-Butric Acid (IBA) and 1-Naphthylacetic Acid (NAA) to stimulate rapid regeneration of the root system.

10.13 Tree Removal

- 10.13.1 Tree removal work shall be carried out by an experienced tree surgeon in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998). Care shall be taken to avoid damage to other trees during the felling operation.
- 10.13.2 Stumps located within the TPZs of trees to be retained shall be grubbed-out where required using a mechanical stump grinder (or by hand where less than 150mm in diameter) without damage to the root system of other trees. Where trees to be removed are within the SRZ of any trees to be retained, consideration should be given to cutting the stump close to ground level and retaining the root crown intact. Stumps within the Tree Protection Zone of other trees to be retained shall **not** be pulled out using excavation equipment or similar.

10.14 Temporary Scaffolding

- 10.14.1 Where temporary scaffolding must be erected within the TPZ of trees to be retained (as indicated in **Appendix 6**), the scaffold shall be erected in accordance with **Figure 5**. Where foliage or branches project through the scaffold and create a safety hazard, this foliage and branches shall be temporarily excluded from the inner part of the scaffold by affixing a shade cloth screen on the outside of the scaffold (refer to **Figure 5**), or alternatively temporarily tying back branches where required. The pruning or removal of branches to accommodate the scaffold should be avoided wherever possible. Suitable ground protection shall be installed beneath the scaffold as shown in **Figure 5** to prevent contamination, disturbance and compaction of the soil profile within the scaffold zone during construction.

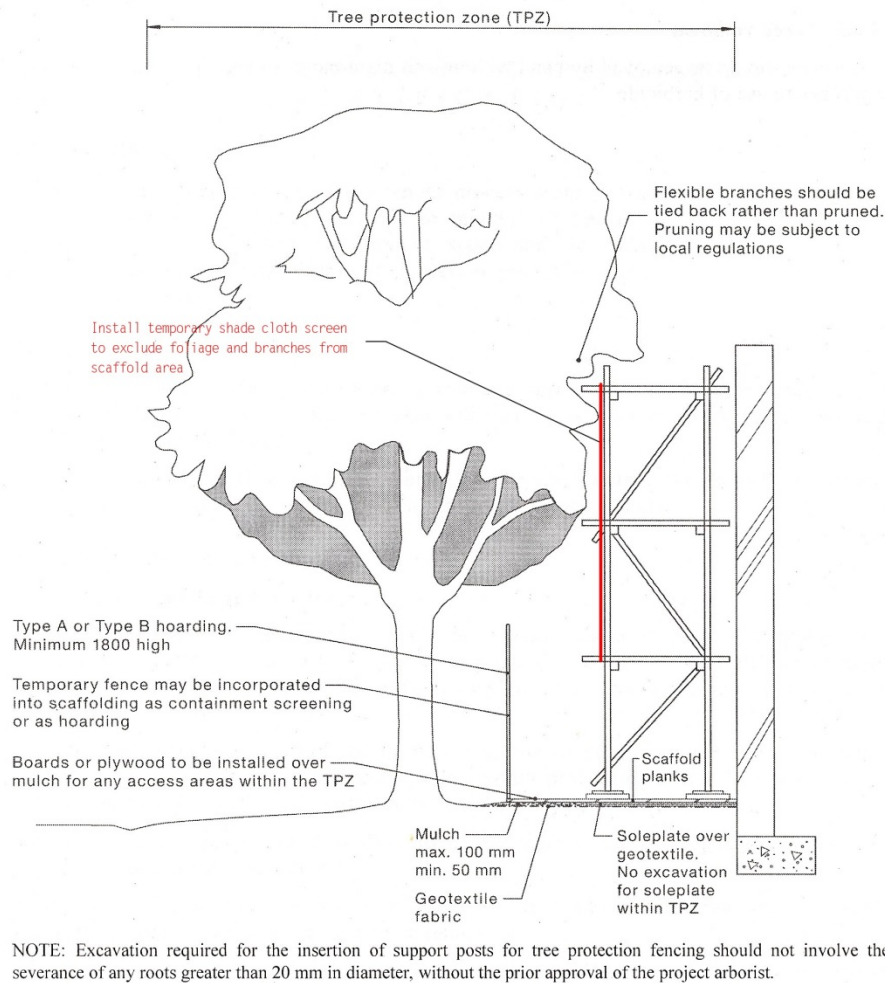


Figure 5 - Detail of Temporary scaffolding within a Tree Protection Zone

10.14.2 Where pruning or removal of branches to accommodate temporary scaffolding is unavoidable, all such pruning work shall be undertaken in accordance with **Section 10.8**.

10.15 Ground Protection

10.15.1 A 100mm layer of woodchip mulch or washed river sand shall be installed within designated areas of the Tree Protection Zone of nominated trees as indicated on the Tree Protection Plan (Appendix 7) to minimise compaction of the underlying soil profile during construction activity and haulage. A Geotextile fabric, such as Geotex® 'ST' Series manufactured by Synthetic Industries or an equivalent product, shall be installed beneath the mulch/sand layer to minimise compaction to the underlying soil profile and limit migration of mulch into the underlying soil profile. Mulch/sand shall be installed and spread by hand to avoid soil disturbance and compaction within the root zone. To minimise displacement of woodchip/sand in highly trafficked areas, 20mm thick marine ply sheets or truck mats (such as Envirex Versadeck® access mats) should be placed over the top of the woodchip/sand. Ground protection shall be installed prior to any site works and maintained in good condition for the duration of the construction period. On completion of the works, ground protection shall be removed without damage or disturbance to the underlying soil profile.

11 REPLACEMENT PLANTING

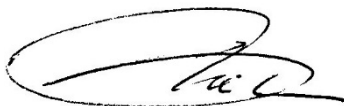
11.1.1 In order to compensate for loss of amenity resulting from the removal of trees to accommodate the proposed development, an equivalent number of trees should be planted within the site.

Replacement trees should preferably include some locally indigenous species. These will be most appropriate to the site conditions and be most valuable in terms of preserving the landscape character and wildlife habitat of the area. The following species are appropriate to the site conditions and could be considered for replacement planting:-

- *Ficus rubiginosa* (Port Jackson Fig)
- *Glochidion ferdinandi* (Cheese Tree)
- *Angophora costata* (Sydney Red Gum)
- *Corymbia gummifera* (Red Bloodwood) and
- *Eucalyptus haemastoma* (Scribbly Gum)
- *Elaeocarpus reticulatus* (Blueberry Ash).
- *Eucalyptus punctata* (Grey Gum),
- *Eucalyptus sieberi* (Silvertop Ash)
- *Eucalyptus globoidea* (White Stringybark) and
- *Banksia serrata* (Old Man Banksia)
- *Allocasuarina torulosa* (Forest Oak)

A variety of other species, particularly native rainforest trees, could also be considered for replacement planting in appropriate areas of the site. Species considered appropriate to the site conditions include

- *Backhousia citriodora* (Lemon-scented Myrtle)
- *Castanospermum australe* (Blackbean)
- *Flindersia australis* (Crows Foot Ash)
- *Stenocarpus sinuatus* (Qld Firewheel Tree)
- *Syzygium paniculatum* (Magenta Cherry)
- *Syzygium oleosum* (Blue Cherry)
- *Syzygium leuhmannii* (Small Leaf Lillypilly)
- *Waterhousea floribunda* (Weeping Lilly Pilly).
- *Elaeocarpus grandis* (Blue Quandong)
- *Elaeocarpus kirtonii*
- *Elaeocarpus eumundii*
- *Toona ciliata* (Red Cedar)
- *Ceratopetalum apetalum* (Coachwood)



Andrew Morton

EARTHSCAPE HORTICULTURAL SERVICES

6th June 2017

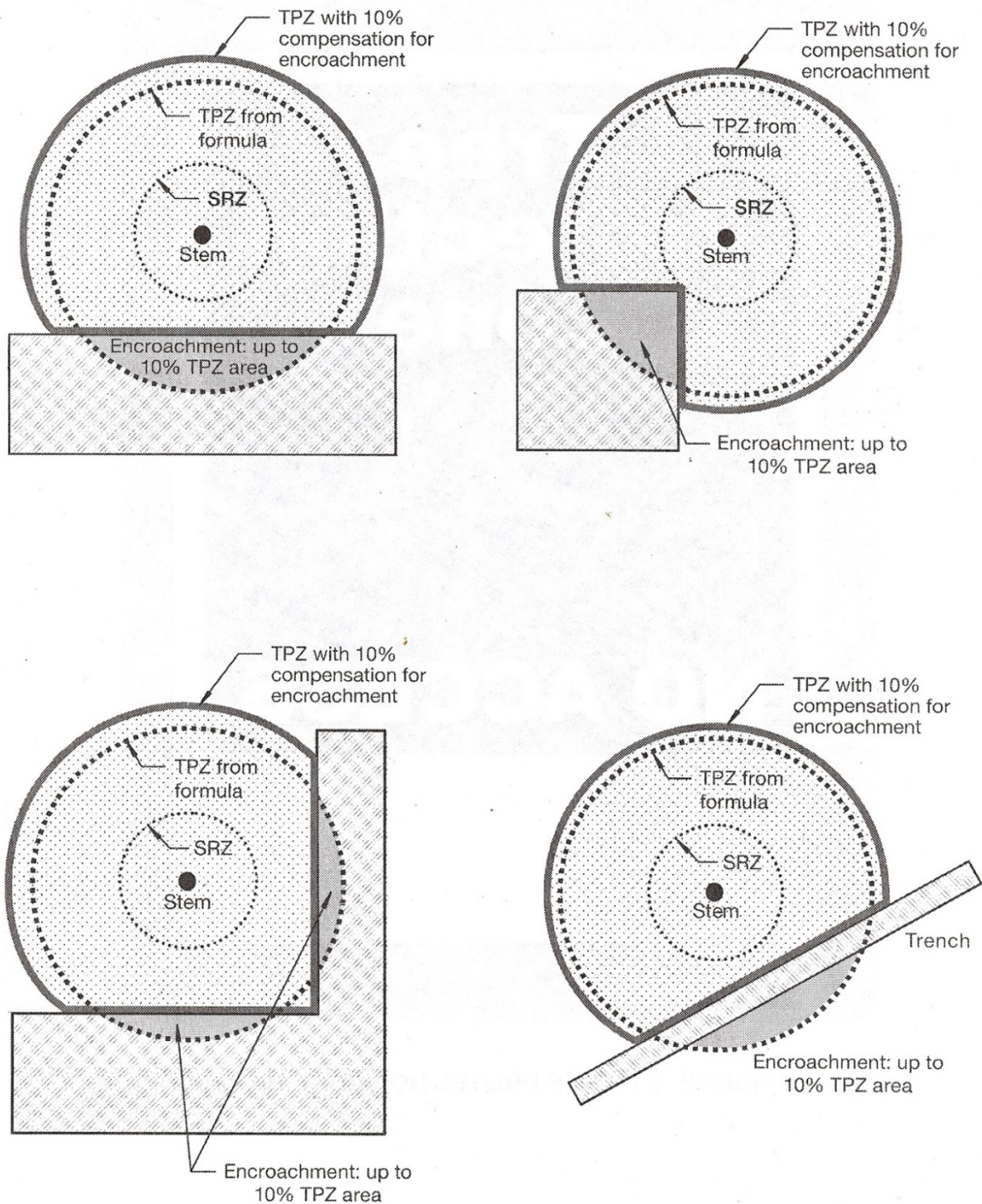
APPENDIX 1 - CRITERIA FOR ASSESSMENT OF LANDSCAPE SIGNIFICANCE

RATING	HERITAGE VALUE	ECOLOGICAL VALUE	AMENITY VALUE
1. SIGNIFICANT	The subject tree is listed as a Heritage Item under the Local Environment Plan (LEP) with a local, state or national level of significance or is listed on Council's Significant Tree Register	The subject tree is scheduled as a Threatened Species as defined under the Threatened Species Conservation Act 1995 (NSW) or the Environmental Protection and Biodiversity Conservation Act 1999	The subject tree has a very large live crown size exceeding 300m ² with normal to dense foliage cover, is located in a visually prominent position in the landscape, exhibits very good form and habit typical of the species
	The subject tree forms part of the curtilage of a Heritage Item (building /structure /artefact as defined under the LEP) and has a known or documented association with that item	The tree is a locally indigenous species, representative of the original vegetation of the area and is known as an important food, shelter or nesting tree for endangered or threatened fauna species	The subject tree makes a significant contribution to the amenity and visual character of the area by creating a sense of place or creating a sense of identity
	The subject tree is a Commemorative Planting having been planted by an important historical person (s) or to commemorate an important historical event	The subject tree is a Remnant Tree, being a tree in existence prior to development of the area	The tree is visually prominent in view from surrounding areas, being a landmark or visible from a considerable distance.
2. VERY HIGH	The tree has a strong historical association with a heritage item (building/structure/artefact/garden etc) within or adjacent the property and/or exemplifies a particular era or style of landscape design associated with the original development of the site.	The tree is a locally-indigenous species, representative of the original vegetation of the area and is a dominant or associated canopy species of an Endangered Ecological Community (EEC) formerly occurring in the area occupied by the site.	The subject tree has a very large live crown size exceeding 200m ² ; a crown density exceeding 70% (normal-dense), is a very good representative of the species in terms of its form and branching habit or is aesthetically distinctive and makes a positive contribution to the visual character and the amenity of the area
3. HIGH	The tree has a suspected historical association with a heritage item or landscape supported by anecdotal or visual evidence	The tree is a locally-indigenous species and representative of the original vegetation of the area and the tree is located within a defined Vegetation Link / Wildlife Corridor or has known wildlife habitat value	The subject tree has a large live crown size exceeding 100m ² ; The tree is a good representative of the species in terms of its form and branching habit with minor deviations from normal (e.g. crown distortion/suppression) with a crown density of at least 70% (normal); The subject tree is visible from the street and surrounding properties and makes a positive contribution to the visual character and the amenity of the area
4. MODERATE	The tree has no known or suspected historical association, but does not detract or diminish the value of the item and is sympathetic to the original era of planting.	The subject tree is a non-local native or exotic species that is protected under the provisions of this DCP.	The subject tree has a medium live crown size exceeding 40m ² ; The tree is a fair representative of the species, exhibiting moderate deviations from typical form (distortion/suppression etc) with a crown density of more than 50% (thinning to normal); and
			The tree is visible from surrounding properties, but is not visually prominent – view may be partially obscured by other vegetation or built forms. The tree makes a fair contribution to the visual character and amenity of the area.
5. LOW	The subject tree detracts from heritage values or diminishes the value of a heritage item	The subject tree is scheduled as exempt (not protected) under the provisions of this DCP due to its species, nuisance or position relative to buildings or other structures.	The subject tree has a small live crown size of less than 40m ² and can be replaced within the short term (5-10 years) with new tree planting
6. VERY LOW	The subject tree is causing significant damage to a heritage Item.	The subject tree is listed as an Environment Weed Species in the relevant Local Government Area, being invasive, or is a known nuisance species.	The subject tree is not visible from surrounding properties (visibility obscured) and makes a negligible contribution or has a negative impact on the amenity and visual character of the area. The tree is a poor representative of the species, showing significant deviations from the typical form and branching habit with a crown density of less than 50% (sparse).
7. INSIGNIFICANT	The tree is completely dead and has no visible habitat value	The tree is a declared Noxious Weed under the Noxious Weeds Act (NSW) 1993 within the relevant Local Government Area.	The tree is completely dead and represents a potential hazard.

Ref:- Morton, A (2006) **Determining the Retention Value of Trees on Development Sites**

TreeNet - Proceedings of the 7th National Street Tree Symposium 2006 Government of South Australia Department for Transport, Energy and Infrastructure

APPENDIX 2 – ACCEPTABLE INCURSIONS TO THE TREE PROTECTION ZONE (TPZ)



NOTE: Less than 10% TPZ area and outside SRZ. Any loss of TPZ compensated for elsewhere.

REF:- Council of Standards Australia (August 2009)
AS 4970 – 2009 – Protection of Trees on Development Sites
 Standards Australia, Sydney

REFERENCES:-

¹ GA Chapman & CL Murphy (1989)

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³ Mattheck, Dr. Claus & Breloer, Helge (1994) – Sixth Edition (2001)

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The Stationery Office, London, England

⁴ Barrell, Jeremy (1996)

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International Society of arboriculture, Illinois, USA

⁵ Council of Standards Australia (August 2009)

AS 4970 – 2009 – Protection of Trees on Development Sites

Standards Australia, Sydney

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
1	<i>Callistemon salignus</i> (Willow Bottlebrush)	7	6	220	33	M	Appears stable with fair branching structure. Exhibits multiple low bark inclusions at 2 metres.	No Evidence	Good	No Evidence	medium 15-40 Years	4	Moderate	On-site
2	<i>Buckinghamia celsissima</i> (Ivory Curl Flower)	5	7	242	28	M	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at 0.5 and 1.5 metres.	Crown lifted to 1.5 metres	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
3	<i>Casuarina glauca</i> (Swamp Oak)	14	10	646	120	M	Appears stable with poor branching structure. Exhibits co-dominant leaders at 1.5 metres with a high bark inclusion. Minor dieback in upper crown with 5% deadwood	Crown lifted to 3 metres	Fair with slightly thinning crown	No Evidence	medium 15-40 Years	3	Moderate	On-site
4	<i>Banksia serrata</i> (Old Man Banksia)	7	4	201	22	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
5	<i>Melaleuca liniariifolia</i> (Narrow-leaved Paperbark)	5	6	271	24	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
5a	<i>Eucalyptus crebra</i> (Narrow-leaved Ironbark)	6	2	111	6	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
6	<i>Tristaniopsis laurina</i> (Water Gum)	8	9	200 + 250 + 150	54	M	Appears stable with sound branching structure. Exhibits a prominent lean to the north-east. Crown suppressed on the north side due previous pruning.	Selectively pruned	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
7	<i>Banksia integrifolia</i> (Coast Banksia)	8	9	430	63	M	Appears stable with sound branching structure. Exhibits a prominent lean to the south-east.	Selectively pruned	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
7a	<i>Elaeocarpus reticulatus</i> (Blueberry Ash)	8	4	153	28	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
8	<i>Melaleuca decora</i> (White Feather Honey Myrtle)	6	3	175	12	SM	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	medium 15-40 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
9	<i>Elaeocarpus reticulatus</i> (Blueberry Ash)	8	5	169	35	M	Appears stable with sound branching structure. Exhibits a moderate wound at 1.2 metres due to previous branch loss.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
10	<i>Podocarpus elatus</i> (Brown Pine)	15	10	550	140	M	Appears stable with sound branching structure.	Crown lifted to 5 metres on south side	Good	No Evidence	Long - more than 40 years	1	High	On-site
11	<i>Ficus macrophylla</i> (Moreton Bay Fig)	6	7	250	28	I	Stability suspect with fair branching structure. Crown suppressed on the south side due to overshadowing. Growing upon a dimension stone wall.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
12	<i>Ficus macrophylla</i> (Moreton Bay Fig)	7	8	300x2	40	SM	Stability suspect with fair branching structure. Crown suppressed on the south side due to overshadowing. Growing upon a dimension stone wall. Large prop roots descending beside wall. High bark inclusion at ground level.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
13	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	7.5	5	166	32.5	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
14	<i>Harpulia pendula</i> (Tulipwood)	9	6	130 + 150 + 160	48	SM	Appears stable with fair branching structure. Exhibits multiple severe bark inclusions at GL	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
15	<i>Ficus macrophylla</i> (Moreton Bay Fig)	15	35	2500	455	M	Appears stable with sound branching structure. Exhibits multiple small wounds at old branch collars with small areas of decay. Extended lateral primary limbs. Large wound atop primary limb to SW with decay evident. Multiple prop roots beneath laterals	Selectively pruned	Good	Moderate fungal infection (<i>Auricularia</i> sp.) on primary limb to SW	medium 15-40 Years	1	High	On-site
16	<i>Ficus coronata</i> (Sandpaper Fig)	6	9	153	45	SM	Appears stable with sound branching structure. Crown suppressed on east side due to overshadowing	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
17	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	14	8	315	72	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
18	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	11	7	325	63	SM	Appears stable with sound branching structure. Crown suppressed on the NW side due to crowding. Low bark inclusion at 4 metres	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
21	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	5	5	274	15	M	Appears stable with sound branching structure.	Lower branches selectively pruned	Good	No Evidence	Short 5-15 Years	5	Low	On-site
22	<i>Flindersia</i> sp. <i>[schottiana]</i> (Cudgerie)	15	7	303	70	SM	Appears stable with sound branching structure. Exhibits a small wound at 0.5 metres.	Crown lifted to 4 metres	Fair with slightly thinning crown	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site
23	<i>Ficus</i> sp. <i>[obliqua]</i> (Small-leaf Fig)	13	13	500	130	M	Appears stable with sound branching structure. Large buttress, growing close to and partially over kerb.	Crown lifted to 4 metres	Good	No Evidence	Long - more than 40 years	3	High	On-site
40	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	11	7	347	42	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1.2 metres. Crown suppressed on the north side due previous pruning.	Lower branches lopped on north side to clear enclosure	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
41	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	8	5	261	30	SM	Appears stable with fair branching structure. Crown suppressed on the north side due previous pruning.	Lower branches lopped on north side to clear enclosure	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
42	<i>Castanospermum australe</i> (Blackbean)	10	4	185	32	SM	Appears stable with fair branching structure.	Lower branches lopped on north side to clear enclosure	Good	No Evidence	medium 15-40 Years	5	Low	On-site
43	<i>Alphitonia</i> sp. (Red Ash)	10	4	197	28	SM	Appears stable with sound branching structure. 20% epicormic growth	Lower branches lopped on north side to clear enclosure	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
44	<i>Ficus longifolia</i> (Narrow-leaf Fig)	12	12	369	120	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the south. Prop root emanating at 1 metre.	Crown lifted to 4 metres	Very Good	No Evidence	Long - more than 40 years	1	High	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
45	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	7	8	303	40	SM	Appears stable with sound branching structure. Located within a confined planter box.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
46	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	8	5	188	15	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
47	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	12	7	252	42	SM	Appears stable with sound branching structure.	Crown lifted to 5 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
48	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	10	10	300 + 300 + 250	60	M	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at GL. Located close to retaining wall.	Crown lifted to 5 metres	Good	No Evidence	medium 15-40 Years	4	Moderate	On-site
49	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	9	9	300	45	SM	Appears stable with sound branching structure. Located close to retaining walls	Crown lifted to 5 metres	Very Good	No Evidence	medium 15-40 Years	4	Moderate	On-site
50	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	8	6	180	18	SM	Appears stable with sound branching structure. Exhibits a slight lean to the south.	No Evidence	Fair	High foliar insect infestation	medium 15-40 Years	5	Low	On-site
51	<i>Aleurites moluccana</i> (Candlenut)	11	6	172	30	SM	Appears stable with sound branching structure.	Crown lifted to 6 metres	Good	No Evidence	medium 15-40 Years	4	Moderate	On-site
51a	<i>Flindersia</i> sp. <i>[schottiana]</i> (Cudgerie)	13	7	223	56	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	Moderate foliar insect infestation	medium 15-40 Years	4	Moderate	On-site
52	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	8	9	328	45	SM	Appears stable with fair branching structure. Located close to retaining walls	Crown lifted to 3 metres	Very Good	No Evidence	medium 15-40 Years	4	Moderate	On-site
53	<i>Aleurites moluccana</i> (Candlenut)	12	8	248	48	SM	Appears stable with sound branching structure. Located close to retaining wall. Adaptive growth on lower trunk due to contact with existing retaining wall.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
54	<i>Brachychiton discolor</i> (Queensland Lacebark)	12	7	478	42	M	Appears stable with sound branching structure. Exhibits a low bark inclusion at 6 metres. Exhibits a prominent lean to the north (self-corrected)	Crown lifted to 3 metres	Good	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
54a	<i>Harpulia pendula</i> (Tulipwood)	6	5	169	20	SM	Appears stable with fair branching structure. Adaptive growth on lower trunk due to contact with existing retaining wall.	Crown lifted to 3 metres	Very Good	No Evidence	medium 15-40 Years	5	Low	On-site
55	<i>Eucalyptus botryoides</i> (Bangalay)	16	9	400	72	M	Appears stable with sound branching structure.	No Evidence	Good	Moderate vine infestation	medium 15-40 Years	4	Moderate	On-site
55a	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	13	4	191	20	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	Moderate foliar insect infestation	medium 15-40 Years	5	Low	On-site
55b	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	12	6	226	42	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	Moderate foliar insect infestation	medium 15-40 Years	5	Low	On-site
56	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	14	6	223	54	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	High foliar insect infestation	medium 15-40 Years	4	Moderate	On-site
57	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	12	8	242	56	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	High foliar insect infestation	medium 15-40 Years	4	Moderate	On-site
71	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	13	4	169	8	SM	Appears stable with sound branching structure. Exhibits dieback in upper crown with 10% deadwood	No Evidence	Fair with thinning crown	High foliar insect infestation	Short 5-15 Years	5	Low	On-site
72	<i>Harpulia pendula</i> (Tulipwood)	11	7	150x4	63	SM	Appears stable with fair branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
73	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	14	6	236	48	SM	Appears stable with sound branching structure. Located close to existing wall & stair.	No Evidence	Fair with thinning crown	Moderate foliar insect infestation	Short 5-15 Years	4	Low	On-site
74	<i>Harpulia pendula</i> (Tulipwood)	9	9	188	72	SM	Appears stable with sound branching structure. Located close to existing wall & stair.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
75	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	14	4	197	24	SM	Appears stable with sound branching structure.	No Evidence	Fair with thinning crown	Moderate foliar insect infestation	medium 15-40 Years	4	Moderate	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
76	<i>Howea forsteriana</i> (Kentia Palm)	10	5	162	15	M	Appears stable with sound branching structure.	No Evidence	Fair	Moderate fungal infection (Palm Rust)	medium 15-40 Years	4	Moderate	On-site
77	<i>Howea forsteriana</i> (Kentia Palm)	9	6	207	18	M	Appears stable with sound branching structure.	No Evidence	Good	High fungal infection (Palm Rust)	Long - more than 40 years	5	Moderate	On-site
92	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	15	9	318	90	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	medium 15-40 Years	3	Moderate	On-site
93	<i>Phoenix sylvestris</i> (Silver Date Palm)	12	6	430	36	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site
95	<i>Araucaria cunninghamii</i> (Hoop Pine)	27	10	834	250	M	Appears stable with sound branching structure. Exhibits a prominent lean to the NE.	Selectively pruned	Good	No Evidence	Long - more than 40 years	1	High	On-site
96	<i>Magnolia grandiflora</i> (Bullbay Magnolia)	15	17	530 + 630	204	M	Appears stable with sound branching structure. Exhibits a low bark inclusion at 1 metre.	Deadwooded	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
97	<i>Eucalyptus punctata</i> (Grey Gum)	22	14	700	224	M	Appears stable with fair branching structure. Exhibits a low bark inclusion at 1.3 metres. Small cavity in branch collar at 5 metres (suspected termite damage)	Deadwooded	Good	No Evidence	Long - more than 40 years	3	High	On-site
98	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	12	5	250	20	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
99	<i>Magnolia grandiflora</i> (Bullbay Magnolia)	12	14	500x2 + 300	112	M	Appears stable with poor branching structure. Moderate cavity in PL at 2.5 metres with decay evident.	Selectively pruned & deadwooded	Fair with slightly thinning crown	No Evidence	Transient (less than 5 years)	1	Moderate	On-site
100	<i>Murraya paniculata</i> (Murraya)	7	7	150 + 100x3	42	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
101	<i>Phoenix sylvestris</i> (Silver Date Palm)	11	6	400	36	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
102	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	11	18	400x2	162	M	Appears stable with poor branching structure. Exhibits a high bark inclusion at GL.	Deadwooded	Good	No Evidence	Medium 15-40 Years	2	High	On-site
102a	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	11	5	220	30	M	Appears stable with fair branching structure. Upper crown suppressed due to crowding.	No Evidence	Good	Moderate Palm Scale infestation	Short 5-15 Years	4	Low	On-site
103	<i>Livistona chinensis</i> (Chinese Fan Palm)	12	4.5	270	22.5	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
104	<i>Livistona australis</i> (Cabbage Tree Palm)	13	4.5	300	27	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
110	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	11	4	200	12	M	Appears stable with sound branching structure. Exhibits a prominent lean to the SW.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
111	<i>Araucaria cunninghamii</i> (Hoop Pine)	23	13	1105	247	M	Appears stable with sound branching structure. Exhibits a large occluded axial spiral wound on trunk due previous lightning strike.	Crown lifted to 5 metres. Selectively pruned SE to clear cable car	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
111a	<i>Livistona australis</i> (Cabbage Tree Palm)	5	5	280	15	SM	Appears stable with sound branching structure.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
112a	<i>Livistona australis</i> (Cabbage Tree Palm)	12	4.5	280	22.5	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
113	<i>Livistona australis</i> (Cabbage Tree Palm)	5	5	303	15	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
113a	<i>Citharexylum spinosum</i> (Fiddlewood)	7	7	120 + 100x3	42	SM	Appears stable with fair branching structure.	Crown lifted to 1 metre	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
114	<i>Araucaria cunninghamii</i> (Hoop Pine)	25	11	990	253	M	Appears stable with sound branching structure. Exhibits multiple small wounds throughout crown due previous branch loss.	Selectively pruned NW side to clear cable car	Good	No Evidence	Long - more than 40 years	1	High	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
115	<i>Howea forsteriana</i> (Kentia Palm)	7	4	159	8	M	Appears stable with sound branching structure. Located beneath overhead cables (cable car).	No Evidence	Fair	Moderate Palm Scale infestation	Medium 15-40 Years	5	Low	On-site
116	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	6	4	207	12	SM	Appears stable with sound branching structure. Located beneath overhead cables (cable car).	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
117	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	5	4	166	12	I	Appears stable with sound branching structure. Located beneath overhead cables (cable car).	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
117a	<i>Nyssa sylvatica</i> (Tupelo)	6	6	166	24	SM	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 2.5 metres at junction of co-dominant leaders.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
117b	<i>Lophostemon confertus</i> (Brushbox)	6	4	131	16	I	Appears stable with sound branching structure. Exhibits multiple striations on trunk, probably due previous moisture stress.	Crown lifted to 2 metres	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
117c	<i>Glochidion ferdinandi</i> (Cheese Tree)	7	7	150 + 170	35	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 0.5 metres.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
118	<i>Araucaria cunninghamii</i> (Hoop Pine)	20	9	557	144	M	Appears stable with fair branching structure. Main leader broken out at 12 metres due previous storm damage (crown restored - elite epicormics).	Crown lifted to 4 metres. Deadwooded.	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	1	High	On-site
119	<i>Flindersia australis</i> (Crows Foot Ash)	12	8	283	72	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
120	<i>Flindersia australis</i> (Crows Foot Ash)	13	5	207	35	SM	Appears stable with fair branching structure. Exhibits multiple moderate wounds on lower trunk due to mechanical injury.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
121	<i>Flindersia schottiana</i> (Cudgerie)	14	4	252	24	SM	Appears stable with sound branching structure. Exhibits some dieback in upper crown with 10% deadwood.	Crown lifted to 3 metres	Fair with slightly thinning crown	Moderate foliar insect infestation	Medium 15-40 Years	5	Low	On-site
122	<i>Acer negundo</i> (Box Elder)	13	10	376	110	M	Appears stable with sound branching structure. Exhibits a prominent lean to the SW.	No Evidence	Good	No Evidence	Long - more than 40 years	6	Low	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
123	<i>Flindersia australis</i> (Crows Foot Ash)	14	6	258	66	SM	Appears stable with sound branching structure. Crown suppressed SE & NW due crowding.	Crown lifted to 4 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
124	<i>Flindersia schottiana</i> (Cudgerie)	15	5	245	50	SM	Appears stable with sound branching structure. Exhibits minor dieback with 5% deadwood.	Crown lifted to 3 metres	Fair with thinning crown	High foliar insect infestation	Short 5-15 Years	4	Low	On-site
125	<i>Flindersia australis</i> (Crows Foot Ash)	12	5	159	40	SM	Appears stable with poor branching structure. Exhibits a moderate wound at 0.5 metres due previous pruning with decay evident.	Previously cut to stump at 0.5 metres (crown restored).	Good	No Evidence	Short 5-15 Years	5	Low	On-site
126	<i>Flindersia australis</i> (Crows Foot Ash)	7	10	270	60	SM	Appears stable with poor branching structure. Exhibits multiple moderate wounds due previous pruning wiith multiple epicormics (80%) emanating from pruning wounds.	Lopped at 4 metres to clear overhead cables (cable car)	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
127	<i>Ficus benjamina</i> (Weeping Fig)	7	6	180x4	30	SM	Appears stable with poor branching structure. Exhibits multiple moderate wounds due previous pruning wiith multiple epicormics (80%) emanating from pruning wounds.	Lopped at 4 metres to clear overhead cables (cable car)	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
128	<i>Aleurites moluccana</i> (Candlenut)	8	6	260	48	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the SW. Multiple small wounds due previous pruning. Located close to existing retaining wall.	Selectively pruned	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
129	<i>Livistona australis</i> (Cabbage Tree Palm)	8	5	312	20	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
129a	<i>Harpulia pendula</i> (Tulipwood)	10	6	217	48	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
130	<i>Stenocarpus sinuatus</i> (Queensland Firewheel Tree)	12	4	226	20	M	Appears stable with fair branching structure. Exhibits a prominent lean to the NE. Close to existing wall (1.0 m).	Crown lifted to 6 metres	Fair	No Evidence	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
130a	<i>Harpulia pendula</i> (Tulipwood)	8	5	150	40	SM	Appears stable with sound branching structure. Exhibits a small occluded axial wounds due sunburn (increased sudden exposure due adjacent tree removal)	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
130b	<i>Flindersia schottiana</i> (Cudgerie)	10	4	102	12	I	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	5	Moderate	On-site
130c	<i>Harpulia pendula</i> (Tulipwood)	8	4	131	28	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
131	<i>Ficus sp.</i> (Fig)	14	14	446	112	M	Appears stable with fair branching structure. Exhibits multiple extended lateral primary limbs.	Selectively crown thinned & deadwooded	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
132	<i>Livistona australis</i> (Cabbage Tree Palm)	12	4	318	16	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
132a	<i>Flindersia australis</i> (Crows Foot Ash)	6	5	131	25	I	Appears stable with sound branching structure. Exhibits a prominent lean to the NE.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
132b	<i>Flindersia australis</i> (Crows Foot Ash)	6	4	137	24	I	Appears stable with sound branching structure. Exhibits a prominent lean to the NE.	Deadwooded	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
133	<i>Lophostemon confertus</i> (Brushbox)	11	6	242	36	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the NW. Crown suppressed SW side due overshadowing. Moderate dieback with 20% deadwood.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
134	<i>Livistona australis</i> (Cabbage Tree Palm)	12	4	274	20	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
134a	<i>Flindersia australis</i> (Crows Foot Ash)	13	5	172	55	SM	Appears stable with sound branching structure. Crown suppressed NW side due crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
135	<i>Flindersia australis</i> (Crows Foot Ash)	12	6	175	48	SM	Appears stable with sound branching structure. Crown suppressed NE & SW side due crowding.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
136	<i>Flindersia schottiana</i> (Cudgerie)	15	6	191	30	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site
137	<i>Harpulia pendula</i> (Tulipwood)	10	5	197	35	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
138	<i>Harpulia pendula</i> (Tulipwood)	11	5	220	40	SM	Appears stable with fair branching structure. Crown suppressed SW side due crowding. Exhibits a moderate bark inclusion at 1.2 metres. Multiple small wounds to SLs due mechanical injuries	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
139	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	11	8	312	64	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate Possum defoliation	Long - more than 40 years	4	Moderate	On-site
140	<i>Flindersia schottiana</i> (Cudgerie)	13	9	315	45	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site
141	<i>Flindersia australis</i> (Crows Foot Ash)	11	6	204	60	SM	Appears stable with sound branching structure. Crown suppressed SE side due crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
141a	<i>Flindersia australis</i> (Crows Foot Ash)	10	4	143	32	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
142	<i>Sapium sebiferum</i> (Chinese Tallow tree)	11	4	229	16	M	Appears stable with fair branching structure. Crown suppressed SE side due crowding.	Deadwooded	Fair	Low Possum defoliation	Short 5-15 Years	5	Low	On-site
143	<i>Flindersia australis</i> (Crows Foot Ash)	13	8	274	80	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
144	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	6	6	175	24	I	Appears stable with fair branching structure. Exhibits a moderate wound to PL due mechanical injury.	PL lopped.	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
145	<i>Flindersia australis</i> (Crows Foot Ash)	12	8	229	80	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the north.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
146	<i>Ficus rubiginosa</i> (Port Jackson Fig)	9	10	379	60	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the west.	Deadwooded	Fair	No Evidence	Medium 15-40 Years	4	Moderate	On-site
146a	<i>Schefflera sp.</i> (Umbrella Tree)	9	4	175	16	I	Appears stable with poor branching structure. Exhibits a prominent lean to the NE, conflicting leader.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
147	<i>Aleurites moluccana</i> (Candlenut)	13	4	290	32	SM	Stability suspect with sound branching structure. Exhibits a very prominent lean to the SE (self-corrected), root plate partially exposed.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
148	<i>Flindersia schottiana</i> (Cudgerie)	15	6	261	48	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site
148a	<i>Aleurites moluccana</i> (Candlenut)	7	5	185	15	I	Appears stable with fair branching structure. Crown suppressed SE side due overshadowing with distorted leader.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
149	<i>Flindersia australis</i> (Crows Foot Ash)	8	4	160	16	I	Appears stable with sound branching structure. Located within confined planter box.	Crown lifted to 3 metres	Good	No Evidence	Short 5-15 Years	5	Low	On-site
150	<i>Ficus rubiginosa</i> (Port Jackson Fig)	12	9	300x2 + 400 + 250	90	SM	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at GL. Located within confined planter box.	Selectively pruned & deadwooded	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
151	<i>Ficus rubiginosa</i> (Port Jackson Fig)	13	14	471	154	M	Appears stable with fair branching structure. Crown suppressed NE side due overshadowing. Moderate bark inclusion at 2 metres at junction of co-dominant PLs.	Deadwooded	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
152	<i>Flindersia schottiana</i> (Cudgerie)	15	7	357	49	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
153	<i>Flindersia australis</i> (Crows Foot Ash)	7	4	156	12	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
154	<i>Flindersia australis</i> (Crows Foot Ash)	6	8	159	40	I	Appears stable with fair branching structure. Upper crown suppressed on the NW side due to overshadowing.	Selectively pruned to clear pedestrian access	Good	No Evidence	Short 5-15 Years	5	Low	On-site
155	<i>Flindersia schottiana</i> (Cudgerie)	12	7	100x8	49	SM	Appears stable with poor branching structure. Exhibits multiple elite epicormic sprouts arising from old stump.	Previously cut to GL	Good	Low foliar insect infestation	Short 5-15 Years	4	Low	On-site
155a	<i>Alphitonia sp.</i> (Red Ash)	7	5	121	30	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
155b	<i>Alphitonia sp.</i> (Red Ash)	8	5	137	30	I	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
155c	<i>Flindersia schottiana</i> (Cudgerie)	11	5	162	25	I	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	5	Moderate	On-site
156	<i>Flindersia schottiana</i> (Cudgerie)	13	7	223	42	SM	Appears stable with sound branching structure.	No Evidence	Good	High foliar insect infestation	Medium 15-40 Years	4	Moderate	On-site
156a	<i>Michelia champaca</i> (Golden Champa)	8	4	159	24	SM	Appears stable with poor branching structure. Exhibits a large axial wound due to sunburn.	Crown lifted to 3 metres	Fair	High borer infestation	Short 5-15 Years	5	Low	On-site
156b	<i>Flindersia schottiana</i> (Cudgerie)	13	7	239	56	SM	Appears stable with fair branching structure. Exhibits a large axial wound from 4-6 metres due to sunburn.	Crown lifted to 3 metres	Good	Moderate foliar insect infestation	Medium 15-40 Years	4	Moderate	On-site
157	<i>Ficus religiosa</i> (Sacred Fig)	11	13	400 + 300	117	M	Appears stable with fair branching structure. Exhibits a high bark inclusion at 0.5 metres.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
157a	<i>Alphitonia sp.</i> (Red Ash)	8	5	130x2	30	I	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 0.5 metres.	Crown lifted to 2 metres	Very Good	No Evidence	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
158	<i>Ficus benjamina</i> (Weeping Fig)	12	8	260 + 120x2	80	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at GL.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
159	<i>Flindersia schottiana</i> (Cudgerie)	15	9	373	63	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site
160	<i>Flindersia schottiana</i> (Cudgerie)	14	8	252	72	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	4	Moderate	On-site
160a	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	8	3	191	6	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
161	<i>Flindersia australis</i> (Crows Foot Ash)	12	5	213	40	SM	Appears stable with sound branching structure. Located close to an existing retaining wall.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
162	<i>Flindersia schottiana</i> (Cudgerie)	14	6	223	36	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation	Long - more than 40 years	5	Moderate	On-site
163	<i>Toona ciliata</i> (Red Cedar)	10	6	146	48	I	Appears stable with fair branching structure. Prominent lean to the NW. Crown suppressed on the SE due to crowding.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
164	<i>Harpulia pendula</i> (Tulipwood)	7	7	162	49	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
165	<i>Flindersia schottiana</i> (Cudgerie)	14	6	280	30	SM	Appears stable with fair branching structure. Located close to an existing retaining wall. Prominent lean to the SE (self-corrected).	No Evidence	Good	Moderate foliar insect infestation	Medium 15-40 Years	4	Moderate	On-site
165a	<i>Flindersia australis</i> (Crows Foot Ash)	13	5	188	30	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
165b	<i>Flindersia australis</i> (Crows Foot Ash)	8	5	137	25	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
166	<i>Flindersia schottiana</i> (Cudgerie)	15	7	271	35	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
166a	<i>Flindersia australis</i> (Crows Foot Ash)	10	4	131	32	I	Appears stable with sound branching structure.	No Evidence	Very Good	Moderate foliar insect infestation	Long - more than 40 years	5	Moderate	On-site
167	<i>Flindersia australis</i> (Crows Foot Ash)	13	6	223	48	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 4 metres.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
168	<i>Olea europaea subsp. africana</i> (African Olive)	9	10	180x2	70	M	Appears stable with fair branching structure. Located close to an existing retaining wall. Crown suppressed SW side due to overshadowing.	No Evidence	Fair	No Evidence	Short 5-15 Years	6	Very Low	On-site
169	<i>Flindersia australis</i> (Crows Foot Ash)	12	3	166	12	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
169a	<i>Flindersia australis</i> (Crows Foot Ash)	10	3	102	21	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
170	<i>Flindersia australis</i> (Crows Foot Ash)	13	4	194	20	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
171	<i>Flindersia australis</i> (Crows Foot Ash)	12	3	156	15	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
172	<i>Flindersia australis</i> (Crows Foot Ash)	12	6	248	54	SM	Appears stable with sound branching structure. Crown suppressed SE side due crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
173	<i>Ficus rubiginosa</i> (Port Jackson Fig)	12	12	340 + 240 + 220 + 150	96	M	Stability suspect with fair branching structure. Growing on edge/face of retaining wall. Exhibits multiple moderate bark inclusions at GL.	Deadwooded	Very Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
174	<i>Olea europaea subsp. africana</i> (African Olive)	10	5	197	40	M	Appears stable with fair branching structure. Exhibits moderate dieback with 30% deadwood.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	6	Very Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
175	<i>Olea europaea subsp. africana</i> (African Olive)	9	9	223	63	M	Stability suspect with fair branching structure. Exhibits moderate dieback with 30% deadwood. Very prominent lean to the NE.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	6	Very Low	On-site
175a	<i>Harpulia pendula</i> (Tulipwood)	7	6	245	42	SM	Appears stable with sound branching structure. Located within a confined planter box.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
175b	<i>Olea europaea subsp. africana</i> (African Olive)	7	5	156	25	SM	Appears stable with poor branching structure. Located close to an adjacent retaining wall.	No Evidence	Good	No Evidence	Transient (less than 5 years)	6	Very Low	On-site
176	<i>Ficus benjamina</i> (Weeping Fig)	12	14	200 + 400	112	M	Appears stable with fair branching structure. Exhibits a high bark inclusion at 0.7 metres.	Selectively pruned & deadwooded	Good	No Evidence	Long - more than 40 years	3	High	On-site
177	<i>Flindersia australis</i> (Crows Foot Ash)	12	5	229	50	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 2 metres.	Crown lifted to 2 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
177a	<i>Flindersia australis</i> (Crows Foot Ash)	12	4	140	36	I	Appears stable with fair branching structure. Upper crown suppressed due to overshadowing.	Crown lifted to 3 metres	Very Good	No Evidence	Short 5-15 Years	5	Low	On-site
178	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	12	10	600	70	M	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at 1-2 metres at junctions of PLs.	No Evidence	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
178a	<i>Flindersia australis</i> (Crows Foot Ash)	9	6	201	36	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
178b	<i>Flindersia australis</i> (Crows Foot Ash)	9	4	185	32	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
179	<i>Ficus coronata</i> (Sandpaper Fig)	6	5	194	25	SM	Appears stable with fair branching structure. Exhibits a low bark inclusion at 1 metre.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
180	<i>Schefflera arboricola</i> (Umbrella Plant)	5	7	150x3	35	M	Appears stable with fair branching structure. Exhibits a prominent lean to the NE.	No Evidence	Very Good	No Evidence	Long - more than 40 years	6	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
181	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	10	4	217	4	M	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation (Scale)	Medium 15-40 Years	5	Low	On-site
181a	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	9	5	150x3	15	M	Appears stable with fair branching structure. Multi-trunked with 3 x co-dominant leaders.	No Evidence	Good	Moderate foliar insect infestation (Scale)	Short 5-15 Years	4	Low	On-site
181b	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	10	4	130 + 200	12	M	Appears stable with fair branching structure. Twin-trunked with 2 x co-dominant leaders. Some crown damage, possibly due to Ibis roosting.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
181c	<i>Unidentified sp</i> (Curly pods)	5	5	153	20	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
181d	<i>Unidentified sp</i> (Curly pods)	9	4	159	24	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
181e	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	7	3	182	9	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Fair	Moderate foliar insect infestation (Scale)	Medium 15-40 Years	5	Low	On-site
182	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	14	9	650	99	M	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at 1-2 metres. Growing on shallow soil over rock.	No Evidence	Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
182a	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	10	5	303	40	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1.2 metres. Crown suppressed on the east & west side due crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
183	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	8	6	188	24	SM	Appears stable with poor branching structure. Prominent lean to the SE. Poor form and habit. Upper crown suppressed (NW) due overshadowing.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
183a	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	7	3.5	134	17.5	I	Appears stable with fair branching structure.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
184	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	10	6	350	42	M	Appears stable with sound branching structure. Upper crown suppressed (NE) due overshadowing.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
185	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	12	6	398	60	M	Appears stable with sound branching structure. Crown suppressed on the east side due crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
186	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	11	8	354	76	M	Appears stable with sound branching structure. Crown suppressed on the north side due crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
187	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	11	9	500	81	M	Appears stable with sound branching structure. Crown suppressed on the north side due crowding.	No Evidence	Fair	No Evidence	Medium 15-40 Years	4	Moderate	On-site
188	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	9	8	382	48	M	Appears stable with sound branching structure. Exhibits a prominent lean to the NW. Crown suppressed on the SE side due to crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
189	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	5	7	201	14	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the NW. Crown suppressed on the SE side due to crowding. Poor form and habit. High bark inclusion at 0.7 metres.	Crown lifted to 3 metres	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
190	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	5	8	270	24	SM	Appears stable with fair branching structure. Upper canopy suppressed due to overshadowing. Poor form and habit.	Crown lifted to 2 metres	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
191	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	13	5	414	45	M	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 1.5 metres at junction of co-dominant primary limbs.	Crown lifted to 3 metres	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
192	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	11	6	398	54	M	Appears stable with fair branching structure. Crown suppressed on the east side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
193	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	9	5	229	35	SM	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 2 metres with fracture at junction.	No Evidence	Fair with slightly thinning crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
194	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	13	8	500	80	M	Appears stable with fair branching structure. Crown suppressed on west side due crowding. Moderate bark inclusion at 1.5 metres at junction of co-dominant PLs.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
195	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	9	3	178	15	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the north. Crown suppressed on the south side due overshadowing.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
196	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	13	6	260 + 400	66	M	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at 0.5-1.5 metres at junctions of PLs.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
197	<i>Agonis flexuosa</i> (WA Willow Myrtle)	7	6	250	36	SM	Appears stable with fair branching structure. Exhibits moderate dieback with 30% deadwood and 20% epicormic growth.	Selectively pruned.	Fair with thinning crown	No Evidence	Transient (less than 5 years)	5	Low	On-site
198	<i>Casuarina glauca</i> (Swamp Oak)	15	9	417	117	M	Appears stable with sound branching structure. Exhibits a prominent lean to the NW (self-corrected). Located close to existing stairs.	Crown lifted to 2 metres	Good	No Evidence	Long - more than 40 years	3	High	On-site
199	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	6	6	242	30	SM	Appears stable with fair branching structure.	SLs & TIs lopped at 4-5 metres to clear overhead cables (cable car)	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
200	<i>Callistemon salignus</i> (Willow Bottlebrush)	5.5	5	270	20	M	Appears stable with sound branching structure. Crown suppressed on NW side due to overshadowing.	SLs & TIs lopped at 4-5 metres to clear overhead cables (cable car)	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
201	<i>Callistemon salignus</i> (Willow Bottlebrush)	7	5	320	25	M	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 1.5 metres.	No Evidence	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
220	<i>Livistona australis</i> (Cabbage Tree Palm)	12	4	250	16	M	Appears stable with fair branching structure. Exhibits a very prominent lean to the NE (self corrected).	No Evidence	Good	No Evidence	Short 5-15 Years	3	Moderate	On-site
221	<i>Livistona chinensis</i> (Chinese Fan Palm)	8	4	250	8	M	Appears stable with fair branching structure. Exhibits a prominent lean to the NE. Crown suppressed on the SW side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
222	<i>Waterhousea floribunda</i> (Weeping Lillypilly)	15	15	300x3	165	M	Appears stable with fair branching structure. Exhibits a high bark inclusion at 1.5 metres at junction of PLs.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
223	<i>Livistona australis</i> (Cabbage Tree Palm)	6	5	200	20	SM	Appears stable with sound branching structure. Upper canopy suppressed due to overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
224	<i>Livistona chinensis</i> (Chinese Fan Palm)	8	5	270	15	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
225	<i>Livistona australis</i> (Cabbage Tree Palm)	6	5	300	15	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
226	<i>Livistona chinensis</i> (Chinese Fan Palm)	7	5	270	15	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
227	<i>Livistona australis</i> (Cabbage Tree Palm)	6	5	250	20	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
228	<i>Aleurites moluccana</i> (Candlenut)	13	8	280	104	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the NE. High bark inclusion at 1.8 metres. Limited root plate.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
229	<i>Ficus obliqua</i> (Small-leaf Fig)	12	9	300x2	63	M	Appears stable with poor branching structure. Exhibits multiple moderate wounds due previous pruning. Poor form and habit.	Lopped to clear overhead cables (cable car)	Good	No Evidence	Short 5-15 Years	4	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
230	<i>Aleurites moluccana</i> (Candlenut)	16	7	350	70	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
231	<i>Ficus sp.</i> (Fig)	12	8	230	72	SM	Appears stable with sound branching structure.	Deadwooded	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
232	<i>Aleurites moluccana</i> (Candlenut)	13	8	220	72	SM	Stability suspect with poor branching structure. Exhibits a very prominent lean to the NE. Root plate lifted. High bark inclusion at 5 metres.	No Evidence	Very Good	No Evidence	Transient (less than 5 years)	4	Low	On-site
233	<i>Ficus sp.</i> (Fig)	15	5	220	35	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
300	<i>Phoenix canariensis</i> (Canary Island Palm)	6	8	600	48	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	6	Low	On-site
300a	<i>Pittosporum undulatum</i> (Native Daphne)	5	4	150	20	SM	Appears stable with poor branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	No Evidence	Fair with slightly thinning crown	High Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
300b	<i>Pittosporum undulatum</i> (Native Daphne)	6	5	220	20	M	Appears stable with fair branching structure.	Selectively pruned.	Fair	Low Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
301	<i>Pittosporum undulatum</i> (Native Daphne)	5	5	182	15	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	Selectively pruned.	Fair	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
302	<i>Pittosporum undulatum</i> (Native Daphne)	5	4	159	20	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	Selectively pruned.	Fair	Low Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
303	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	5	4	100 + 150	20	I	Stability suspect with poor branching structure. Exhibits a very prominent lean to the west. Root plate partially exposed and uplifted. Epicormics arising veritically from near horizontal trunk.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	5	Very Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
304	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	10	7	299	56	SM	Appears stable with sound branching structure. Located in close proximity to T305.	No Evidence	Very Good	Low foliar insect infestation	Medium 15-40 Years	4	Moderate	On-site
305	<i>Eucalyptus maidenii</i> (Maiden's Gum)	15	16	570x2	160	M	Appears stable with sound branching structure. Multiple small wounds due to previous pruning. Small wound and cavity in branch collar.	Selectively pruned to clear vehicular traffic.	Good	Moderate Termite infestation	Medium 15-40 Years	3	Moderate	On-site
306	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	13	15	446	165	M	Appears stable with sound branching structure.	No Evidence	Very Good	Low Fig Psyllid infestation	Long - more than 40 years	3	High	On-site
307	<i>Eucalyptus maidenii</i> (Maiden's Gum)	15	14	650	154	M	Appears stable with fair branching structure. Exhibits a moderate wound at 3 & 5 metres in PLs. Some dieback with 10% deadwood.	Selectively pruned.	Fair with slightly thinning crown	Low borer infestation.	Medium 15-40 Years	3	Moderate	On-site
307a	<i>Syzygium paniculatum</i> (Magenta Cherry)	5	2	60	10	I	Appears stable with sound branching structure.	No Evidence	Good	Low foliar insect infestation	Medium 15-40 Years	5	Low	On-site
308	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	16	18	850	252	M	Appears stable with sound branching structure. Located close to an existing retaining wall.	Selectively pruned.	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
309	<i>Strelitzia nicolai</i> (Giant White Bird of Paradise)	5	3	150	15	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
310	<i>Eucalyptus punctata</i> (Grey Gum)	17	14	500	154	M	Appears stable with poor branching structure. Exhibits a severe bark inclusion at 5 metres at junction of co-dominant PLs.	No Evidence	Good	Low borer infestation.	Medium 15-40 Years	3	Moderate	On-site
311	<i>Eucalyptus punctata</i> (Grey Gum)	10	6	250	24	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the NW. Crown suppressed on east side due to overshadowing.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
312	<i>Hibiscus tiliaceus</i> (Coastal Cottonwood)	6	7	70x8	42	SM	Appears stable with poor branching structure. Exhibits multiple epicormic sprouts due to previous pruning.	Recurrently lopped for stock feed.	Very Good	No Evidence	Short 5-15 Years	6	Very Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
313	<i>Polyscias elegans</i> (Celery Wood)	7	4	200	12	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
314	<i>Pittosporum undulatum</i> (Native Daphne)	4	4	150	8	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due to borer damage resulting in branch loss.	No Evidence	Poor with sparse crown	Moderate Pittosporum Borer infestation. Moderate Possum defoliation.	Transient (less than 5 years)	5	Very Low	On-site
315	<i>Pittosporum undulatum</i> (Native Daphne)	5	4	120	12	SM	Appears stable with fair branching structure.	No Evidence	Fair with slightly thinning crown	Moderate Pittosporum Borer infestation.	Transient (less than 5 years)	5	Very Low	On-site
316	<i>Pittosporum undulatum</i> (Native Daphne)	5	5	150	15	SM	Appears stable with fair branching structure.	No Evidence	Fair with slightly thinning crown	Moderate Pittosporum Borer infestation.	Transient (less than 5 years)	5	Very Low	On-site
317	<i>Pittosporum undulatum</i> (Native Daphne)	5	5	170	20	SM	Appears stable with sound branching structure.	No Evidence	Fair	Moderate Possum defoliation.	Short 5-15 Years	5	Low	On-site
318	<i>Celtis sinensis</i> (Chinese Hackberry)	7	5	100x3	25	I	Appears stable with fair branching structure.	Previously cut to GL	Good	No Evidence	Long - more than 40 years	7	Very Low	On-site
318a	<i>Phoenix canariensis</i> (Canary Island Palm)	5	7	600	35	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	6	Low	On-site
319	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	12	12	470	120	M	Appears stable with sound branching structure. Located close to sandstone rock face and roadway.	Crown lifted to 4 metres	Good	No Evidence	Long - more than 40 years	3	High	On-site
319a	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	12	6	320	54	M	Appears stable with sound branching structure. Located close to sandstone rock face and roadway. Crown suppressed on SW side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
319b	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	14	10	320x2	100	M	Appears stable with sound branching structure. Located close to sandstone rock face and roadway. Crown suppressed on NE side due to crowding.	Crown lifted to 3 metres	Very Good	No Evidence	Medium 15-40 Years	3	Moderate	On-site
320	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	6	4	180	12	SM	Appears stable with sound branching structure. Located close to sandstone rock face and roadway. Crown suppressed on NE side due to overshadowing.	Crown lifted to 3 metres	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
321	<i>Glochidion ferdinandi</i> (Cheese Tree)	6	5	200	15	SM	Appears stable with sound branching structure. Located close to sandstone rock face and roadway.	Crown lifted to 2 metres	Good	Moderate foliar insect infestation (leaf miner)	Medium 15-40 Years	5	Low	On-site
322	<i>Eucalyptus robusta</i> (Swamp Mahogany)	9	6	210	18	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the north. Crown suppressed on south side due to overshadowing.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
323	<i>Eucalyptus microcorys</i> (Tallowwood)	18	15	653	180	M	Appears stable with sound branching structure.	Selectively pruned & deadwooded	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
324	<i>Celtis sinensis</i> (Chinese Hackberry)	14	13	300x2	156	M	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL. Prominent lean to the north Crown suppressed on south side.	Selectively pruned.	Good	No Evidence	Medium 15-40 Years	7	Very Low	On-site
325	<i>Eucalyptus maidenii</i> (Maiden's Gum)	15	13	700	130	M	Stability suspect with fair branching structure. Exhibits a very prominent lean to north over building/enclosure.	No Evidence	Fair with slightly thinning crown	No Evidence	Transient (less than 5 years)	3	Low	On-site
326	<i>Morus nigra</i> (Mulberry tree)	7	5	220	25	SM	Appears stable with poor branching structure. Exhibits a moderate basal cavity.	No Evidence	Fair with thinning crown	Low Possum defoliation	Transient (less than 5 years)	6	Very Low	On-site
327	<i>Eucalyptus microcorys</i> (Tallowwood)	11	8	373	56	SM	Appears stable with fair branching structure. Poor form and habit (contorted).	Selectively pruned.	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
328	<i>Eucalyptus sp.</i> (Eucalypt)	6	4	600	0	OM	Stability suspect with poor branching structure. Decay evident.	All PLs lopped	Dead	Severe borer infestation	Nil	7	Very Low	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
329	<i>Phoenix canariensis</i> (Canary Island Palm)	8	6	600	30	M	Stability suspect with sound branching structure. Exhibits a very prominent lean to the NW (self-corrected).	No Evidence	Good	No Evidence	Short 5-15 Years	6	Very Low	On-site
329a	<i>Phoenix canariensis</i> (Canary Island Palm)	9	7	600	35	M	Stability suspect with sound branching structure. Exhibits a very prominent lean to the NW (self-corrected).	No Evidence	Good	No Evidence	Short 5-15 Years	6	Very Low	On-site
330	<i>Eucalyptus botryoides</i> (Bangalay)	16	10	452	90	M	Appears stable with fair branching structure. Crown suppressed on east side due crowding. Moderate dieback in upper crown with 20% deadwood & multiple dead stubs.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
331	<i>Eucalyptus robusta</i> (Swamp Mahogany)	7	5	264	20	SM	Appears stable with poor branching structure. Exhibits a large axial wound and cavity from GL to 3 metres.	Deadwooded	Fair with thinning crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
332	<i>Eucalyptus robusta</i> (Swamp Mahogany)	17	7	338	70	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
333	<i>Eucalyptus robusta</i> (Swamp Mahogany)	15	7	389	63	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
334	<i>Eucalyptus microcorys</i> (Tallowwood)	9	5	201	35	SM	Appears stable with fair branching structure. Exhibits some dieback (including main leader) with 15% deadwood. Crown suppressed on west side due overshadowing. Growing on shallow soil over rock.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
335	<i>Pittosporum undulatum</i> (Native Daphne)	8	5	180	40	SM	Appears stable with sound branching structure. Grown on rock outcrop.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
336	<i>Eucalyptus robusta</i> (Swamp Mahogany)	15	14	497	140	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
336a	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	9	9	330	81	SM	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1.5 metres. Prominent lean to the east. Growing on rock shelf.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
336b	<i>Pittosporum undulatum</i> (Native Daphne)	6	4	150x2 +100	24	SM	Appears stable with poor branching structure. Exhibits multiple small wounds due to borer damage resulting in branch loss with decay evident.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
336c	<i>Pittosporum undulatum</i> (Native Daphne)	5	4	150	20	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the north.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
336d	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	8	14	600	84	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
337	<i>Pittosporum undulatum</i> (Native Daphne)	5	6	300	30	M	Appears stable with fair branching structure.	No Evidence	Fair with slightly thinning crown	High vine infestation (Monstera)	Short 5-15 Years	4	Low	On-site
338	<i>Glochidion ferdinandi</i> (Cheese Tree)	5	8	200 + 150 + 100x3	24	M	Appears stable with fair branching structure.	Deadwooded	Good	Moderate foliar insect infestation	Medium 15-40 Years	4	Moderate	On-site
339	<i>Pittosporum undulatum</i> (Native Daphne)	6	5	270	25	M	Stability suspect with fair branching structure. Growing within cleft in rock. Prominent lean to the west.	No Evidence	fair	No Evidence	Short 5-15 Years	5	Low	On-site
340	<i>Ficus rubiginosa</i> (Port Jackson Fig)	6	9	200x4	45	SM	Stability suspect with poor branching structure. Growing on cliff face. Multiple wounds at GL with decay evident.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
341	<i>Ficus rubiginosa</i> (Port Jackson Fig)	5	5	200	20	I	Stability suspect with fair branching structure. Crown suppressed west side due to crowding.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
342	<i>Eucalyptus sp.</i> (Eucalypt)	8	2	318	0	OM	Stability suspect with poor branching structure. Exhibits substantial decay in lower trunk.	No Evidence	Dead	No Evidence	Nil	7	Very Low	On-site
343	<i>Pittosporum undulatum</i> (Native Daphne)	9	6	322	42	M	Appears stable with sound branching structure. Exhibits some dieback with 20% deadwood.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
344	<i>Lophostemon confertus</i> (Brushbox)	13	10	424	100	M	Appears stable with sound branching structure. Poor form and habit with contorted leader and PLs.	Selectively crown thinned & deadwooded	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	3	Moderate	On-site
345	<i>Pittosporum undulatum</i> (Native Daphne)	7	8	325	48	M	Stability suspect with fair branching structure. Growing on edge of rock.	No Evidence	Fair	No Evidence	Short 5-15 Years	4	Low	On-site
346	<i>Pittosporum undulatum</i> (Native Daphne)	7	6	271	36	M	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	No Evidence	Fair with slightly thinning crown	Moderate Pittosporum Borer infestation.	Short 5-15 Years	4	Low	On-site
347	<i>Eucalyptus robusta</i> (Swamp Mahogany)	14	9	318	72	SM	Appears stable with sound branching structure.	Selectively pruned	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
348	<i>Glochidion ferdinandi</i> (Cheese Tree)	7	4	131	16	SM	Appears stable with sound branching structure.	No Evidence	Good	High foliar insect infestation (Leaf Miner)	Medium 15-40 Years	5	Low	On-site
349	<i>Pittosporum undulatum</i> (Native Daphne)	6	2	96	8	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
350	<i>Pittosporum undulatum</i> (Native Daphne)	6	4	153	12	SM	Stability suspect with sound branching structure. Exhibits a prominent lean to the west.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
351	<i>Pittosporum undulatum</i> (Native Daphne)	6	4	131	20	I	Stability suspect with sound branching structure. Exhibits a prominent lean to the west.	No Evidence	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
352	<i>Pittosporum undulatum</i> (Native Daphne)	5	2	92	4	I	Appears stable with fair branching structure. Poor form and habit with contorted trunk. Exhibits multiple small wounds due borer damage resulting in branch loss.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
353	<i>Glochidion ferdinandi</i> (Cheese Tree)	7	4	150	12	SM	Appears stable with sound branching structure.	No Evidence	Very Good	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
354	<i>Glochidion ferdinandi</i> (Cheese Tree)	6	4	146	12	I	Appears stable with sound branching structure. Exhibits a prominent lean to the lean to the NW.	No Evidence	Good	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site
355	<i>Glochidion ferdinandi</i> (Cheese Tree)	6	3	127	9	I	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site
356	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	5	190 + 120	25	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres over roadway	Good	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site
357	<i>Pittosporum undulatum</i> (Native Daphne)	7	6	191	24	SM	Appears stable with sound branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	No Evidence	Fair	Moderate Pittosporum Borer infestation.	Medium 15-40 Years	5	Low	On-site
358	<i>Pittosporum undulatum</i> (Native Daphne)	7	4	210	20	SM	Appears stable with sound branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	No Evidence	Fair	Low Pittosporum Borer infestation.	Medium 15-40 Years	5	Low	On-site
359	<i>Pittosporum undulatum</i> (Native Daphne)	7	2	118	4	I	Stability suspect with fair branching structure. Exhibits a very prominent lean to the west.	Crown lifted to 4 metres	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
360	<i>Banksia integrifolia</i> (Coast Banksia)	3	2	60	6	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
361	<i>Banksia integrifolia</i> (Coast Banksia)	4	3	100	12	I	Appears stable with sound branching structure.	No Evidence	Very Good	Low Possum defoliation	Long - more than 40 years	5	Moderate	On-site
362	<i>Banksia integrifolia</i> (Coast Banksia)	4	3	50	12	I	Appears stable with fair branching structure. Poor form and habit.	No Evidence	Good	Low Possum defoliation	Medium 15-40 Years	5	Low	On-site
363	<i>Glochidion ferdinandi</i> (Cheese Tree)	5	3	140	12	SM	Appears stable with sound branching structure.	No Evidence	Fair	High foliar insect infestation (Leaf Miner)	Medium 15-40 Years	5	Low	On-site
364	<i>Pittosporum undulatum</i> (Native Daphne)	7	4	185	20	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss. Prominent lean to the SE.	No Evidence	Fair	High Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
365	<i>Pittosporum undulatum</i> (Native Daphne)	7	4	150	20	SM	Appears stable with poor branching structure. Exhibits multiple small wounds due to borer damage resulting in branch loss. Large wound and cavity in lower trunk.	No Evidence	Fair	High Pittosporum Borer infestation	Transient (less than 5 years)	5	Very Low	On-site
366	<i>Pittosporum undulatum</i> (Native Daphne)	6	4	162	16	SM	Stability suspect with fair branching structure. Very prominent lean to the SW (self corrected).	Crown lifted to 3 metres	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
367	<i>Pittosporum undulatum</i> (Native Daphne)	5	4	150	16	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due to borer damage resulting in branch loss.	No Evidence	Fair	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
368	<i>Pittosporum undulatum</i> (Native Daphne)	6	5	175	20	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
369	<i>Pittosporum undulatum</i> (Native Daphne)	5	3	90	9	I	Stability suspect with poor branching structure. Exhibits a very prominent lean to the SW. Large axial wound from GL to 2 metres due to sunburn.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
370	<i>Pittosporum undulatum</i> (Native Daphne)	7	4	160	20	SM	Appears stable with fair branching structure.	Deadwooded	Fair with thinning crown	No Evidence	Short 5-15 Years	5	Low	On-site
371	<i>Pittosporum undulatum</i> (Native Daphne)	6	4	200	20	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due to borer damage resulting in branch loss. Large axial wound from GL to 1.5 metres.	No Evidence	Fair	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
372	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	4	201	16	SM	Appears stable with sound branching structure.	No Evidence	Good	High foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site
373	<i>Pittosporum undulatum</i> (Native Daphne)	9	7	268	49	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
374	<i>Acacia sp.</i> (Wattle)	5	4	220	20	SM	Appears stable with poor branching structure. Main leader broken out at 4-5 metres due to storm damage & collapsed. Poor form and habit.	No Evidence	Fair	High borer infestation	Transient (less than 5 years)	5	Very Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
375	<i>Pittosporum undulatum</i> (Native Daphne)	7	5	200	25	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the NW.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
375a	<i>Acacia sp.</i> (Wattle)	8	5	146	10	SM	Appears stable with sound branching structure. Located close to existing roadway.	No Evidence	Good	No Evidence	Short 5-15 Years	4	Low	On-site
376	<i>Pittosporum undulatum</i> (Native Daphne)	8	9	382	54	M	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	No Evidence	Fair with slightly thinning crown	Moderate Pittosporum Borer infestation	Short 5-15 Years	4	Low	On-site
376a	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	5	150x2	20	SM	Appears stable with poor branching structure. Exhibits a severe bark inclusion at GL.	No Evidence	Good	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	5	Low	On-site
377	<i>Eucalyptus sp.</i> (Eucalypt)	6	3	500	0	OM	Stability suspect with poor branching structure.	All PLs lopped	Dead	High termite & borer infestation	Nil	7	Very Low	On-site
378	<i>Glochidion ferdinandi</i> (Cheese Tree)	9	5	200 +100	25	SM	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site
379	<i>Pittosporum undulatum</i> (Native Daphne)	7	6	210	30	M	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss. Very prominent lean to the SW (self-corrected).	Deadwooded	Fair with slightly thinning crown	Moderate Pittosporum Borer infestation	Transient (less than 5 years)	4	Very Low	On-site
380	<i>Eucalyptus punctata</i> (Grey Gum)	18	18	525	180	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
380a	<i>Pittosporum undulatum</i> (Native Daphne)	4.5	3	162	7.5	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	Crown lifted to 2 metres	Fair	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
381	<i>Pittosporum undulatum</i> (Native Daphne)	6	5	200	25	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	Crown lifted to 2 metres	Fair with slightly thinning crown	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
382	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	4	2	160	4	SM	Appears stable with poor branching structure. Exhibits multiple moderate wounds due branch loss with cavity and decay. Multiple epicormics.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	1	Moderate	On-site
383	<i>Pittosporum undulatum</i> (Native Daphne)	7	4	131	16	SM	Appears stable with poor branching structure. Main leader broken out at 5 metres.	Crown lifted to 3 metres	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
383a	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	2	118	6	I	Appears stable with fair branching structure. Exhibits multiple small wounds due branch loss (storm damage). Low live crown ratio.	Crown lifted to 5 metres	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	5	Low	On-site
383b	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	5	207	15	SM	Appears stable with sound branching structure.	No Evidence	Good	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site
384	<i>Pittosporum undulatum</i> (Native Daphne)	7	5	172	20	SM	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss. Moderate wound in upper crown due storm damage.	No Evidence	Fair	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
385	<i>Glochidion ferdinandi</i> (Cheese Tree)	9	8	322	48	M	Appears stable with sound branching structure. Multiple epicormics due to previous pruning.	Selectively crown thinned & deadwooded	Fair with slightly thinning crown	High foliar insect infestation (Leaf Miner)	Medium 15-40 Years	4	Moderate	On-site
386	<i>Pittosporum undulatum</i> (Native Daphne)	8	5	200 + 150x2	30	M	Appears stable with fair branching structure. Growing atop rock platform. Limited root plate. Moderate bark inclusion at GL.	No Evidence	Fair with thinning crown	Moderate Pittosporum Borer infestation	Short 5-15 Years	4	Low	On-site
387	<i>Eucalyptus maidenii</i> (Maiden's Gum)	15	13	666	117	M	Appears stable with fair branching structure. Exhibits a very prominent lean to the south (self-corrected) with bend in trunk at 4-6 metres.	Selectively crown thinned & deadwooded	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
387a	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	4	140x2	24	SM	Appears stable with fair branching structure.	Crown lifted to 4 metres	Fair	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	5	Moderate	On-site
388	<i>Pittosporum undulatum</i> (Native Daphne)	11	5	170 + 220	40	M	Appears stable with fair branching structure. Exhibits multiple small wounds due borer damage resulting in branch loss.	No Evidence	Good	Moderate Pittosporum Borer infestation	Medium 15-40 Years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
389	<i>Pittosporum undulatum</i> (Native Daphne)	9	6	320	48	M	Appears stable with fair branching structure. Crown suppressed on north side due crowding. Some dieback with 10% deadwood.	No Evidence	Fair with thinning crown	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site
390	<i>Eucalyptus punctata</i> (Grey Gum)	11	5	450	20	M	Appears stable with poor branching structure. Exhibits a prominent lean to the NW. Multiple large wounds due previous branch loss (storm damage) - loss of all PLs at 8 metres.	No Evidence	Fair	Nectria sp Canker at 2 metres. Low Termite infestation	Transient (less than 5 years)	4	Very Low	On-site
391	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	7	6	300	30	OM	Appears stable with fair branching structure. Exhibits moderate dieback with 20% deadwood.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	1	Moderate	On-site
392	<i>Eucalyptus punctata</i> (Grey Gum)	7	1	293	0	OM	Appears stable with poor branching structure. Exhibits a moderate wound at 7 metres due branch loss (storm damage) including main leader (no remaining crown).	No Evidence	Dead	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
393	<i>Pittosporum undulatum</i> (Native Daphne)	10	7	290	56	M	Appears stable with sound branching structure. Exhibits some interior crown dieback with 10% deadwood	No Evidence	Fair	No Evidence	Long - more than 40 years	4	Moderate	On-site
394	<i>Elaeocarpus reticulatus</i> (Blueberry Ash)	6	3	100	9	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the south. Crown suppressed north side due crowding.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
395	<i>Pittosporum undulatum</i> (Native Daphne)	6	4	153	16	SM	Appears stable with sound branching structure. Crown suppressed on west side due to crowding.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
396	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	6	3	153	12	SM	Appears stable with fair branching structure. Exhibits moderate dieback with 20% deadwood. Small cavity in lower trunk.	Crown lifted to 2 metres	Fair with thinning crown	No Evidence	Transient (less than 5 years)	1	Moderate	On-site
397	<i>Glochidion ferdinandi</i> (Cheese Tree)	5	4	140	16	I	Appears stable with fair branching structure. Crown suppressed on north side due to overshadowing.	No Evidence	Fair	Moderate foliar insect infestation (Leaf Miner)	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
398	<i>Pittosporum undulatum</i> (Native Daphne)	11	8	430	64	M	Appears stable with fair branching structure. Exhibits a moderate wound due borer damage at 5 metres.	No Evidence	Fair with slightly thinning crown	Moderate Pittosporum Borer infestation	Short 5-15 Years	4	Low	On-site
399	<i>Ficus rubiginosa</i> (Port Jackson Fig)	13	13	500	104	M	Appears stable with fair branching structure. Exhibits multiple moderate wounds on lower trunk with decay evident (possibly old animal or fire injuries).	Selectively crown thinned & deadwooded	Fair with slightly thinning crown	Suspected fungal infection.	Short 5-15 Years	3	Low	On-site
400	<i>Polyscias elegans</i> (Celery Wood)	8	5	180	25	SM	Appears stable with poor branching structure. Exhibits multiple moderate wounds to PLs due storm damage.	Remedial pruning to repair storm damage.	Fair	No Evidence	Short 5-15 Years	4	Low	On-site
401	<i>Unidentified sp</i> (Oak-leaf)	5	3	100	6	I	Appears stable with fair branching structure. Exhibits a moderate wound and cavity at 1.2 metres. Crown suppressed on the west side due to overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
402	<i>Howea forsteriana</i> (Kentia Palm)	5	5	150	20	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
403	<i>Magnolia grandiflora</i> (Bullbay Magnolia)	7	5	260	25	SM	Appears stable with poor branching structure. Exhibits multiple moderate wounds due branch loss (storm damage).	Remedial pruning to repair storm damage.	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
404	<i>Glochidion ferdinandi</i> (Cheese Tree)	7	7	230	35	M	Appears stable with fair branching structure. Crown suppressed on east side due storm damage & previous pruning.	Remedial pruning to repair storm damage.	Good	Moderate foliar insect infestation (Leaf Miner)	Medium 15-40 Years	4	Moderate	On-site
405	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	5	6	50 + 100x2	24	SM	Appears stable with poor branching structure. Upper crown suppressed due to overshadowing.	No Evidence	Fair with thinning crown	No Evidence	Transient (less than 5 years)	1	Moderate	On-site
406	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	13	6	230	24	M	Appears stable with sound branching structure. Steel band installed to trunk from GL to 1.5 metres.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
407	<i>Casuarina cunninghamiana</i> (River Oak)	6	3	150	15	I	Appears stable with fair branching structure. Crown suppressed on the west side due to overshadowing.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
407a	<i>Casuarina cunninghamiana</i> (River Oak)	12	7	290	63	SM	Appears stable with sound branching structure.	Selectively pruned to clear building	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
408	<i>Casuarina cunninghamiana</i> (River Oak)	4	3	120	9	I	Appears stable with poor branching structure. Dieback in main leader. Crown suppressed on west side due building.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
409	<i>Casuarina cunninghamiana</i> (River Oak)	12	7	261	63	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the north.	Selectively pruned to clear building	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	4	Moderate	On-site
410	<i>Eucalyptus microcorys</i> (Tallowwood)	8	9	250	45	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the west.	Crown lifted to 3 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
411	<i>Banksia integrifolia</i> (Coast Banksia)	9	7	320	49	SM	Appears stable with fair branching structure. Exhibits a prominent lean to the south-west.	No Evidence	Good	Moderate vine infestation (Climbing Fig)	Medium 15-40 Years	4	Moderate	On-site
412	<i>Syagrus romanzoffianum</i> (Cocos Palm)	9	6	300	24	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	6	Low	On-site
413	<i>Eucalyptus robusta</i> (Swamp Mahogany)	12	8	200 + 250 + 100	72	SM	Appears stable with fair branching structure. Crown suppressed on the SW side due to overshadowing.	Crown lifted to 3 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
414	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	13	17	700 + 600 + 450	187	M	Appears stable with sound branching structure.	Selectively pruned & deadwooded	Very Good	No Evidence	Long - more than 40 years	2	High	On-site
415	<i>Casuarina glauca</i> (Swamp Oak)	14	7	341	84	M	Appears stable with sound branching structure. Crown suppressed on the SE side. Some upper crown dieback.	Crown lifted to 4 metres	Fair	No Evidence	Medium 15-40 Years	4	Moderate	On-site
416	<i>Casuarina glauca</i> (Swamp Oak)	9	8	430	56	SM	Appears stable with poor branching structure. Multiple moderate bark inclusions at junctions of PLs at 0.5 metres. Poor form and habit.	Crown lifted to 3 metres	Good	No Evidence	Short 5-15 Years	4	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
417	<i>Casuarina glauca</i> (Swamp Oak)	8	4	200	24	SM	Appears stable with poor branching structure. Exhibits a prominent lean to the NW. Crown suppressed on the SE side due to overshadowing. Bend in trunk at 2 metres. Poor form and habit.	No Evidence	Good	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
418	<i>Casuarina glauca</i> (Swamp Oak)	3	3	50	9	I	Appears stable with poor branching structure. Crown suppressed due to overshadowing.	No Evidence	Poor with sparse crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
419	<i>Pittosporum rhombifolium</i> (Queenland Pittosporum)	6	4	120x2	20	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
420	<i>Casuarina glauca</i> (Swamp Oak)	3	2	80	6	I	Appears stable with poor branching structure.	No Evidence	Fair with thinning crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
421	<i>Pittosporum rhombifolium</i> (Queenland Pittosporum)	6	4	100 + 80	16	I	Appears stable with sound branching structure.	Crown lifted to 2 metres	Fair	No Evidence	Medium 15-40 Years	5	Low	On-site
422	<i>Eucalyptus sp. [punctata]</i> (Grey Gum)	8	5	150	35	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
423	<i>Eucalyptus sp. [punctata]</i> (Grey Gum)	7	4	150	24	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
424	<i>Unidentified sp</i>	8	4	300	28	I	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Medium 15-40 Years	5	Low	On-site
425	<i>Unidentified sp</i>	8	4	300	28	I	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Medium 15-40 Years	5	Low	On-site
426	<i>Pittosporum undulatum</i> (Native Daphne)	6	6	270	30	M	Appears stable with fair branching structure. Exhibits multiple small wounds due to borer damage resulting in branch loss. Prominent lean to the east.	Crown lifted to 2 metres	Good	Moderate Pittosporum Borer infestation	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
427	<i>Ficus macrophylla</i> (Moreton Bay Fig)	9	14	600	112	OM	Unstable with fair branching structure. Fallen tree. Root plate lifted & exposed. Multiple moderate wounds to trunk and PLs due to sunburn.	Deadwooded	Good	No Evidence	Transient (less than 5 years)	2	Low	On-site
428	<i>Kigelia africana</i> (Sausage Tree)	10	10	320x2	80	M	Appears stable with sound branching structure. Exhibits multiple large wounds on lower trunk from GL to 1 metres due to animal grazing affecting 70-80% circumference.	No Evidence	Good	No Evidence	Short 5-15 Years	1	High	On-site
429	<i>Ligustrum lucidum</i> (Broad Leaf Privet)	7	5	150	25	SM	Appears stable with fair branching structure. Crown suppressed on west side due to overshadowing.	No Evidence	Very Good	No Evidence	Long - more than 40 years	7	Very Low	On-site
429a	<i>Trachycarpus fortunei</i> (Chinese Windmill Palm)	7	2	200	2	M	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
429b	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	5	5	110 + 180	15	I	Appears stable with sound branching structure. Growing on edge and face of wall.	No Evidence	Very Good	Low vine infestation (Boston Ivy)	Long - more than 40 years	5	Moderate	On-site
430	<i>Hakea salicifolia</i> (Willow-leaf Hakea)	5	5	230	15	M	Appears stable with fair branching structure.	Crown lifted to 2 metres	Good	Moderate borer infestation	Short 5-15 Years	5	Low	On-site
431	<i>Hakea salicifolia</i> (Willow-leaf Hakea)	5	6	250	18	M	Appears stable with fair branching structure.	Crown lifted to 2 metres	Good	Moderate borer infestation	Short 5-15 Years	5	Low	On-site
431a	<i>Polyscias elegans</i> (Celery Wood)	8	7	220	21	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the north.	No Evidence	Very Good	High vine infestation (Boston Ivy)	Medium 15-40 Years	4	Moderate	On-site
432	<i>Acacia sp.</i> (Sweet Acacia)	4	5	80 + 100	15	M	Appears stable with fair branching structure. Exhibits a prominent lean to the east. Multiple small wounds to PLs & SLs with decay evident.	Selectively pruned	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
433	<i>Acacia sp.</i> (Sweet Acacia)	5	5	70x3	20	M	Appears stable with fair branching structure. Very prominent lean to the SE. Small wound with decay.	Selectively pruned	Fair	No Evidence	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
434	<i>Libidibia [syn.Caesalpinia] ferrea</i> (Leopard Tree)	7	8	250	32	SM	Appears stable with fair branching structure. Exhibits multiple moderate wounds to trunk due to animal grazing.	No Evidence	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
435	<i>Glochidion ferdinandi</i> (Cheese Tree)	9	8	400	56	M	Appears stable with fair branching structure. Exhibits multiple moderate wounds to trunk due to animal grazing.	Selectively pruned	Fair with thinning crown	High foliar insect infestation (Leaf Miner)	Short 5-15 Years	4	Low	On-site
436	<i>Washingtonia filifera</i> (Cotton Palm)	8	4	320	16	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
436a	<i>Olea europaea subsp. africana</i> (African Olive)	6	7	100x4	35	SM	Appears stable with fair branching structure.	SLs lopped	Very Good	No Evidence	Long - more than 40 years	6	Low	On-site
437	<i>Jacaranda mimosifolia</i> (Jacaranda)	7	9	200x3	36	M	Appears stable with fair branching structure. Exhibits multiple small wounds to PLs due mechanical injury. Multiple PLs at GL.	Selectively pruned to clear roadway.	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
437a	<i>Ficus macrophylla</i> (Moreton Bay Fig)	11	10	330	90	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
437b	<i>Ficus rubiginosa</i> (Port Jackson Fig)	7	7	250	42	SM	Appears stable with fair branching structure. Crown suppressed on north side due overshadowing.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
438	<i>Olea europaea subsp. africana</i> (African Olive)	7	4	300	24	I	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Medium 15-40 Years	5	Low	On-site
439	<i>Olea europaea subsp. africana</i> (African Olive)	7	4	300	24	I	Appears stable with sound branching structure.	No Evidence	Fair	No Evidence	Medium 15-40 Years	5	Low	On-site
440	<i>Glochidion ferdinandi</i> (Cheese Tree)	7	9	330	54	M	Appears stable with sound branching structure. Growing on edge of bank & close to existing retaining wall.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
440a	<i>Olea europaea subsp. africana</i> (African Olive)	6	7	100 + 150	35	SM	Appears stable with fair branching structure. Growing on edge of bank.	No Evidence	Fair	No Evidence	Short 5-15 Years	6	Very Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
440b	<i>Olea europaea subsp. africana</i> (African Olive)	8	11	150x4	77	M	Appears stable with poor branching structure. Growing on edge of cliff. Exhibits multiple high bark inclusions.	No Evidence	Good	No Evidence	Medium 15-40 Years	6	Low	On-site
441	<i>Ficus obliqua</i> (Small-leaf Fig)	10	11	350 + 400	88	M	Appears stable with fair branching structure. Growing on edge of cliff.	Selectively pruned.	Very Good	Low Fig Psyllid infestation	Long - more than 40 years	3	High	On-site
442	<i>Olea europaea subsp. africana</i> (African Olive)	5	6	150	18	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the south. Crown suppressed on north side due overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	6	Very Low	On-site
443	<i>Olea europaea subsp. africana</i> (African Olive)	5	6	180	18	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the south. Crown suppressed on north side due overshadowing.	No Evidence	Good	No Evidence	Short 5-15 Years	6	Very Low	On-site
444	<i>Acacia sp.</i> (Sweet Acacia)	4	5	150	20	M	Appears stable with fair branching structure.	Crown lifted to 1.5 metres	Fair	No Evidence	Medium 15-40 Years	1	High	On-site
445	<i>Aloe ferox</i> (Cape Aloe)	3.5	2	160	3	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site
446	<i>Aloe ferox</i> (Cape Aloe)	3	1.5	150	1.5	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site
447	<i>Acacia sp.</i> (Sweet Acacia)	4	5	100x2	15	M	Appears stable with poor branching structure. Exhibits multiple wounds due animal damage with very prominent lean to the south.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
448	<i>Fraxinus americana</i> (American Ash)	6	5	300	20	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
449	<i>Acacia sp.</i> (Sweet Acacia)	4	4	100x3	12	M	Stability suspect with poor branching structure. Exhibits a very prominent lean to the west.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
450	<i>Acacia sp.</i> (Sweet Acacia)	4	4	100x3	12	M	Stability suspect with poor branching structure. Exhibits a very prominent lean to the south.	No Evidence	Fair	No Evidence	Transient (less than 5 years)	5	Very Low	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
451	<i>Olea europaea subsp. africana</i> (African Olive)	7	4	200	24	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Short 5-15 Years	6	Low	On-site
452	<i>Olea europaea subsp. africana</i> (African Olive)	5	6	200	24	SM	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Short 5-15 Years	6	Low	On-site
453a	Row of 4 x <i>Acacia sp.</i> (Prickly Acacia)	4	6	200	24	M	Appears stable with poor branching structure.	No Evidence	Fair	No Evidence	Short 5-15 Years	6	Low	On-site
453b	Row of 6 x <i>Acacia sp.</i> (Prickly Acacia)	4	6	200	24	M	Appears stable with poor branching structure.	No Evidence	Fair	No Evidence	Short 5-15 Years	6	Low	On-site
454	<i>Phoenix roebelenii</i> (Dwarf Date Palm)	4	3	150	12	M	Appears stable with sound branching structure. Exhibits a very prominent lean to the north-west.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
455	<i>Podocarpus elatus</i> (Brown Pine)	5	3	150 + 70	15	I	Appears stable with poor branching structure. Exhibits multiple high bark inclusions at GL and 1.5 metres.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
456	<i>Podocarpus elatus</i> (Brown Pine)	6	3	140	15	I	Appears stable with fair branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
457	<i>Acacia floribunda</i> (Sally Wattle)	5	6	160	21	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the SE. Root plate exposed by Brush Turkeys.	No Evidence	Good	Moderate borer infestation	Short 5-15 Years	5	Low	On-site
458	<i>Phoenix reclinata</i> (Senegal Date Palm)	5	6	100x10	30	M	Appears stable with sound branching structure.	Selectively pruned	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
458a	<i>Spathodea campanulata</i> (African Tulip Tree)	7	6	220	30	SM	Appears stable with sound branching structure.	Selectively pruned	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	1	High	On-site
458b	<i>Strelitzia nicolai</i> (Giant White Bird of Paradise)	7	6	100x7	42	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site

		APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
458c	<i>Spathodea campanulata</i> (African Tulip Tree)	6	4	172	16	SM	Appears stable with fair branching structure. Prominent lean to the NE. Crown suppressed on SW side due to crowding.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
459	<i>Podocarpus elatus</i> (Brown Pine)	7	4	172	24	I	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at junction of PL at 2.5 metres.	Crown lifted to 1.5 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
460	<i>Acacia floribunda</i> (Sally Wattle)	5	4	80	12	I	Appears stable with sound branching structure. Very rominent lean to the SW. Crown suppressed on NE side due to crowding.	No Evidence	Good	No Evidence	Short 5-15 Years	5	Low	On-site
461	<i>Phoenix roebelenii</i> (Dwarf Date Palm)	4	3	150	12	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
461a	<i>Podocarpus elatus</i> (Brown Pine)	6	4.5	150	18	I	Appears stable with sound branching structure.	Crown lifted to 1.5 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
462	<i>Podocarpus elatus</i> (Brown Pine)	6	4.5	150	22.5	I	Appears stable with sound branching structure.	Crown lifted to 1.5 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
462a	<i>Podocarpus elatus</i> (Brown Pine)	5	4	140	14	I	Appears stable with sound branching structure.	Crown lifted to 1.5 metres	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
463	<i>Gleditsia triacanthos</i> (Honey Locust)	12	9	330	90	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
464	<i>Eucalyptus robusta</i> (Swamp Mahogany)	13	7	300	56	SM	Appears stable with sound branching structure. Crown suppressed on south side due to crowding.	Crown lifted to 4 metres. Deadwooded.	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
464a	<i>Gleditsia triacanthos</i> (Honey Locust)	4.5	4.5	100	11.25	I	Appears stable with sound branching structure. Steel band installed to trunk from GL to 1.5 metres. Located close to existing retaining wall.	Crown lifted to 1.5 metres	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
465	<i>Eucalyptus robusta</i> (Swamp Mahogany)	13	10	350	80	SM	Appears stable with sound branching structure. Crown suppressed on north & south side due to crowding.	Crown lifted to 4 metres. Deadwooded.	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
466	<i>Eucalyptus robusta</i> (Swamp Mahogany)	15	14	400	140	M	Appears stable with sound branching structure.	Crown lifted to 3 metres. Deadwooded.	Good	No Evidence	Long - more than 40 years	3	High	On-site
466a	<i>Aloe ferox</i> (Cape Aloe)	1.5	1	100	1.5	I	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site
467	<i>Aloe ferox</i> (Cape Aloe)	4	2	200	6	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
468	<i>Aloe ferox</i> (Cape Aloe)	2	1	150	2	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
469	<i>Cordyline australis</i> (Cordyline)	4.5	3	180	10.5	M	Appears stable with fair branching structure.	No Evidence	Fair	No Evidence	Medium 15-40 Years	5	Low	On-site
470	<i>Aloe ferox</i> (Cape Aloe)	5	3	360	6	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
471	<i>Araucaria cunninghamii</i> (Hoop Pine)	25	12	822	276	M	Appears stable with sound branching structure. Exhibits a slight lean to the NE.	No Evidence	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
472	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	17	25	1400	350	M	Appears stable with fair branching structure. Exhibits multiple co-dominant PLs at 2-3 metres with multiple moderate bark inclusions.	Selectively crown thinned & deadwooded	Very Good	No Evidence	Long - more than 40 years	1	High	On-site
473	<i>Ceiba</i> [syn. <i>Chorisia</i>] <i>speciosa</i> (Silk Floss Tree)	16	10	497	110	M	Appears stable with fair branching structure. Exhibits a moderate wound at 11 metres due branch loss.	Selectively pruned & deadwooded	Fair	No Evidence	Long - more than 40 years	1	High	On-site
474	<i>Unidentified sp</i> (Chestnut)	15	4	239	48	SM	Appears stable with fair branching structure. Crown suppressed north & south side due to crowding.	Crown lifted to 5 metres	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	4	Moderate	On-site
475	<i>Unidentified sp</i> (Chestnut)	15	16	506	160	M	Appears stable with fair branching structure.	Deadwooded	Very Good	No Evidence	Long - more than 40 years	3	High	On-site

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Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
476	<i>Unidentified sp</i> (Chestnut)	14	8	283	80	SM	Appears stable with fair branching structure. Crown suppressed on east side due to overshadowing.	Crown lifted to 5 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
476a	<i>Bauhinia variegata</i> (Orchid Tree)	6	6	201	24	SM	Appears stable with fair branching structure. Exhibits a very prominent lean to the west. Crown suppressed on east side due to overshadowing.	Selectively pruned.	Good	Low Possum defoliation	Short 5-15 Years	5	Low	On-site
477	<i>Strelitzia nicolai</i> (Giant White Bird of Paradise)	7	7	100x10	49	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
478	<i>Glochidion ferdinandi</i> (Cheese Tree)	8	10	440	70	M	Appears stable with fair branching structure. Exhibits multiple low bark inclusions at 2 and 3-4 metres at junctions of PLs & SLs.	No Evidence	Good	Moderate foliar insect infestation (Leaf Miner)	Long - more than 40 years	3	High	On-site
478a	<i>Plumeria acutifolia</i> (Frangipani)	5	7	200x2	28	M	Appears stable with poor branching structure. Crown suppressed on south side due to overshadowing.	Selectively pruned.	Fair	Moderate vine infestation	Short 5-15 Years	5	Low	On-site
479	<i>Glochidion ferdinandi</i> (Cheese Tree)	7	8	450	40	M	Appears stable with fair branching structure.	Selectively pruned.	Good	Moderate foliar insect infestation (Leaf Miner)	Medium 15-40 Years	4	Moderate	On-site
479a	<i>Melaleuca armillaris</i> (Bracelet Honey Myrtle)	6	7	200x3	28	OM	Stability suspect with poor branching structure. Exhibits multiple high bark inclusions at GL. Very prominent lean to the west.	Selectively pruned.	Poor with sparse crown	No Evidence	Transient (less than 5 years)	5	Very Low	On-site
500	<i>Lophostemon confertus</i> (Brushbox)	14	13	700	117	M	Appears stable with sound branching structure. Exhibits multiple moderate axial wounds and dieback in vascular tissue in lower trunk.	Selectively pruned & deadwooded	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	1	High	On-site
501	<i>Ficus lyrata</i> (Fiddle-leaf Fig)	10	11	341	88	SM	Appears stable with sound branching structure.	Deadwooded	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	4	Moderate	On-site
502	<i>Kigelia africana</i> (Sausage Tree)	7	7	223	42	SM	Appears stable with sound branching structure. Crown suppressed on east side due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
502a	<i>Albizzia julibrissin</i> (Silk Tree)	6	6	100	24	SM	Appears stable with sound branching structure. Crown suppressed on east side due to overshadowing.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
503	<i>Kigelia africana</i> (Sausage Tree)	6	5	169	22.5	I	Appears stable with sound branching structure. Crown suppressed on north side due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	1	High	On-site
503a	<i>Pittosporum undulatum</i> (Native Daphne)	8	6	240	36	M	Appears stable with sound branching structure.	Selectively pruned.	Good	Moderate vine infestation (Boston Ivy)	Medium 15-40 Years	4	Moderate	On-site
503b	<i>Polyscias elegans</i> (Celery Wood)	6	4	150x2	8	SM	Appears stable with fair branching structure. Located close to existing retaining wall.	No Evidence	Fair	No Evidence	Short 5-15 Years	5	Low	On-site
504	<i>Polyscias elegans</i> (Celery Wood)	6	5	200	15	SM	Stability suspect with fair branching structure. Prominent lean to the south. Located close to existing retaining wall.	No Evidence	Fair	Moderate vine infestation (Boston Ivy)	Short 5-15 Years	5	Low	On-site
504a	<i>Polyscias elegans</i> (Celery Wood)	7	4	242	8	SM	Appears stable with sound branching structure. Exhibits a prominent lean to the SW. Confined root plate.	No Evidence	Good	Moderate vine infestation (Boston Ivy)	Short 5-15 Years	5	Low	On-site
505	<i>Howea forsteriana</i> (Kentia Palm)	7	3	180	6	M	Appears stable with sound branching structure. Located in narrow planter box. Crown suppressed on north side due to overshadowing.	No Evidence	Good	Moderate Palm Scale infestation	Medium 15-40 Years	5	Low	On-site
506	<i>Howea forsteriana</i> (Kentia Palm)	9	4	180	12	M	Appears stable with sound branching structure. Located in narrow planter box.	No Evidence	Good	Low Palm Scale infestation	Long - more than 40 years	4	Moderate	On-site
507	<i>Howea forsteriana</i> (Kentia Palm)	6	3	180	6	M	Appears stable with sound branching structure. Located in narrow planter box.	No Evidence	Good	High Palm Scale infestation	Medium 15-40 Years	5	Low	On-site
508	<i>Howea forsteriana</i> (Kentia Palm)	7	4	150	8	M	Appears stable with sound branching structure.	No Evidence	Good	Moderate Palm Scale infestation	Long - more than 40 years	5	Moderate	On-site
509	<i>Howea forsteriana</i> (Kentia Palm)	9	4	170	12	M	Appears stable with sound branching structure.	No Evidence	Good	Low Palm Scale infestation	Long - more than 40 years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
510	<i>Ficus obliqua</i> (Small-leaf Fig)	10	9	350	45	SM	Appears stable with sound branching structure.	Deadwooded	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	4	Moderate	On-site
511	<i>Ficus obliqua</i> (Small-leaf Fig)	10	9	354	72	SM	Appears stable with sound branching structure. Located in raised planter box with confined root plate. 15% deadwood.	Selectively crown thinned & deadwooded	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Moderate	On-site
512	<i>Harpulia pendula</i> (Tulipwood)	8	8	258	40	M	Appears stable with sound branching structure. Located in raised planter box with confined root plate.	Crown lifted to 4 metres	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
513	<i>Podocarpus elatus</i> (Brown Pine)	7	3	120	21	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
514	<i>Howea forsteriana</i> (Kentia Palm)	7	4.5	150	9	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
515	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	7	4	190	28	SM	Appears stable with fair branching structure. Crown suppressed on south side due to overshadowing.	Crown lifted to 2 metres	Good	Moderate foliar insect infestation	Medium 15-40 Years	5	Low	On-site
516	<i>Ficus obliqua</i> (Small-leaf Fig)	7	8	300	40	SM	Appears stable with sound branching structure. Located in raised planter box with confined root plate.	Crown lifted to 3 metres. Deadwooded.	Fair with slightly thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
517	<i>Howea forsteriana</i> (Kentia Palm)	5	4	120	12	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
518	<i>Ficus obliqua</i> (Small-leaf Fig)	7	8	300	40	SM	Appears stable with sound branching structure.	Deadwooded	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
519	<i>Ficus obliqua</i> (Small-leaf Fig)	6	7	240	28	SM	Appears stable with fair branching structure. Exhibits some dieback with 10% deadwood.	Deadwooded	Poor with sparse crown	No Evidence	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
519a	<i>Unidentified sp</i>	6	4	110	16	I	Appears stable with fair branching structure. Located within a raised planter box with confined root plate.	Selectively pruned and crown lifted to 2 metres.	Good	No Evidence	Short 5-15 Years	5	Low	On-site
519b	<i>Unidentified sp</i>	7	4	150 +100	20	I	Appears stable with fair branching structure. Located within a raised planter box with confined root plate.	Selectively pruned and crown lifted to 2 metres.	Good	No Evidence	Short 5-15 Years	5	Low	On-site
520	<i>Ficus obliqua</i> (Small-leaf Fig)	7	9	260	36	SM	Appears stable with fair branching structure. Located within a raised planter box with confined root plate.	Selectively pruned & deadwooded	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
521	<i>Harpulia pendula</i> (Tulipwood)	7	6	200	30	SM	Appears stable with sound branching structure. Located within a raised planter box with confined root plate. Prominent lean to the SE.	Crown lifted to 2 metres.	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
522	<i>Podocarpus elatus</i> (Brown Pine)	6	3	140	15	I	Appears stable with sound branching structure. Located within a raised planter box with confined root plate.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
523	<i>Ficus obliqua</i> (Small-leaf Fig)	7	10	330	50	SM	Appears stable with sound branching structure. Located within a raised planter box with confined root plate.	Deadwooded	Fair with thinning crown	No Evidence	Short 5-15 Years	4	Low	On-site
524	<i>Harpulia pendula</i> (Tulipwood)	6	5	250	22.5	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
526	<i>Ficus obliqua</i> (Small-leaf Fig)	7	9	330	49.5	SM	Appears stable with sound branching structure. Located within a raised planter box with confined root plate.	Deadwooded	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
527	<i>Harpulia pendula</i> (Tulipwood)	7	5	200	30	SM	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at 1.5 metres. Crown suppressed on SW side due crowding. Prominent lean to the NE.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
528	<i>Harpulia pendula</i> (Tulipwood)	6	6	250	30	SM	Stability suspect with fair branching structure. Exhibits a very prominent lean to the NW (self-corrected).	Selectively pruned	Very Good	No Evidence	Short 5-15 Years	4	Low	On-site
528a	<i>Podocarpus elatus</i> (Brown Pine)	7	4	150	28	I	Appears stable with sound branching structure. Located close to an existing service pit.	Crown lifted to 2 metres north side.	Very Good	No Evidence	Transient (less than 5 years)	5	Very Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m ²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
529	<i>Harpulia pendula</i> (Tulipwood)	7	6	220	42	SM	Appears stable with sound branching structure. Exhibits a very prominent lean to the north. Multiple epicormics emanating from lower trunk.	Crown lifted to 3 metres.	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
530	<i>Ficus obliqua</i> (Small-leaf Fig)	10	11	450	77	M	Appears stable with sound branching structure. Exhibits multiple co-dominant PLs at 2 metres.	Crown lifted to 4 metres. Deadwooded.	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	3	High	On-site
530a	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	8	3	190	12	SM	Appears stable with fair branching structure. Crown suppressed on the NW side due to crowding.	Crown lifted to 3 metres.	Fair with slightly thinning crown	Low foliar insect infestation	Short 5-15 Years	5	Low	On-site
531	<i>Harpulia pendula</i> (Tulipwood)	10	9	290	81	M	Appears stable with poor branching structure. Exhibits multiple high bark inclusions at 1.6 metres.	Crown lifted to 3 metres.	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
532	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	8	3	160	9	SM	Appears stable with fair branching structure. Crown suppressed on NW side due to crowding.	Crown lifted to 3 metres.	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
533	<i>Ficus obliqua</i> (Small-leaf Fig)	10	8	360	56	SM	Appears stable with sound branching structure. Crown suppressed on NW side due to crowding.	Crown lifted to 4 metres.	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
534	<i>Ficus obliqua</i> (Small-leaf Fig)	10	9	420	63	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
535	<i>Harpulia pendula</i> (Tulipwood)	8	5	200	35	M	Appears stable with sound branching structure.	Selectively pruned.	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
536	<i>Harpulia pendula</i> (Tulipwood)	8	6	250	42	M	Appears stable with poor branching structure. Exhibits severe bark inclusions at 1.6 & 2 metres.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
537	<i>Ficus obliqua</i> (Small-leaf Fig)	11	12	436	108	M	Appears stable with sound branching structure. Exhibits a low bark inclusion at 2 metres.	Selectively crown thinned & deadwooded	Good	No Evidence	Long - more than 40 years	3	High	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
538	<i>Howea forsteriana</i> (Kentia Palm)	8	4	160	12	M	Appears stable with sound branching structure. Upper crown suppressed due to overshadowing.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
538a	<i>Podocarpus elatus</i> (Brown Pine)	5	4	100	20	I	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Medium 15-40 Years	5	Low	On-site
539	<i>Harpulia pendula</i> (Tulipwood)	12	8	270	96	M	Appears stable with sound branching structure. Exhibits a low bark inclusion at 1.6 metres. Crown suppressed on SW side due to crowding.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
540	<i>Ficus obliqua</i> (Small-leaf Fig)	12	12	380	120	M	Appears stable with sound branching structure. Exhibits some interior crown dieback with 10% deadwood	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
541	<i>Ficus obliqua</i> (Small-leaf Fig)	11	12	400	84	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	3	High	On-site
542	<i>Harpulia pendula</i> (Tulipwood)	8	5	220	40	SM	Appears stable with fair branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
543	<i>Harpulia pendula</i> (Tulipwood)	8	5	200	40	SM	Appears stable with fair branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site
544	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	8	3	200	3	SM	Appears stable with fair branching structure. Exhibits a low bark inclusion at 3.5 metres.	No Evidence	Good	No Evidence	Medium 15-40 Years	5	Low	On-site
545	<i>Ficus obliqua</i> (Small-leaf Fig)	8	10	400	70	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
546	<i>Podocarpus elatus</i> (Brown Pine)	9	4	188	36	I	Appears stable with fair branching structure. Exhibits multiple codominant PLs at 3-4 metres with included bark at branch junctions.	No Evidence	Very Good	No Evidence	Short 5-15 Years	5	Low	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
547	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	5	4	156	12	I	Appears stable with fair branching structure. Exhibits a moderate bark inclusion at 1.5 metres.	No Evidence	Fair	Moderate foliar insect infestation	Short 5-15 Years	5	Low	On-site
548	<i>Lophostemon confertus</i> (Brushbox)	14	14	863	140	M	Appears stable with fair branching structure. Exhibits a large wound at 2-3 metres due branch loss (PL) (storm damage). Prominent lean to the NW. Some dieback with 10% deadwood.	Selectively crown thinned & deadwooded	Good	No Evidence	Medium 15-40 Years	2	High	On-site
549	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	14	14	500	168	M	Appears stable with fair branching structure. Exhibits multiple small wounds due to previous branch loss.	Deadwooded	Good	No Evidence	Medium 15-40 Years	2	High	On-site
550	<i>Lophostemon confertus</i> (Brushbox)	13	10	487	110	M	Appears stable with sound branching structure. Exhibits some interior crown deadwood (25%).	Selectively pruned & deadwooded	Fair with slightly thinning crown	Moderate vine infestation	Medium 15-40 Years	3	High	On-site
551	<i>Ficus rubiginosa</i> (Port Jackson Fig)	11	11	400	88	M	Appears stable with fair branching structure. Crown suppressed on NE side due to crowding.	No Evidence	Fair with slightly thinning crown	No Evidence	Long - more than 40 years	4	Moderate	On-site
552	<i>Araucaria cunninghamii</i> (Hoop Pine)	20	13	650	195	M	Appears stable with sound branching structure. Exhibits a prominent lean to the north.	No Evidence	Fair with thinning crown	No Evidence	Medium 15-40 Years	1	High	On-site
552a	<i>Harpulia pendula</i> (Tulipwood)	7	6	180	30	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
553	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	11	7	248	63	SM	Stability suspect with sound branching structure. Root plate undermined possibly by broken sub-surface drain or waterpipe.	No Evidence	Very Good	Low foliar insect infestation	Long - more than 40 years	4	Moderate	On-site
554	<i>Ficus obliqua</i> (Small-leaf Fig)	11	10	370	80	SM	Appears stable with fair branching structure. Exhibits multiple moderate bark inclusions at 1.5 metres at junctions of co-dominant PLs Crown suppressed on NW side due to crowding.	No Evidence	Fair with slightly thinning crown	No Evidence	Medium 15-40 Years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
555	<i>Ficus obliqua</i> (Small-leaf Fig)	12	12	430	108	M	Appears stable with sound branching structure.	Deadwooded	Good	No Evidence	Long - more than 40 years	3	High	On-site
556	<i>Ficus obliqua</i> (Small-leaf Fig)	11	11	450	77	M	Appears stable with sound branching structure.	Deadwooded	Good	No Evidence	Long - more than 40 years	3	High	On-site
557	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	13	4	220	16	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
558	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	15	4	250	16	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
559	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	13	4	220	16	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
560	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	11	3	260	9	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
561	<i>Howea forsteriana</i> (Kentia Palm)	7	3	180	9	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
562	<i>Ficus obliqua</i> (Small-leaf Fig)	13	10	450	110	M	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
563	<i>Ficus macrophylla</i> (Moreton Bay Fig)	15	15	500	150	M	Appears stable with sound branching structure.	Crown lifted to 6 metres.	Very Good	No Evidence	Long - more than 40 years	3	High	On-site
564	<i>Howea forsteriana</i> (Kentia Palm)	15	4	170	8	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Medium 15-40 Years	4	Moderate	On-site
565	<i>Ficus obliqua</i> (Small-leaf Fig)	13	12	450	120	M	Appears stable with sound branching structure.	Selectively pruned	Very Good	No Evidence	Long - more than 40 years	3	High	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
566	<i>Howea forsteriana</i> (Kentia Palm)	11	4	160	16	M	Appears stable with sound branching structure. Exhibits a prominent lean to the SE.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
567	<i>Howea forsteriana</i> (Kentia Palm)	11	4	160	16	M	Appears stable with sound branching structure. Exhibits a prominent lean to the SE.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
568	<i>Unidentified</i>	15	8	400	104	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
569	<i>Unidentified</i>	15	8	300	104	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
570	<i>Unidentified</i>	15	6	300	78	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
571	<i>Unidentified</i>	15	8	300	104	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
572	<i>Unidentified</i>	15	8	300	104	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
573	<i>Unidentified</i>	15	6	300	78	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
574	<i>Unidentified</i>	15	8	500	104	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
575	<i>Unidentified</i>	15	6	500	78	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
576	<i>Unidentified</i>	15	6	300	78	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site

APPENDIX 3 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE

Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
577	Unidentified	12	6	350	60	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
578	Unidentified	12	10	400	100	M	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
579	Unidentified	12	6	300	60	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
580	Unidentified	12	8	350	80	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
581	Unidentified	12	8	350	80	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
582	Unidentified	12	8	350	80	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
583	Unidentified	15	6	300	78	SM	Appears stable with sound branching structure.	No Evidence	Good	No Evidence	Long - more than 40 years	4	Moderate	On-site
GA	Group of 12 x <i>Archontophoenix cunninghamii</i> (Bangalow Palm)	3 to 6	2 to 5	80 to 120	20	SM	Appears stable with sound branching structure.	No Evidence	Very Good	No Evidence	Long - more than 40 years	5	Moderate	On-site

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
1	<i>Callistemon salignus</i> (Willow Bottlebrush)	M	3.3	1.8	34.1	Located within footprint of service entry to new Gorilla enclosure.	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
2	<i>Buckinghamia celsissima</i> (Ivory Curl Flower)	M	3.6	1.8	41.4	Proposed new Gorilla enclosure fence (& associated retaining wall) offset 2.5 metres SW at RL 63.00 (1.5 metres below grade). Excavations for fence/wall footings within TPZ. Some canopy pruning may be required to clear fenceline.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact. Proposed to be removed.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
3	<i>Casuarina glauca</i> (Swamp Oak)	M	7.8	2.8	189.0	Proposed new Gorilla enclosure fence (associated retaining wall) offset 5.1 metres SW at RL 63.00 (1.8 metres below grade). Excavations for fence/wall footings within TPZ.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact. Proposed to be removed.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
4	<i>Banksia serrata</i> (Old Man Banksia)	M	2.4	1.7	18.2	No proposed works within TPZ	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
5	<i>Melaleuca liniariifolia</i> (Narrow-leaved Paperbark)	M	3.2	1.9	33.1	No proposed works within TPZ	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
5a	<i>Eucalyptus crebra</i> (Narrow-leaved Ironbark)	M	1.7	1.3	8.8	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
6	<i>Tristaniopsis laurina</i> (Water Gum)	M	4.8	2.3	72.3	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
7	<i>Banksia integrifolia</i> (Coast Banksia)	M	5.2	2.3	83.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
7a	<i>Elaeocarpus reticulatus</i> (Blueberry Ash)	M	2.3	1.5	16.5	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
8	<i>Melaleuca decora</i> (White Feather Honey Myrtle)	M	2.1	1.6	13.9	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
9	<i>Elaeocarpus reticulatus</i> (Blueberry Ash)	M	2.5	1.6	20.1	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
10	<i>Podocarpus elatus</i> (Brown Pine)	M	6.6	2.6	136.8	Proposed new Gorilla enclosure fence (& associated retaining wall) offset 5.6 metres SW at RL 63.00 (0.7 metres below grade). Excavations for fence/wall footings within TPZ. Encroachment to TPZ = 4%	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for fence/retaining wall footings within TPZ in accordance with Section 10.6.
11	<i>Ficus macrophylla</i> (Moreton Bay Fig)	M	3.8	1.8	44.2	Located within footprint of proposed new Gorilla enclosure fenceline.	Proposed works will necessitate removal	Remove tree.
12	<i>Ficus macrophylla</i> (Moreton Bay Fig)	M	4.8	2.3	72.3	Located within footprint of proposed new Gorilla enclosure. Ground levels re-contoured and modified within TPZ.	Proposed works will necessitate removal	Remove tree.
13	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	M	2.5	1.6	19.4	Located within footprint of proposed new Gorilla enclosure. Ground levels re-contoured and modified within TPZ.	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
14	<i>Harpulia pendula</i> (Tulipwood)	M	3.2	1.9	33.0	Located within footprint of proposed new Gorilla enclosure. Ground levels re-contoured and modified within TPZ. Located in close proximity to new fence line. Substantial canopy pruned required to clear fence.	Proposed works will necessitate removal	Remove tree.
15	<i>Ficus macrophylla</i> (Moreton Bay Fig)	M	15.0	4.9	706.5	Proposed new Gorilla enclosure fence (& associated retaining wall?) offset 12.5 metres NE at RL 63.00 (0.5 metres below grade). Excavations for fence/wall footings within TPZ. Minor encroachment to TPZ (<5%). Proposed new stairs & associated path to new Gorilla enclosure offset 8.1 metres east at RL 61.20 (close to existing grade). Excavations for pavement sub-grade within TPZ. Encroachment to TPZ = 13%. Some canopy pruning may be required to clear enclosure fence.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this species will tolerate the level of encroachment proposed. No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for viewing platform and associated pathway within TPZ in accordance with Section 10.6. Undertake any required canopy pruning (to clear fenceline) in accordance with Section 10.12.
16	<i>Ficus coronata</i> (Sandpaper Fig)	M	4.5	1.5	63.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
17	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	4.7	2.0	70.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
18	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	M	3.9	2.1	47.7	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
21	<i>Ficus microcarpa var. hillii</i> (Hill's Weeping Fig)	M	3.3	1.9	33.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
22	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	3.6	2.0	41.4	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
23	<i>Ficus sp. [obliqua]</i> (Small-leaf Fig)	M	6.5	2.5	132.7	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
40	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	M	4.2	2.1	54.5	Located within footprint of proposed 'Congo Sanctuary'.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
41	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	M	3.9	1.9	48.2	Located within footprint of proposed 'Congo Sanctuary'.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
42	<i>Castanospermum australe</i> (Blackbean)	M	2.8	1.6	24.1	Located within footprint of proposed new pathway.	Proposed works will necessitate removal.	Remove tree.
43	<i>Alphitonia sp.</i> (Red Ash)	M	3.0	1.7	27.5	Located within footprint of proposed new pathway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
44	<i>Ficus longifolia</i> (Narrow-leaf Fig)	M	6.0	2.2	113.0	Existing enclosure offset 1 metre NE & SE to be demolished. Proposed new pathway offset 0.8 metres east at RL 60.18 (200mm above grade, within footprint of existing asphalt pathway). Proposed waterfeature (stream) offset 3.5 metres east (within footprint of existing enclosure).	The proposed works have the potential to result in substantial soil disturbance and root damage, leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing asphalt road and enclosure within TPZ in accordance with Section 10.5. Undertake excavations for new path sub-grade and stream within TPZ in accordance with Section 10.6.
45	<i>Ficus microcarpa var. hillii</i> (Hill's Weeping Fig)	M	4.5	2.0	64.7	Proposed new pathway offset 0.6 metres east at RL 60.18 (200mm above grade, within footprint of existing asphalt pathway). Some engineered fill may be required within SRZ	Proposed work has the potential to result in substantial soil disturbance and root damage, leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing asphalt road and enclosure within TPZ in accordance with Section 10.5. Undertake excavations for new path sub-grade and stream within TPZ in accordance with Section 10.6.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
46	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	M	2.8	1.6	24.9	Proposed new pathway offset 0.7 metres east at RL 60.18 (200mm above grade, within footprint of existing asphalt pathway). Some engineered fill may be required within SRZ	Proposed work has the potential to result in substantial soil disturbance and root damage, leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing asphalt road and enclosure within TPZ in accordance with Section 10.5. Undertake excavations for new path sub-grade and stream within TPZ in accordance with Section 10.6.
47	<i>Waterhousea floribunda</i> (Weeping Lilly Pilly)	M	3.8	1.9	44.7	Proposed new pathway offset 1.7 metres east at RL 60.18 (200mm above grade, within footprint of existing asphalt pathway).	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing asphalt road and enclosure within TPZ in accordance with Section 10.5. Undertake excavations for new path sub-grade and stream within TPZ in accordance with Section 10.6.
48	<i>Ficus microcarpa var. hillii</i> (Hill's Weeping Fig)	M	6.0	2.5	113.0	Proposed new pathway / elevated walkway offset 0.8 metres west at RL 60.15 (close to grade, within footprint of existing asphalt pathway to 2 metres above grade). Excavations for piers within TPZ/SRZ.	Proposed work has the potential to result in substantial soil disturbance and root damage, leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Trunk Protection in accordance with Section 10.4. Demolish existing asphalt pavement within TPZ in accordance with Section 10.5. Undertake excavations for new path sub-grade and pier footings within TPZ in accordance with Section 10.6. Avoid placement of piers within 'planter box' garden terrace.
49	<i>Ficus microcarpa var. hillii</i> (Hill's Weeping Fig)	M	4.5	2.0	63.6	Proposed new pathway / elevated walkway offset 2.0 metres east at RL 60.15 (close to grade, within footprint of existing asphalt pathway to 2 metres above grade). Excavations for piers within TPZ/SRZ.	Proposed work has the potential to result in substantial soil disturbance and root damage, leading to an adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Trunk Protection in accordance with Section 10.4. Demolish existing asphalt pavement within TPZ in accordance with Section 10.5. Undertake excavations for new path sub-grade and pier footings within TPZ in accordance with Section 10.6. Avoid placement of piers within 'planter box' garden terrace.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
50	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.0	1.6	28.3	Proposed new pathway / elevated walkway offset 2.7 metres east at RL 60.15 (close to grade, within footprint of existing asphalt pathway to 2 metres above grade). No encroachment to TPZ.	no adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection fence in accordance with Section 10.3.
51	<i>Aleurites moluccana</i> (Candlenut)	M	3.0	1.6	28.3	Located within footprint of proposed pedestrian ramp.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
51a	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	3.5	1.8	38.5	Located within footprint of proposed 'Congo Sanctuary'.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
52	<i>Ficus microcarpa var. hillii</i> (Hill's Weeping Fig)	M	4.9	2.1	76.0	Located within footprint of proposed 'Congo Sanctuary'.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
53	<i>Aleurites moluccana</i> (Candlenut)	M	4.0	1.8	50.2	Proposed 'Congo Sanctuary' offset 1.7 metres NE at RL 60.18 (150mm below grade). Excavations for pavement sub-grade within TPZ. Encroachment to TPZ = 21%.	Proposed work has the potential to result in substantial soil disturbance and root damage, leading to an adverse impact.	Remove tree.
54	<i>Brachychiton discolor</i> (Queensland Lacebark)	M	5.7	2.4	103.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
54a	<i>Harpulia pendula</i> (Tulipwood)	M	2.5	1.6	20.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
55	<i>Eucalyptus botryoides</i> (Bangalay)	M	4.8	2.3	72.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
55a	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	2.9	1.7	25.8	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
55b	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	3.4	1.8	36.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
56	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	3.3	1.8	35.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
57	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	4.0	1.8	50.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
71	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	2.5	1.6	20.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
72	<i>Harpulia pendula</i> (Tulipwood)	M	4.5	2.0	63.6	Proposed new roadway offset 3.5 metres SW at RL 54.20 (200mm above grade, beyond seatwall, within footprint of existing pathway.	No actual incursion to root zone due to barrier created by existing seatwall. No adverse impact	To be retained - no special tree protection measures required.
73	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	3.5	1.8	39.2	Proposed new roadway offset 1.7 metres SW at RL 54.20 (200mm above grade, beyond seatwall, within footprint of existing pathway.	No actual incursion to root zone due to barrier created by existing seatwall. No adverse impact	To be retained - no special tree protection measures required.
74	<i>Harpulia pendula</i> (Tulipwood)	M	4.5	1.6	63.6	Proposed new roadway offset 1.4 metres SW at RL 54.20 (200mm above grade, beyond seatwall, within footprint of existing pathway.	No actual incursion to root zone due to barrier created by existing seatwall. No adverse impact	To be retained - no special tree protection measures required.
75	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	3.0	1.7	27.5	Proposed new roadway offset 1.0 metres SW at RL 54.20 (200mm above grade, beyond seatwall, within footprint of existing pathway.	No actual incursion to root zone due to barrier created by existing seatwall. No adverse impact	To be retained - no special tree protection measures required.
76	<i>Howea forsteriana</i> (Kentia Palm)	M	2.4	1.5	18.6	Proposed new roadway offset 2.1 metres SW at RL 54.20 (200mm above grade, beyond seatwall, within footprint of existing pathway.	No actual incursion to root zone due to barrier created by existing seatwall. No adverse impact	To be retained - no special tree protection measures required.
77	<i>Howea forsteriana</i> (Kentia Palm)	G	3.1	1.7	30.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
92	<i>Flindersia sp. [schottiana]</i> (Cudgerie)	M	4.8	2.0	71.7	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
93	<i>Phoenix sylvestris</i> (Silver Date Palm)	G	5.2	2.3	83.6	Located within footprint of proposed roadway.	Proposed works will necessitate removal.	Relocate (transplant) elsewhere within the site in accordance with the landscape plan and specification.
95	<i>Araucaria cunninghamii</i> (Hoop Pine)	M	10.0	3.1	314.8	Existing road pavement and kerb offset 5.8 metres south-west to be demolished within TPZ. Proposed new water feature offset 5.5 metres west (within footprint of existing road) and associated rip-rap rock retaining wall offset 3 metres west. Excavations for retaining wall foundations within TPZ. No incursion to root zone from water feature due to barrier created by existing kerb line. Proposed roadway (widened) offset 7.1 metres NE at RL 54.20 (close to existing grade) engineered fill for new road pavement within TPZ. Encroachment to TPZ = 9%.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3. Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.6. Place rock associated with water feature above grade with no excavation within TPZ.
96	<i>Magnolia grandiflora</i> (Bullbay Magnolia)	M	10.8	3.2	366.2	Proposed roadway (widened) offset 3.0 metres NE at RL 53.80 (close to existing grade to 400mm above grade) engineered fill & batter for new road pavement within TPZ. Encroachment to TPZ = 31%. Proposed pathway and stairs and associated retaining wall offset 2.0 metres east at RL 53.73 to 52.63 (0.7 metres above grade to at grade) engineered fill & excavations for retaining wall foundations within SRZ.	Proposed works are likely to result in severance of woody roots, resulting in a significant adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3. Undertake all excavations for pavement sub-grade & retaining wall footings within TPZ in accordance with Section 10.6. Use post & caisson wall. Install engineered fill for road pavement in accordance with Section 10.10.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
97	<i>Eucalyptus punctata</i> (Grey Gum)	P	8.4	2.8	221.6	Proposed new paved area offset 3.3 metres south at RL 52.20 (close to existing grade, within footprint of existing pavement & road). Demolition of existing pavement within TPZ. Excavations for new pavement sub-grade within TPZ. Proposed cut-stone seating offset 2.5 metres south. Excavations for seat footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended. No increase to present encroachment. Proposed to be removed (High retention value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
98	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.0	1.8	28.3	Located within footprint of proposed 'Africa Place' Viewing Platform.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
99	<i>Magnolia grandiflora</i> (Bullbay Magnolia)	M	9.6	3.0	289.4	Located within footprint of proposed 'Africa Place' Viewing Platform.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
100	<i>Murraya paniculata</i> (Murraya)	M	3.5	1.8	38.5	Located within footprint of proposed roadway.	Proposed works will necessitate removal.	Remove tree.
101	<i>Phoenix sylvestris</i> (Silver Date Palm)	G	4.8	2.3	72.3	Located within footprint of proposed path & stairs.	Proposed works will necessitate removal.	Proposed to be removed. Consider Relocating (transplanting) elsewhere within the site where space permits.
102	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	9.0	2.5	254.3	Located within footprint of proposed 'Africa Place' Viewing Platform & pathway.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
102a	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.6	1.8	21.9	Located within footprint of proposed 'Africa Place' Viewing Platform & pathway.	Proposed works will necessitate removal (High Retention Value).	Remove tree.
103	<i>Livistona chinensis</i> (Chinese Fan Palm)	G	3.2	1.9	33.0	Located within footprint of proposed 'Africa Place' Viewing Platform.	Proposed works will necessitate removal (High Retention Value).	Proposed to be removed. Consider Relocating (transplanting) elsewhere within the site where space permits.
104	<i>Livistona australis</i> (Cabbage Tree Palm)	G	3.6	2.0	40.7	Located within footprint of proposed 'Africa Place' Viewing Platform & associated retaining wall.	Proposed works will necessitate removal (High Retention Value).	Proposed to be removed. Consider Relocating (transplanting) elsewhere within the site where space permits.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
110	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.4	1.7	18.1	Proposed new roadway offset 0.5 metres west at RL 51.00 - 51.85 (close to grade to 300mm above grade). Excavations for pavement sub-grade within TPZ. Encroachment to TPZ = 38%.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
111	<i>Araucaria cunninghamii</i> (Hoop Pine)	M	13.3	3.5	552.2	Proposed new roadway offset 6.2 metres west to 7.2 metres north at RL 51.00 - 51.85 (close to grade to 300mm above grade). Excavations for pavement sub-grade within TPZ. Encroachment to TPZ = 18%. Proposed enclosure fence offset 1.7 metres SE. Excavations for post footings within TPZ.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this species will tolerate the level of encroachment proposed, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for pavement sub-grade & fence post footings within TPZ in accordance with Section 10.6.
111a	<i>Livistona australis</i> (Cabbage Tree Palm)	G	2.5	1.9	19.9	Proposed enclosure fence offset 1.7 metres SE. Excavations for post footings within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
112a	<i>Livistona australis</i> (Cabbage Tree Palm)	G	2.5	1.9	20.0	Proposed enclosure fence offset 1.7 metres east. Excavations for post footings within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
113	<i>Livistona australis</i> (Cabbage Tree Palm)	G	2.7	2.0	23.3	Proposed enclosure fence offset 1.0 metres NE. Excavations for post footings within TPZ.	No adverse impact.	To be retained - no special tree protection measures required.
113a	<i>Citharexylum spinosum</i> (Fiddlewood)	M	3.5	1.7	38.5	Proposed new Okapi enclosure fence offset 0.9 metres north. Existing GLs maintained. Excavations for fence footings within SRZ/TPZ. Some canopy pruning may be required to clear fenceline.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for new fence post footings within TPZ in accordance with Section 10.6.
114	<i>Araucaria cunninghamii</i> (Hoop Pine)	M	11.9	3.3	443.6	Proposed new Okapi enclosure fence offset 2.2 metres north. Existing GLs maintained. Excavations for fence footings within SRZ/TPZ. Minor canopy pruning may be required to clear fenceline.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for new fence post footings within TPZ in accordance with Section 10.6.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
115	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.5	12.6	Proposed terrace area and associated retaining wall offset 1.2 metres north at RL 53.00 (1.3 metres above grade). Excavations for retaining wall footings within TPZ. Encroachment to TPZ = 12%	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this species will tolerate the level of encroachment proposed. No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for retaining wall foundations within TPZ in accordance with Section 10.6.
116	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.5	1.7	19.4	Proposed terrace area and associated retaining wall offset 0.8 metres north at RL 53.00 (1.3 metres above grade). Excavations for retaining wall footings within TPZ. Encroachment to TPZ = 30%	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in a some adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for retaining wall foundations within TPZ in accordance with Section 10.6.
117	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.0	1.6	12.4	Located within footprint of proposed terrace area at RL 53.00 (1.3 metres above grade). Placement of fill material within TPZ & surrounding trunk. Encroachment to TPZ = 100%.	Proposed works will necessitate removal.	Remove tree.
117a	<i>Nyssa sylvatica</i> (Tupelo)	M	3.5	1.6	38.5	Existing pathway offset 0.5 metres south to be demolished within SRZ/TPZ. Located within Okapi enclosure. Existing GLs within TPZ to be maintained intact.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5.
117b	<i>Lophostemon confertus</i> (Brushbox)	M	2.0	1.4	12.6	Existing pathway offset 1.5 metres north to be demolished within SRZ/TPZ. Located within Okapi enclosure. Existing GLs within TPZ to be maintained intact.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5.
117c	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	4.0	1.8	50.2	Existing pathway offset 1.6 metres NE and roadway/kerb & gutter 2.7 metres south (beyond stone wall) to be demolished within SRZ/TPZ. Located within Okapi enclosure. Existing GLs within TPZ to be maintained intact.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3.
118	<i>Araucaria cunninghamii</i> (Hoop Pine)	M	6.7	2.6	140.4	Existing pathway offset 1.2 metres NE and roadway/kerb & gutter 1.1 metres south (beyond stone wall) to be demolished within SRZ/TPZ. Located within Okapi enclosure. Existing GLs within TPZ to be maintained intact.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
119	<i>Flindersia australis</i> (Crows Foot Ash)	M	4.0	1.9	50.2	Proposed Okapi viewing shelter offset 1.6 metres east at 53.05 (700mm above grade, within footprint of existing pathway). Excavations for pier footings within TPZ. Some canopy pruning may be required to clear viewing area and fenceline. Proposed Okapi enclosure fence offset 0.9 metres east. Excavations for post footings within SRZ/TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3. Undertake all excavations for shelter and fence footings within TPZ in accordance with Section 10.6.
120	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.5	1.7	19.4	Located close to alignment of proposed fenceline & veiwing shelter (< 1 metre).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
121	<i>Flindersia schottiana</i> (Cudgerie)	M	3.0	1.9	28.6	Located close to alignment of proposed fenceline & veiwing shelter (< 1 metre).	Proposed works will necessitate removal.	Remove tree.
122	<i>Acer negundo</i> (Box Elder)	M	5.0	2.2	78.5	Proposed Okapi enclosure fence offset 0.9 metres east. Excavations for post footings within SRZ/TPZ. Existing building offset 3.2 metres NW to be demolished within TPZ. Some canopy pruning may be required to clear viewing area and fenceline.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3. Undertake all excavations for shelter and fence footings within TPZ in accordance with Section 10.6.
123	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.1	1.9	30.1	Proposed new paved area and associated retaining wall offset 0.5 metres NE at RL 53.05 (300mm above grade within footprint of existing path). Excavations for wall foundations within SRZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3. Undertake all excavations for shelter and fence footings within TPZ in accordance with Section 10.6.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
124	<i>Flindersia schottiana</i> (Cudgerie)	M	2.9	1.8	27.2	Located within alignment of proposed fenceline.	Proposed works will necessitate removal.	Remove tree.
125	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.5	28.3	Proposed new paved area and associated retaining wall offset 0.2 metres NE at RL 53.05 (200mm above grade). Excavations for wall foundations within SRZ. Proposed Okapi enclosure fence offset 1.2 metres SW. Excavations for post footings within SRZ/TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5. Install tree protection fence in accordance with Section 10.3. Undertake all excavations for shelter and fence footings within TPZ in accordance with Section 10.6.
126	<i>Flindersia australis</i> (Crows Foot Ash)	M	5.0	1.9	78.5	Located within footprint of proposed new pathway & associated retaining wall.	Proposed works will necessitate removal.	Remove tree.
127	<i>Ficus benjamina</i> (Weeping Fig)	M	4.3	2.2	58.6	Proposed new pathway and associated retaining wall offset 1.3 metres SW at RL 53.00 (1.8 metres below grade). Excavations for wall foundations within SRZ.	Proposed works will necessitate removal.	Remove tree.
128	<i>Aleurites moluccana</i> (Candlenut)	M	4.0	1.9	50.2	Located within footprint of proposed new pathway & associated retaining wall.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
129	<i>Livistona australis</i> (Cabbage Tree Palm)	G	2.5	2.0	19.6	Proposed new pathway offset 1.7 metres south at RL 53.05 (100 mm below grade, within footprint of existing pathway, beyond existing retaining wall). No actual incursion to root zone due to barrier created by existing wall.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all demolition works within TPZ in accordance with Section 10.5.
129a	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.7	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
130	<i>Stenocarpus sinuatus</i> (Queensland Firewheel Tree)	M	2.7	1.8	23.1	No proposed works within TPZ. (existing sandstone wall to NW to be maintained?? - TBC)	No adverse impact	To be retained - no special tree protection measures required.
130a	<i>Harpulia pendula</i> (Tulipwood)	M	2.5	1.5	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
130b	<i>Flindersia schottiana</i> (Cudgerie)	M	2.0	1.3	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
130c	<i>Harpulia pendula</i> (Tulipwood)	M	2.0	1.4	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
131	<i>Ficus sp.</i> (Fig)	M	7.0	2.4	153.9	Proposed new pathway offset 1.5 metres east at RL 55.90 (close to existing grade). Excavations for pavement sub-grade within TPZ/SRZ. Proposed elevated walkway offset 2 metres north at RL 55.90-56.65 (0.3-0.6 metres above grade). Excavations for pier footings within TPZ	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in an adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade within TPZ in accordance with Section 10.6.
132	<i>Livistona australis</i> (Cabbage Tree Palm)	G	3.8	2.0	45.9	Proposed new pathway offset 0.2 metres east at RL 55.90 (close to existing grade). Excavations for pavement sub-grade within TPZ/SRZ. Encroachment to TPZ = 46%	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
132a	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.5	1.4	19.6	Located within footprint of proposed new pathway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
132b	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.0	1.4	12.6	Located within footprint of proposed new pathway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
133	<i>Lophostemon confertus</i> (Brushbox)	M	3.0	1.8	28.3	Proposed new pathway offset 0.5 metres south at RL 55.90 (close to existing grade). Excavations for pavement sub-grade within TPZ/SRZ. Encroachment to TPZ = 33%	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in an adverse impact.	Remove tree.
134	<i>Livistona australis</i> (Cabbage Tree Palm)	G	2.5	1.9	19.6	Proposed new pathway (and associated retaining wall) offset 0.6 metres south at RL 55.90 (0.4 metres below grade). Excavations for pavement sub-grade & wall foundations within TPZ/SRZ. Encroachment to TPZ = 35%	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in an adverse impact.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
134a	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.5	1.6	19.6	Proposed new pathway (and associated retaining wall) offset 0.3 metres south at RL 55.90 (0.4 metres below grade). Excavations for pavement sub-grade & wall foundations within TPZ/SRZ. Encroachment to TPZ = 52%	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in an adverse impact.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
135	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.6	28.3	Proposed new pathway offset 1.4 metres SE at RL 55.80 (300mm below grade) - 56.30 (700mm below grade) - within footprint of existing pathway, beyond existing retaining wall. No actual incursion to root zone due to barrier created by existing wall.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake demolition of existing pathway within TPZ in accordance with Section 10.5.
136	<i>Flindersia schottiana</i> (Cudgerie)	M	3.0	1.7	28.3	Proposed new pathway offset 1.4 metres SE at RL 55.80 (300mm below grade) - 56.30 (700mm below grade) - within footprint of existing pathway, beyond existing retaining wall. No actual incursion to root zone due to barrier created by existing wall.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake demolition of existing pathway within TPZ in accordance with Section 10.5.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
137	<i>Harpulia pendula</i> (Tulipwood)	M	2.4	1.7	17.6	Proposed new pathway offset 1.8 metres SE at RL 55.80 (300mm below grade) - 56.30 (700mm below grade) - within footprint of existing pathway, beyond existing retaining wall to be demolished. No actual incursion to root zone due to barrier created by existing wall.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake demolition of existing pathway within TPZ in accordance with Section 10.5.
138	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.8	28.3	Proposed new pathway offset 2.7 metres SE at RL 55.80 (300mm below grade) - 56.30 (700mm below grade) - within footprint of existing pathway, beyond existing retaining wall to be demolished. No actual incursion to root zone due to barrier created by existing wall.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake demolition of existing pathway within TPZ in accordance with Section 10.5.
139	<i>Ficus microcarpa var. hillii</i> (Hill's Weeping Fig)	M	4.0	2.0	50.2	Proposed new pathway offset 3.6 metres SE at RL 55.80 (300mm below grade) - 56.30 (700mm below grade) - within footprint of existing pathway, beyond existing retaining wall to be demolished. No actual incursion to root zone due to barrier created by existing wall. Proposed new elevated walkway offset 1.4 metres NW at RL 58.15-58.50 (0.8-1.3 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake demolition of existing pathway within TPZ in accordance with Section 10.5.
140	<i>Flindersia schottiana</i> (Cudgerie)	M	4.5	2.0	63.6	Proposed new elevated walkway offset 0.5 metres NW at RL 58.15-58.50 (0.8-1.3 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended. NB minimal clearance for future growth.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
141	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.7	28.3	Located within footprint of proposed elevated walkway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
141a	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.0	1.5	12.6	Located within footprint of proposed elevated walkway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
142	<i>Sapium sebiferum</i> (Chinese Tallow tree)	M	2.8	1.8	23.8	Located within footprint of proposed elevated walkway.	Proposed works will necessitate removal.	Remove tree.
143	<i>Flindersia australis</i> (Crows Foot Ash)	M	4.0	1.9	50.2	Located within footprint of proposed elevated walkway.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
144	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	M	3.0	1.6	28.3	Proposed new elevated walkway offset 1.3 metres SE at RL 58.15-58.50 (0.8-1.3 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
145	<i>Flindersia australis</i> (Crows Foot Ash)	M	4.0	1.8	50.2	Proposed new elevated walkway offset 2.1 metres SW at RL 58.15-58.50 (0.8-1.3 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
146	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	5.0	2.2	78.5	Located within footprint of proposed viewing shelter.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
146a	<i>Schefflera</i> sp. (Umbrella Tree)	M	2.1	1.6	13.9	Located within footprint of proposed viewing shelter.	Proposed works will necessitate removal.	Remove tree.
147	<i>Aleurites moluccana</i> (Candlenut)	M	3.5	2.0	38.0	Located within footprint of proposed viewing shelter.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
148	<i>Flindersia schottiana</i> (Cudgerie)	M	3.1	1.9	30.8	Located within footprint of proposed viewing shelter (roof).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
148a	<i>Aleurites moluccana</i> (Candlenut)	M	2.5	1.6	19.6	Located within footprint of proposed viewing shelter (roof).	Proposed works will necessitate removal.	Remove tree.
149	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.0	1.5	12.6	Located within footprint of proposed viewing shelter (roof).	Proposed works will necessitate removal.	Remove tree.
150	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	8.4	2.8	221.6	Proposed new elevated walkway offset 3.9 metres NW at RL 59.59-60.18 (0.5 metres above grade). Excavations for pier footings within TPZ. Proposed viewing platform offset 2.4 metres south at RL 58.59 (150-300mm above grade, beyond existing retaining wall). Excavations for pier footings within TPZ. No actual incursion to root zone. Some canopy pruning may be required to clear shelter.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning (to clear shelter) in accordance with Section 10.12.
151	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	7.0	2.4	153.9	Proposed viewing platform offset 2.2 metres west at RL 58.59 (150-300mm above grade, beyond existing retaining wall). Excavations for pier footings within TPZ. No actual incursion to root zone.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
152	<i>Flindersia schottiana</i> (Cudgerie)	M	4.3	2.1	57.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
153	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.0	1.5	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
154	<i>Flindersia australis</i> (Crows Foot Ash)	M	4.0	1.5	50.2	Proposed viewing platform offset 2.8 metres west at RL 58.59 (150-300mm above grade, beyond existing retaining wall). Excavations for pier footings within TPZ. No actual incursion to root zone.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
155	<i>Flindersia schottiana</i> (Cudgerie)	M	3.6	2.0	40.7	Proposed enclosure fence offset 2.0 metres south. Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
155a	<i>Alphitonia sp.</i> (Red Ash)	M	2.5	1.4	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
155b	<i>Alphitonia sp.</i> (Red Ash)	M	2.5	1.4	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
155c	<i>Flindersia schottiana</i> (Cudgerie)	M	2.5	1.5	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
156	<i>Flindersia schottiana</i> (Cudgerie)	M	3.5	1.8	38.5	Proposed new path/road & associated retaining wall offset 2.9 metres SE at RL 56.90 (400mm below grade) to 57.30 (500mm below grade, within footprint of existing pathway). Excavations for pavement sub-grade & wall foundations within SRZ/TPZ. Minor encroachment to TPZ. Some canopy pruning may be required to clear fenceline.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for roadpavement and retaining wall foundations within TPZ in accordance with Section 10.6.
156a	<i>Michelia champaca</i> (Golden Champa)	M	2.0	1.5	12.6	Proposed enclosure fence and retaining wall offset 0.7 metres south. Excavations for fence footings within TPZ/SRZ. Some canopy pruning may be required to clear fenceline.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning (to clear shelter) in accordance with Section 10.12.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
156b	<i>Flindersia schottiana</i> (Cudgerie)	M	4.0	1.8	50.2	Proposed new path/road offset 0.8 metres south at RL 57.50 (100mm above grade, within footprint of existing paved area). Excavations for pavement sub-grade within SRZ/TPZ. Proposed enclosure fence and retaining wall offset 1.1 metres north. Excavations for retaining wall foundations within TPZ/SRZ.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in an adverse impact.	undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
157	<i>Ficus religiosa</i> (Sacred Fig)	M	6.6	2.6	136.8	Proposed new path/road & associated retaining wall offset 6.3 metres SE at RL 56.90 (400mm below grade) to 57.30 (500mm below grade). Excavations for pavement sub-grade & wall foundations within SRZ/TPZ. Encroachment to TPZ = 5%.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pavement sub-grade and wall footings within TPZ in accordance with Section 10.6.
157a	<i>Alphitonia sp.</i> (Red Ash)	M	2.5	1.7	19.6	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
158	<i>Ficus benjamina</i> (Weeping Fig)	M	4.2	2.1	55.4	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
159	<i>Flindersia schottiana</i> (Cudgerie)	M	4.5	2.2	62.8	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
160	<i>Flindersia schottiana</i> (Cudgerie)	M	4.0	1.9	50.2	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
160a	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	M	2.3	1.7	16.5	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
161	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.6	1.7	20.6	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
162	<i>Flindersia schottiana</i> (Cudgerie)	M	3.0	1.8	28.3	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
163	<i>Toona ciliata</i> (Red Cedar)	M	3.0	1.5	28.3	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
164	<i>Harpulia pendula</i> (Tulipwood)	M	3.5	1.5	38.5	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
165	<i>Flindersia schottiana</i> (Cudgerie)	M	3.4	1.9	35.5	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
165a	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.5	1.6	19.6	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
165b	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.5	1.4	19.6	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
166	<i>Flindersia schottiana</i> (Cudgerie)	M	3.5	1.9	38.5	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
166a	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.0	1.4	12.6	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
167	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.8	28.3	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
168	<i>Olea europaea subsp. africana</i> (African Olive)	M	5.0	2.0	78.5	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
169	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.0	1.6	12.4	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
169a	<i>Flindersia australis</i> (Crows Foot Ash)	M	1.5	1.3	7.1	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
170	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.3	1.7	17.1	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
171	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.0	1.5	12.6	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
172	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.8	27.9	No proposed works within TPZ. Located within Gorilla enclosure.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
173	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	6.0	2.5	113.0	Proposed Gorilla viewing area offset 2.3 metres north at RL 59.30 (2.5 metres below grade). Excavations for wall foundations within SRZ.	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
174	<i>Olea europaea subsp. africana</i> (African Olive)	M	2.5	1.7	19.6	Located within footprint of proposed tunnel (below ground Gorilla viewing area).	Proposed works will necessitate removal	Remove tree.
175	<i>Olea europaea subsp. africana</i> (African Olive)	M	4.5	1.8	63.6	Located within footprint of proposed tunnel (below ground Gorilla viewing area).	Proposed works will necessitate removal	Remove tree.
175a	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.8	28.3	Located within footprint of proposed tunnel (below ground Gorilla viewing area).	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
175b	<i>Olea europaea subsp. africana</i> (African Olive)	M	2.5	1.5	19.6	Located within footprint of proposed tunnel (below ground Gorilla viewing area).	Proposed works will necessitate removal	Remove tree.
176	<i>Ficus benjamina</i> (Weeping Fig)	M	7.0	2.5	153.9	Located within footprint of proposed tunnel (below ground Gorilla viewing area).	Proposed works will necessitate removal (High retention value)	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
177	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.8	28.3	Located within footprint of proposed tunnel (below ground Gorilla viewing area).	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
177a	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.4	28.3	Proposed new service vehicle area and associated retaining wall offset 0.7 metres NW (within footprint of existing wall & ramp). No increase in current encroachment to TPZ. Substantial pruning required to clear vehicle access.	Proposed works will necessitate removal	Remove tree.
178	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	7.2	2.7	162.8	Proposed new service vehicle area and associated retaining wall offset 0.7 metres NW (within footprint of existing wall & ramp). No increase in current encroachment to TPZ. Substantial pruning required to clear vehicle access.	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
178a	<i>Flindersia australis</i> (Crows Foot Ash)	M	3.0	1.7	28.3	Area within TPZ to be regraded for Gorilla enclosure.	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
178b	<i>Flindersia australis</i> (Crows Foot Ash)	M	2.2	1.6	15.4	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
179	<i>Ficus coronata</i> (Sandpaper Fig)	M	2.5	1.7	19.6	Proposed Gorilla enclosure fence offset 1.2 metres SE. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear fenceline.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required pruning to clear fenceline in accordance with Section 10.12.
180	<i>Schefflera arboricola</i> (Umbrella Plant)	M	3.6	2.0	40.7	Proposed viewing shelter offset 3 metres SE at RL 58.15 (close to existing grade). Minor encroachment to TPZ (<5%).	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10).

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
181	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.6	1.7	21.2	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
181a	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.6	2.0	40.7	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
181b	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.2	1.9	33.0	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
181c	<i>Unidentified sp</i> (Curly pods)	M	2.5	1.5	19.6	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
181d	<i>Unidentified sp</i> (Curly pods)	M	2.0	1.5	12.6	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
181e	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.2	1.6	14.9	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
182	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	6.5	2.8	132.7	Existing retaining wall and roadway offset 1.5 metres north (to be demolished?) within TPZ. Proposed new retaining wall and road offset 4.2 metres north (within footprint of existing road). Reduction in current encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5.
182a	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	3.6	2.0	41.4	Existing retaining wall and roadway offset 1.5 metres north (to be demolished?) within TPZ. Proposed new retaining wall and road offset 3.5 metres north (within footprint of existing road). Reduction in current encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5.
183	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	3.0	1.6	28.3	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
183a	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	2.0	1.4	12.6	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
184	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	4.2	2.1	55.5	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
185	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	4.8	2.2	71.7	Existing retaining wall and roadway offset 1.8 metres north (to be demolished?) within TPZ. Proposed new retaining wall and road offset 2.7 metres north (within footprint of existing road). Reduction in current encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5. Undertake excavations for new retaining wall foundations within TPZ in accordance with Section 10.6.
186	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	4.2	2.1	56.5	Proposed new service vehicle area and associated retaining wall offset 3 metres NW (within footprint of existing wall & ramp). No increase in current encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5. Undertake excavations for new retaining wall foundations within TPZ in accordance with Section 10.6.
187	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	6.0	2.5	113.0	Proposed new service vehicle area and associated retaining wall offset 4 metres NW (within footprint of existing wall & ramp). No increase in current encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5. Undertake excavations for new retaining wall foundations within TPZ in accordance with Section 10.6.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
188	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	4.6	2.2	66.0	Proposed new service vehicle area and associated retaining wall offset 2.1 metres NW (within footprint of existing wall & ramp). No increase in current encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5. Undertake excavations for new retaining wall foundations within TPZ in accordance with Section 10.6.
189	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	3.0	1.7	28.3	Proposed new service vehicle area and associated retaining wall offset 0.7 metres NW (within footprint of existing wall & ramp). No increase in current encroachment to TPZ. Substantial pruning required to clear vehicle access.	Proposed works will necessitate removal	Remove tree.
190	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	4.0	1.9	50.2	Proposed new service vehicle area and associated retaining wall offset 0.7 metres NW (within footprint of existing wall & ramp). No increase in current encroachment to TPZ. Substantial pruning required to clear vehicle access.	Proposed works will necessitate removal	Remove tree.
191	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	5.0	2.3	77.5	Existing retaining wall and roadway offset 1.2 metres east (to be demolished?) within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5.
192	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	4.8	2.2	71.7	Existing retaining wall and roadway offset 1.9 metres east (to be demolished?) within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5.
193	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	2.8	1.8	23.8	Existing retaining wall and roadway offset 2.1 metres NE (to be demolished?) within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5.
194	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	6.0	2.5	113.0	Existing retaining wall and roadway offset 0.7 metres NE (to be demolished?) within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
195	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	2.1	1.6	14.4	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required. Maintain existing ground level changes within TPZ.
196	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	6.2	2.5	122.3	Existing retaining wall and roadway offset 1.0 metres NE (to be demolished?) within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required demolition works within TPZ in accordance with Section 10.5.
197	<i>Agonis flexuosa</i> (WA Willow Myrtle)	M	3.0	1.8	28.3	Located within footprint of Gorilla enclosure Back of House (BOH) area/building (service vehicle ramp)	Proposed works will necessitate removal (High Retention Value).	Remove tree.
198	<i>Casuarina glauca</i> (Swamp Oak)	M	5.0	2.3	78.7	Located within footprint of Gorilla enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
199	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	M	3.0	1.8	28.3	Located within footprint of Gorilla enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal	Remove tree.
200	<i>Callistemon salignus</i> (Willow Bottlebrush)	M	3.2	1.9	33.0	Located within footprint of service entry to new Gorilla enclosure.	Proposed works will necessitate removal	Remove tree.
201	<i>Callistemon salignus</i> (Willow Bottlebrush)	M	3.8	2.1	46.3	Located within footprint of service entry to new Gorilla enclosure.	Proposed works will necessitate removal	Remove tree.
220	<i>Livistona australis</i> (Cabbage Tree Palm)	G	3.0	1.8	28.3	Proposed new elevated walkway offset 0.5 metres NE at RL 60.15 - 59.42 (3 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
221	<i>Livistona chinensis</i> (Chinese Fan Palm)	G	3.0	1.8	28.3	Proposed new water feature offset 2.5 metres SE at WL 53.00 (within footprint of existing building to be demolished. Minor encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for water feature within TPZ in accordance with Section 10.6. Undertake demolition of existing building within TPZ in accordance with Section 10.5.
222	<i>Waterhousea floribunda</i> (Weeping Lillypilly)	M	8.0	2.5	201.0	Proposed new water feature offset 6.4 metres SE at WL 53.00 (within footprint of existing building to be demolished). Minor encroachment to TPZ. Proposed first aid and cleaning store offset 3.5 metres south (within footprint of existing stairwell to be demolished).	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for water feature within TPZ in accordance with Section 10.6. Undertake demolition of existing building within TPZ in accordance with Section 10.5.
223	<i>Livistona australis</i> (Cabbage Tree Palm)	G	2.5	1.7	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
224	<i>Livistona chinensis</i> (Chinese Fan Palm)	G	3.2	1.9	33.0	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
225	<i>Livistona australis</i> (Cabbage Tree Palm)	G	3.6	2.0	40.7	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
226	<i>Livistona chinensis</i> (Chinese Fan Palm)	G	3.2	1.9	33.0	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
227	<i>Livistona australis</i> (Cabbage Tree Palm)	G	3.0	1.8	28.3	Proposed first aid and cleaning store offset 1.4 metres south (partly within footprint of existing stairwell to be demolished). Encroachment to TPZ = 20%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, this species will tolerate the extent of encroachment proposed.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing stairwell in accordance with Section 10.5. Undertake all excavations for new building foundations within TPZ in accordance with Section 10.6.
228	<i>Aleurites moluccana</i> (Candlenut)	M	4.0	1.9	50.2	Located within footprint of proposed new first aid and cleaning store	Proposed works will necessitate removal	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
229	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.4	2.4	91.6	Proposed new elevated walkway offset 2.0 metres NE at RL 57.40-58.15 (2.4 metres above grade -1.2 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
230	<i>Aleurites moluccana</i> (Candlenut)	M	4.2	2.1	55.4	Proposed new elevated walkway offset 3.0 metres NE at RL 57.40-58.15 (2.4 metres above grade -1.2 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
231	<i>Ficus sp.</i> (Fig)	M	4.0	1.8	50.2	Proposed new elevated walkway offset 1.0 metres NE at RL 57.40-58.15 (2.4 metres above grade -1.2 metres above grade). Excavations for pier footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all excavations for pier footings within TPZ in accordance with Section 10.6.
232	<i>Aleurites moluccana</i> (Candlenut)	M	4.0	1.8	50.2	Proposed new elevated walkway offset 0.2 metres NE at RL 57.40-58.15 (2.4 metres above grade -1.2 metres above grade). Excavations for pier footings within TPZ.	Proposed works will necessitate removal	Remove tree.
233	<i>Ficus sp.</i> (Fig)	M	2.6	1.8	21.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
300	<i>Phoenix canariensis</i> (Canary Island Palm)	G	5.0	2.7	78.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
300a	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
300b	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.6	1.8	21.9	Proposed new fence to airlock (lion enclosure) offset 0.6 metres east. Excavations for post footings within TPZ. New service entry offset 0.6 metres east at RL 55.00 (close to existing grade).	Proposed works will necessitate removal	Remove tree.
301	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.6	19.6	Located within footprint of new service gate/entry/airlock to Lion enclosure (Lions 1)	Proposed works will necessitate removal	Remove tree.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
302	<i>Pittosporum undulatum</i> (Native Daphne)	M	1.9	1.5	11.5	Located within footprint of new service gate/entry/airlock to Lion enclosure (Lions 1)	Proposed works will necessitate removal	Remove tree.
303	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	2.4	1.7	18.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
304	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	3.6	2.0	40.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
305	<i>Eucalyptus maidenii</i> (Maiden's Gum)	P	9.6	3.0	289.4	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
306	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	7.5	2.4	176.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
307	<i>Eucalyptus maidenii</i> (Maiden's Gum)	P	7.8	2.8	191.0	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
307a	<i>Syzygium paniculatum</i> (Magenta Cherry)	M	1.5	1.0	7.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
308	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	10.2	3.1	326.7	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
309	<i>Strelitzia nicolai</i> (Giant White Bird of Paradise)	G	1.5	1.5	7.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
310	<i>Eucalyptus punctata</i> (Grey Gum)	P	7.0	2.5	153.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
311	<i>Eucalyptus punctata</i> (Grey Gum)	P	3.0	1.8	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
312	<i>Hibiscus tiliaceus</i> (Coastal Cottonwood)	M	3.5	1.7	38.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
313	<i>Polyscias elegans</i> (Celery Wood)	M	2.4	1.7	18.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
314	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
315	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.4	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
316	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.5	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
317	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.6	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
318	<i>Celtis sinensis</i> (Chinese Hackberry)	M	2.5	1.7	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
318a	<i>Phoenix canariensis</i> (Canary Island Palm)	G	5.0	2.7	78.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
319	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	6.0	2.4	113.0	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
319a	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	3.8	2.1	46.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
319b	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	5.4	2.4	91.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
320	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	3.0	1.6	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
321	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.5	1.7	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
322	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	3.0	1.7	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
323	<i>Eucalyptus microcorys</i> (Tallowwood)	P	7.8	2.8	192.7	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
324	<i>Celtis sinensis</i> (Chinese Hackberry)	M	7.0	2.4	153.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
325	<i>Eucalyptus maidenii</i> (Maiden's Gum)	P	8.4	2.8	221.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
326	<i>Morus nigra</i> (Mulberry tree)	M	2.6	1.8	21.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
327	<i>Eucalyptus microcorys</i> (Tallowwood)	P	4.5	2.2	62.8	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
328	<i>Eucalyptus sp.</i> (Eucalypt)	P	7.2	2.7	162.8	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
329	<i>Phoenix canariensis</i> (Canary Island Palm)	G	5.0	2.7	78.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
329a	<i>Phoenix canariensis</i> (Canary Island Palm)	G	5.0	2.7	78.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
330	<i>Eucalyptus botryoides</i> (Bangalay)	P	5.4	2.4	92.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
331	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	3.2	1.9	31.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
332	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	4.1	2.1	51.5	Proposed new enclosure fence offset 1.6 metres south-east. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear fence line.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
333	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	4.7	2.2	68.3	Proposed new enclosure fence offset 1.3 metres NW. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear fence line.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
334	<i>Eucalyptus microcorys</i> (Tallowwood)	P	3.0	1.7	28.3	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
335	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.6	19.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
336	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	7.0	2.5	153.9	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
336a	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	4.5	2.1	63.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
336b	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.0	1.8	28.3	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
336c	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	Proposed viewing platform offset 0.9 metres south-west at RL 52.36 (600mm below grade). Excavations for platform foundations within SRZ.	Proposed works will necessitate removal	Remove tree.
336d	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	7.2	2.7	162.8	Proposed viewing platform offset 4.3 metres south-west at RL 52.36 (600mm below grade). Excavations for platform foundations within TPZ. No actual incursion to root zone due to barrier created by existing rock outcrop.	No adverse impact	To be retained - no special tree protection measures required.
337	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.6	2.0	40.7	Proposed viewing platform offset 0.3 metres south-west.	Proposed works will necessitate removal. Insufficient space available for future growth and development.	Remove tree.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
338	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	4.5	2.0	63.6	Proposed viewing platform offset 3.2 metres south-west at RL 52.36 (1.8 m below grade). Excavations for platform foundations within TPZ. No actual incursion to root zone due to barrier created by existing rock outcrop.	No adverse impact	To be retained - no special tree protection measures required.
339	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.2	1.9	33.0	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
340	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	4.8	2.3	72.3	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
341	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	2.5	1.7	19.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
342	<i>Eucalyptus sp.</i> (Eucalypt)	P	3.8	2.0	45.9	No proposed works within TPZ	No adverse impact	Remove tree (indicated for retention on landscape plan). NB Dead tree.
343	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.9	2.1	46.8	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
344	<i>Lophostemon confertus</i> (Brushbox)	M	5.1	2.3	81.1	Proposed new enclosure fence offset 1.0 metres west. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear fence line.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
345	<i>Pittosporum undulatum</i> (Native Daphne)	M	4.0	2.1	50.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
346	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.2	1.9	33.1	Proposed new enclosure fence offset 0.4 metres east. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear fence line.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
347	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	4.5	2.0	63.6	Proposed new enclosure fence offset 0.7 metres east. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear fence line.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
348	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.0	1.4	12.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
349	<i>Pittosporum undulatum</i> (Native Daphne)	M	1.5	1.2	7.1	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
350	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
351	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.4	12.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
352	<i>Pittosporum undulatum</i> (Native Daphne)	M	1.5	1.2	7.1	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
353	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.0	1.5	12.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
354	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.0	1.5	12.6	Located within alignment of proposed fence for Lion enclosure.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
355	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	1.5	1.4	7.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
356	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	3.0	1.8	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
357	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.0	1.7	28.3	Proposed new enclosure fence offset 0.7 metres east. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
358	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.7	20.0	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
359	<i>Pittosporum undulatum</i> (Native Daphne)	M	1.5	1.3	7.1	Proposed viewing platform offset 0.1 metres north east at RL 52.36 (3 metres above grade). Excavations for platform foundations within SRZ.	Proposed works will necessitate removal	Remove tree.
360	<i>Banksia integrifolia</i> (Coast Banksia)	M	1.5	1.0	7.1	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
361	<i>Banksia integrifolia</i> (Coast Banksia)	M	1.5	1.3	7.1	Proposed viewing platform offset 0.5 metres north east at RL 52.36 (3 metres above grade). Excavations for platform foundations within SRZ.	Proposed works will necessitate removal	undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
362	<i>Banksia integrifolia</i> (Coast Banksia)	M	1.5	1.0	7.1	Proposed viewing platform offset 0.5 metres north east at RL 52.36 (3 metres above grade). Excavations for platform foundations within SRZ.	Proposed works will necessitate removal	Remove tree.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
363	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	1.7	1.4	8.9	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
364	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.2	1.6	15.4	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
365	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
366	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
367	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
368	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.6	19.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
369	<i>Pittosporum undulatum</i> (Native Daphne)	M	1.5	1.2	7.1	Located within alignment of proposed fence for Lion enclosure.	Proposed works will necessitate removal.	Remove tree (indicated for retention on landscape plan).
370	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.5	12.6	Proposed new enclosure fence offset 1.1 metres west. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
371	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.4	1.7	18.1	Proposed new enclosure fence offset 0.4 metres west. Excavations for post footings within SRZ/TPZ. Substantial canopy pruning is likely to be required to clear the fence line.	Proposed works will necessitate removal.	Remove tree (indicated for retention on landscape plan).
372	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.4	1.7	18.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
373	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.5	1.9	38.5	Proposed new enclosure fence offset 1.6 metres east. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
374	<i>Acacia sp.</i> (Wattle)	M	2.6	1.8	21.9	Proposed new enclosure fence offset 0.6 metres west. Excavations for post footings within SRZ/TPZ. Substantial canopy pruning is likely to be required to clear the fence line.	Proposed works will necessitate removal.	Remove tree.
375	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.7	19.6	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
375a	<i>Acacia sp.</i> (Wattle)	M	2.5	1.5	19.6	Proposed new enclosure fence offset 1.5 metres east. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
376	<i>Pittosporum undulatum</i> (Native Daphne)	M	4.6	2.2	66.0	Proposed new enclosure fence offset 1.1 metres east. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
376a	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.7	1.8	22.9	Proposed new enclosure fence offset 1.3 metres SW. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
377	<i>Eucalyptus sp.</i> (Eucalypt)	P	6.0	2.5	113.0	No proposed works within TPZ. Located within Lion enclosure.	No adverse impact	Remove tree. NB Dead tree.
378	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	3.0	1.8	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
379	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.0	1.7	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
380	<i>Eucalyptus punctata</i> (Grey Gum)	P	9.0	2.5	254.3	Proposed new enclosure fence offset 3.1 metres north. Excavations for post footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6.
380a	<i>Pittosporum undulatum</i> (Native Daphne)	M	1.9	1.5	11.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
381	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.7	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
382	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	M	1.9	1.5	11.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
383	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.0	1.4	12.6	Proposed new enclosure fence offset 1.0 metres north. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
383a	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	1.5	1.3	7.1	Located within alignment of proposed fence for Lion enclosure.	Proposed works will necessitate removal.	Remove tree.
383b	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.5	1.7	19.4	Proposed new enclosure fence offset 1.3 metres west. Excavations for post footings within SRZ/TPZ. Some canopy pruning is likely to be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
384	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.6	19.6	Proposed viewing platform offset 1.3 metres SE at RL 50.14 (6 metres above grade). Some canopy pruning may be required to facilitate construction.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for fence post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12.
385	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	4.0	2.1	50.2	Located within footprint of proposed viewing platform.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
386	<i>Pittosporum undulatum</i> (Native Daphne)	M	4.2	2.1	55.4	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
387	<i>Eucalyptus maidenii</i> (Maiden's Gum)	P	8.0	2.8	200.3	Existing viewing platform offset 1.0 metres north to be demolished within SRZ/TPZ.	No adverse impact, provided that all proposed works are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing raised walkway in accordance with Section 10.5.
387a	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.4	1.7	18.1	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
388	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.6	2.0	40.7	No proposed works within TPZ (existing ground levels and rock outcrop within TPZ maintained intact)	No adverse impact	To be retained - no special tree protection measures required.
389	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.8	2.1	46.3	Proposed viewing platform offset 1.6 metres SW at RL 49.50 (6 metres above grade) and 2.6 metres west at RL 49.50. Some canopy pruning may be required to facilitate construction.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for platform post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear platform in accordance with Section 10.12.
390	<i>Eucalyptus punctata</i> (Grey Gum)	P	5.4	2.4	91.6	Located in close proximity to proposed viewing platform (< 1 metres north & west).	Proposed works will necessitate removal.	Remove tree. NB Dead tree.
391	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	M	3.6	2.0	40.7	Proposed viewing platform offset 3 metres NE at RL 49.50. Excavations for post support footings within TPZ. Minor encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for platform post footings within TPZ in accordance with Section 10.6.
392	<i>Eucalyptus punctata</i> (Grey Gum)	P	3.5	2.0	38.8	Located in close proximity to proposed viewing platform (< 1 metres north & west).	Proposed works will necessitate removal.	Remove tree. NB Dead tree.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
393	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.5	2.0	38.0	Proposed viewing platform offset 0.3 metres NE (roof) at RL 49.50 (8 metres above grade). Excavations for post support footings within TPZ. Substantial canopy pruning is likely to be required to facilitate construction.	Proposed works will necessitate removal.	undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
394	<i>Elaeocarpus reticulatus</i> (Blueberry Ash)	M	1.5	1.3	7.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
395	<i>Pittosporum undulatum</i> (Native Daphne)	M	2.5	1.5	19.6	Proposed viewing platform offset 0.6 metres NE at RL 49.50 (8 metres above grade). Excavations for post support footings within TPZ. Substantial canopy pruning is likely to be required to facilitate construction.	Proposed works will necessitate removal.	Remove tree.
396	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	M	2.0	1.5	12.6	Proposed viewing platform offset 0.8 metres south at RL 49.50 (7 metres above grade). Excavations for post support footings within TPZ. Some canopy pruning may be required to facilitate construction.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
397	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	2.0	1.4	12.6	Located within footprint of proposed viewing platform.	Proposed works will necessitate removal.	Remove tree.
398	<i>Pittosporum undulatum</i> (Native Daphne)	M	5.2	2.3	83.6	Proposed viewing platform offset 2.2 metres south-west at RL 49.50 (7 metres above grade). Excavations for post support footings within TPZ. Some canopy pruning may be required to facilitate construction.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for platform post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear platform in accordance with Section 10.12.
399	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	6.5	2.5	132.7	Existing elevated walkway offset 1.1 metres NE to be demolished within TPZ/SRZ. Existing ground levels within TPZ to be maintained intact.	No adverse impact, provided that all proposed works are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing raised walkway in accordance with Section 10.5.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
400	<i>Polyscias elegans</i> (Celery Wood)	M	2.5	1.6	19.6	Proposed viewing platform offset 0.4 metres south at RL 49.25 (6 metres above grade). Excavations for post support footings within TPZ. Some canopy pruning may be required to facilitate construction.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for platform post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear platform in accordance with Section 10.12.
401	<i>Unidentified sp</i> (Oak-leaf)	M	1.5	1.3	7.1	Located within footprint of proposed viewing platform.	Proposed works will necessitate removal.	Remove tree.
402	<i>Howea forsteriana</i> (Kentia Palm)	G	2.5	1.5	19.6	Located within footprint of proposed viewing platform.	Proposed works will necessitate removal.	undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
403	<i>Magnolia grandiflora</i> (Bullbay Magnolia)	M	3.1	1.9	30.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
404	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	3.5	1.8	38.5	Proposed elevated ramp offset 1.0 metres west at RL? (3-4 metres above grade). Excavations for post support footings within TPZ. Some canopy pruning may be required to facilitate construction.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for platform post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear platform in accordance with Section 10.12.
405	<i>Ceratopetalum gummiferum</i> (NSW Christmas Bush)	M	3.0	1.5	28.3	Proposed elevated ramp offset 1.5 metres west at RL? (3-4 metres above grade). Excavations for post support footings within TPZ. Some canopy pruning may be required to facilitate construction.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for platform post footings within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear platform in accordance with Section 10.12.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
406	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.0	1.8	28.3	Located within footprint of proposed viewing platform.	Proposed works will necessitate removal.	undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
407	<i>Casuarina cunninghamiana</i> (River Oak)	M	1.8	1.5	10.2	No proposed works within TPZ. Located within Lion enclosure.	No adverse impact	To be retained - no special tree protection measures required.
407a	<i>Casuarina cunninghamiana</i> (River Oak)	M	3.5	2.0	38.0	No proposed works within TPZ. Located within Lion enclosure.	No adverse impact	To be retained - no special tree protection measures required.
408	<i>Casuarina cunninghamiana</i> (River Oak)	M	1.5	1.4	7.1	No proposed works within TPZ. Located within Lion enclosure.	No adverse impact	To be retained - no special tree protection measures required.
409	<i>Casuarina cunninghamiana</i> (River Oak)	M	4.0	1.9	50.2	Located within alignment of proposed fence for Lion enclosure.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
410	<i>Eucalyptus microcorys</i> (Tallowwood)	P	4.5	1.8	63.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
411	<i>Banksia integrifolia</i> (Coast Banksia)	M	3.8	2.1	46.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
412	<i>Syagrus romanzoffianum</i> (Cocos Palm)	G	3.6	2.0	40.7	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
413	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	4.2	2.1	55.4	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
414	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	12.0	3.3	452.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
415	<i>Casuarina glauca</i> (Swamp Oak)	M	4.1	2.1	52.5	Located within footprint of Lion enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
416	<i>Casuarina glauca</i> (Swamp Oak)	M	5.2	2.3	83.6	Located within footprint of Lion enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.
417	<i>Casuarina glauca</i> (Swamp Oak)	M	2.4	1.7	18.1	Located within footprint of Lion enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.
418	<i>Casuarina glauca</i> (Swamp Oak)	M	1.5	1.0	7.1	Located within footprint of Lion enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.
419	<i>Pittosporum rhombifolium</i> (Queenland Pittosporum)	M	2.4	1.7	18.1	Proposed Lion enclosure Back of House (BOH) area/building offset 0.7 metres south at RL (FFL) 56.68 (500mm above grade). Excavations for building foundations within SRZ/TPZ. Substantial canopy pruning required to clear building envelope.	Proposed works will necessitate removal.	Remove tree (indicated for retention on landscape plan).
420	<i>Casuarina glauca</i> (Swamp Oak)	M	1.5	1.1	7.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
421	<i>Pittosporum rhombifolium</i> (Queenland Pittosporum)	M	2.0	1.4	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
422	<i>Eucalyptus sp. [punctata]</i> (Grey Gum)	P	2.5	1.5	19.6	Located close to footprint of proposed viewing platform.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
423	<i>Eucalyptus sp. [punctata]</i> (Grey Gum)	P	2.0	1.5	12.6	Existing stone wall offset 1.0 metres north to be demolished within TPZ. Proposed new rip-rap rock retaining wall offset 1.0 metres north (within footprint of existing wall). Excavations for wall foundations within TPZ/SRZ. Encroachment to TPZ = 15%	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for rock wall within TPZ in accordance with Section 10.6. Demolish existing stone wall within TPZ in accordance with Section 10.5.
424	<i>Unidentified sp</i>	P	2.0	2.0	12.6	Located within footprint of proposed Lion Back of House (BOH) building	Proposed works will necessitate removal.	Remove tree.
425	<i>Unidentified sp</i>	P	2.0	2.0	12.6	Located within footprint of proposed Lion Back of House (BOH) building	Proposed works will necessitate removal.	Remove tree.
426	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.2	1.9	33.0	Proposed Lion enclosure Back of House (BOH) area/building offset 2.2 metres south at RL (FFL) 56.68 (200mm above grade). Excavations for building foundations within TPZ. Substantial canopy pruning required to clear building envelope. Existing stone seating bays to be demolished within SRZ.	Proposed works will necessitate removal.	Remove tree.
427	<i>Ficus macrophylla</i> (Moreton Bay Fig)	M	7.2	2.7	162.8	Existing ground levels re-contoured within TPZ. Substantial ground level changes within TPZ. Encroachment to TPZ = 90%. Placement of large retaining rock (rip-rap wall) within TPZ (beneath canopy)	Given very limited root plate of this tree the proposed works are unlikely to result in any adverse impact, provided that all works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all cut and fill for re-grading within TPZ in accordance with Section 10.6. Demolish existing pavements and structures within TPZ in accordance with Section 10.5.
428	<i>Kigelia africana</i> (Sausage Tree)	M	5.5	2.4	95.0	Existing ground levels re-contoured within TPZ. Some non-engineered fill and rock placement within TPZ. Encroachment to TPZ = 15%.	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake all cut and fill for re-grading within TPZ in accordance with Section 10.6. Demolish existing pavements and structures within TPZ in accordance with Section 10.5.
429	<i>Ligustrum lucidum</i> (Broad Leaf Privet)	M	2.5	1.5	19.6	No proposed works within TPZ	No adverse impact	Remove tree (Noxious Weed).

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
429a	<i>Trachycarpus fortunei</i> (Chinese Windmill Palm)	G	2.4	1.7	18.1	Proposed new elevated walkway / viewing platform offset 1.2 metres SE at RL 49.25 (1.25 metres above grade). Excavations for post footings within TPZ. Existing elevated walkway offset 0.9 metres SW to be demolished within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for walkway post footings within TPZ in accordance with Section 10.6. Demolish existing walkway within TPZ in accordance with Section 10.5.
429b	<i>Ficus rubiginosa f. glabrescens</i> (Port Jackson Fig)	M	2.8	1.8	23.9	Located close to footprint of proposed viewing platform (<0.5 metres).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
430	<i>Hakea salicifolia</i> (Willow-leaf Hakea)	M	2.8	1.8	23.9	Located within footprint of proposed viewing platform / elevated walkway.	Proposed works will necessitate removal.	Remove tree.
431	<i>Hakea salicifolia</i> (Willow-leaf Hakea)	M	3.0	1.8	28.3	Located within footprint of proposed footpath.	Proposed works will necessitate removal.	Remove tree.
431a	<i>Polyscias elegans</i> (Celery Wood)	M	3.5	1.8	38.5	Located within footprint of proposed footpath.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
432	<i>Acacia sp.</i> (Sweet Acacia)	M	2.5	1.4	19.6	Existing ground levels re-contoured within TPZ. Located within graded embankment	Proposed works will necessitate removal.	Remove tree.
433	<i>Acacia sp.</i> (Sweet Acacia)	M	2.5	1.4	19.6	Existing ground levels re-contoured within TPZ. Located within graded embankment	Proposed works will necessitate removal.	Remove tree.
434	<i>Libidibia [syn.Caesalpinia] ferrea</i> (Leopard Tree)	M	4.0	1.8	50.2	Existing ground levels re-contoured within TPZ. Substantial filling within TPZ to RL 51.50 (1.0 metres above grade). Encroachment to TPZ = 100%.	Proposed works will necessitate removal.	Remove tree.
435	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	4.8	2.3	72.3	Located within footprint of Zebra enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
436	<i>Washingtonia filifera</i> (Cotton Palm)	G	3.8	2.1	46.3	Proposed Zebra enclosure Back of House (BOH) area/building offset 1.2 metres NE at RL 52.33 (1 metre above grade). Existing ground levels re-contoured within TPZ. Substantial filling within TPZ to RL 51.70 (1.0 metres above grade). Encroachment to TPZ = 100%.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
436a	<i>Olea europaea subsp. africana</i> (African Olive)	M	3.5	1.7	38.5	Located within footprint of proposed retaining wall.	Proposed works will necessitate removal.	Remove tree.
437	<i>Jacaranda mimosifolia</i> (Jacaranda)	M	4.5	2.1	63.6	Located within footprint of proposed retaining wall.	Proposed works will necessitate removal.	Remove tree.
437a	<i>Ficus macrophylla</i> (Moreton Bay Fig)	M	5.0	2.1	78.5	Located within footprint of proposed retaining wall.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
437b	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	3.5	1.8	38.5	Located within footprint of proposed retaining wall.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
438	<i>Olea europaea subsp. africana</i> (African Olive)	P	2.0	2.0	12.6	Located within footprint of proposed Zebra Back of House (BOH) building	Proposed works will necessitate removal.	Remove tree.
439	<i>Olea europaea subsp. africana</i> (African Olive)	P	2.0	2.0	12.6	Located within footprint of proposed Zebra Back of House (BOH) building	Proposed works will necessitate removal.	Remove tree.
440	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	4.5	2.1	63.6	Located within footprint of Zebra enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
440a	<i>Olea europaea subsp. africana</i> (African Olive)	M	3.5	1.7	38.5	Located within footprint of Zebra enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
440b	<i>Olea europaea subsp. africana</i> (African Olive)	M	5.0	2.0	78.5	Located within footprint of Zebra enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.
441	<i>Ficus obliqua</i> (Small-leaf Fig)	M	6.6	2.6	136.8	Located within footprint of Zebra enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
442	<i>Olea europaea subsp. africana</i> (African Olive)	M	3.0	1.5	28.3	Located within footprint of Giraffe enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.
443	<i>Olea europaea subsp. africana</i> (African Olive)	M	3.0	1.6	28.3	Located within footprint of Giraffe enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.
444	<i>Acacia sp.</i> (Sweet Acacia)	M	2.5	1.5	19.6	Existing ground levels re-contoured within TPZ. Substantial filling within TPZ to RL 51.80 (1.3 metres above grade). Encroachment to TPZ = 100%.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
445	<i>Aloe ferox</i> (Cape Aloe)	G	1.9	1.5	11.6	Located within footprint of 'Aunt Aishas Hut'	Proposed works will necessitate removal.	Relocate (transplant) elsewhere within the site in accordance with the landscape plan and specification.
446	<i>Aloe ferox</i> (Cape Aloe)	G	1.8	1.5	10.2	Located within footprint of 'Aunt Aishas Hut'	Proposed works will necessitate removal.	Relocate (transplant) elsewhere within the site in accordance with the landscape plan and specification.
447	<i>Acacia sp.</i> (Sweet Acacia)	M	2.5	1.5	19.6	Existing ground levels re-contoured within TPZ. Substantial filling within TPZ to RL 52.00 (2 metres above grade). Encroachment to TPZ = 100%.	Proposed works will necessitate removal.	Remove tree.
448	<i>Fraxinus americana</i> (American Ash)	M	3.6	2.0	40.7	Existing ground levels re-contoured within TPZ. Substantial filling within TPZ to RL 52.00 (2 metres above grade). Encroachment to TPZ = 100%.	Proposed works will necessitate removal.	Remove tree.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
449	<i>Acacia sp.</i> (Sweet Acacia)	M	2.4	1.7	18.1	Existing ground levels re-contoured within TPZ. Substantial filling within TPZ to RL 52.00 (2 metres above grade). Encroachment to TPZ = 100%.	Proposed works will necessitate removal.	Remove tree.
450	<i>Acacia sp.</i> (Sweet Acacia)	M	2.4	1.7	18.1	Located within footprint of proposed ramp.	Proposed works will necessitate removal.	Remove tree.
451	<i>Olea europaea subsp. africana</i> (African Olive)	M	2.4	1.7	18.1	Located within footprint of proposed ramp.	Proposed works will necessitate removal.	Remove tree.
452	<i>Olea europaea subsp. africana</i> (African Olive)	M	3.0	1.7	28.3	Located within footprint of proposed ramp.	Proposed works will necessitate removal.	Remove tree.
453a	Row of 4 x <i>Acacia sp.</i> (Prickly Acacia)	M	3.0	1.7	28.3	Existing ground levels re-contoured within TPZ. Excavation (grading) within portion of TPZ to RL 52.50 (0.5 metres below grade).	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for ramp within TPZ in accordance with Section 10.6.
453b	Row of 6 x <i>Acacia sp.</i> (Prickly Acacia)	M	3.0	1.7	28.3	Existing ground levels re-contoured within TPZ. Excavation (grading) within TPZ to RL 52.50 (0.5 metres below grade). Encroachment to TPZ = 100%.	Proposed works will necessitate removal.	Remove tree.
454	<i>Phoenix roebelenii</i> (Dwarf Date Palm)	G	1.8	1.5	10.2	Located within footprint of Meerkat enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal (High Retention Value).	Proposed to be removed. Consider Relocating (transplanting) elsewhere within the site where space permits.
455	<i>Podocarpus elatus</i> (Brown Pine)	M	2.4	1.7	18.1	Located within footprint of Meerkat enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.
456	<i>Podocarpus elatus</i> (Brown Pine)	M	1.7	1.4	8.9	Located within footprint of Meerkat enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
457	<i>Acacia floribunda</i> (Sally Wattle)	M	3.0	1.5	28.3	Located within footprint of Meerkat enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Remove tree.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
458	<i>Phoenix reclinata</i> (Senegal Date Palm)	G	4.8	2.3	72.3	Located within footprint of proposed new footpath.	Proposed works will necessitate removal (High Retention Value).	Proposed to be removed. Consider Relocating (transplanting) elsewhere within the site where space permits.
458a	<i>Spathodea campanulata</i> (African Tulip Tree)	M	3.0	1.8	28.3	Located within footprint of proposed new footpath.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
458b	<i>Strelitzia nicolai</i> (Giant White Bird of Paradise)	G	3.6	2.0	40.7	Located within footprint of proposed new footpath.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
458c	<i>Spathodea campanulata</i> (African Tulip Tree)	M	2.1	1.6	13.4	Located within footprint of proposed new footpath.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
459	<i>Podocarpus elatus</i> (Brown Pine)	M	2.1	1.6	13.4	Located within footprint of proposed new Meerkat enclosure.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
460	<i>Acacia floribunda</i> (Sally Wattle)	M	2.0	1.1	12.6	Located within footprint of proposed new Meerkat enclosure.	Proposed works will necessitate removal.	Remove tree.
461	<i>Phoenix roebelenii</i> (Dwarf Date Palm)	G	1.8	1.5	10.2	Located within footprint of proposed new Meerkat enclosure.	Proposed works will necessitate removal (High Retention Value).	Proposed to be removed. Consider Relocating (transplanting) elsewhere within the site where space permits.
461a	<i>Podocarpus elatus</i> (Brown Pine)	M	2.5	1.5	19.6	Located within footprint of proposed new Meerkat enclosure.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
462	<i>Podocarpus elatus</i> (Brown Pine)	M	2.5	1.5	19.6	Located within footprint of proposed new Meerkat enclosure.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
462a	<i>Podocarpus elatus</i> (Brown Pine)	M	2.0	1.4	12.6	Located within footprint of proposed new footpath.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
463	<i>Gleditsia triacanthos</i> (Honey Locust)	M	5.0	2.1	78.5	Located within footprint of proposed new Shallow Water Body (Meerkat enclosure).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
464	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	4.0	2.0	50.2	Located within footprint of proposed new footpath.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
464a	<i>Gleditsia triacanthos</i> (Honey Locust)	M	2.5	1.3	19.6	Located within footprint of proposed new footpath.	Proposed works will necessitate removal.	Remove tree.
465	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	5.0	2.1	78.5	Located within footprint of proposed new footpath/ new Fennec Fox enclosure	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
466	<i>Eucalyptus robusta</i> (Swamp Mahogany)	P	7.0	2.3	153.9	Located within proposed new Fennec Fox enclosure. Proposed new pathway and associated retaining wall offset 1.8 metres north at RL 51.27 (1 metre above grade). Excavations for retaining wall foundations within TPZ/SRZ. Encroachment to TPZ = 45%.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works are likely to result in a significant adverse impact.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11. NB Indicated for retention on landscape plan.
466a	<i>Aloe ferox</i> (Cape Aloe)	G	1.5	1.3	7.1	Located within proposed new Fennec Fox enclosure	Proposed works will necessitate removal (High Retention Value).	Relocate (transplant) elsewhere within the site in accordance with the landscape plan and specification.
467	<i>Aloe ferox</i> (Cape Aloe)	G	2.4	1.7	18.1	Located within proposed new Fennec Fox enclosure	Proposed works will necessitate removal (High Retention Value).	Relocate (transplant) elsewhere within the site in accordance with the landscape plan and specification.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
468	<i>Aloe ferox</i> (Cape Aloe)	G	1.8	1.5	10.2	Located within proposed new Fennec Fox enclosure	Proposed works will necessitate removal (High Retention Value).	Relocate (transplant) elsewhere within the site in accordance with the landscape plan and specification.
469	<i>Cordyline australis</i> (Cordyline)	G	2.2	1.6	14.6	Located within proposed new Fennec Fox enclosure	Proposed works will necessitate removal.	Remove tree.
470	<i>Aloe ferox</i> (Cape Aloe)	G	3.2	2.2	32.9	Located within proposed new Fennec Fox enclosure	Proposed works will necessitate removal (High Retention Value).	Relocate (transplant) elsewhere within the site in accordance with the landscape plan and specification.
471	<i>Araucaria cunninghamii</i> (Hoop Pine)	M	9.9	3.0	305.3	Existing retaining wall & associated paved area offset 2.6 NE to 3 metres east to be demolished within TPZ. Proposed new roadway and associated retaining wall offset 3.6 metres SE at RL 51.00 (0.6 metres below grade, beyond existing retaining wall). No actual incursion to root zone due to barrier created by the existing wall. Proposed new road and associated retaining wall offset 6.5 metres SW at RL 51.0 Excavations for wall foundations within TPZ.	Whilst there is substantial disturbance within the TPZ, the demolition of existing walls and paved areas and replacement with non-engineered fill and soft landscape will actually decrease the present encroachment and permit greater soil volume and permeability. No adverse impact provided that all works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing retaining walls and pavements within TPZ in accordance with Section 10.5. Undertake excavations for new wall footings within TPZ in accordance with Section 10.6. Install tree protection fencing in accordance with Section 10.3.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
472	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	M	15.0	3.8	706.5	Existing retaining wall & associated paved areas surrounding trunk within 2 to 4 metres radius to be demolished within TPZ. Proposed new roadway and associated retaining wall offset 7.7 metres SW at RL 51.00 (0.6 metres below grade, beyond existing retaining wall). No actual incursion to root zone due to barrier created by the existing wall. Proposed new deck with roof offset 6 to 8 metres north/NW at RL 52.00 (beyond existing retaining wall) No actual incursion to root zone due barrier created by existing walls. Minor pruning (Crown lifting) may be required to clear the roof of the viewing deck.	Whilst there is substantial disturbance within the TPZ, the demolition of existing walls and paved areas and replacement with non-engineered fill and soft landscape will actually decrease the present encroachment and permit greater soil volume and permeability. No adverse impact provided that all works within the TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing retaining walls and pavements within TPZ in accordance with Section 10.5. Undertake excavations for new wall footings within TPZ in accordance with Section 10.6. Install tree protection fencing in accordance with Section 10.3. Undertake any required canopy pruning to clear the building envelope in accordance with Section 10.12. Consider amending position of seating to a location beyond the existing planter box walls to avoid encroachment to the SRZ.
473	<i>Ceiba</i> [syn. <i>Chorisia</i>] <i>speciosa</i> (Silk Floss Tree)	M	6.0	2.5	111.6	Located within footprint of proposed 'Africa Place' Viewing Platform.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
474	<i>Unidentified sp</i> (Chestnut)	M	2.9	1.8	25.8	Located within footprint of proposed 'Waterhole' water feature.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
475	<i>Unidentified sp</i> (Chestnut)	M	9.0	2.5	254.3	Located within footprint of proposed 'Waterhole' water feature.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
476	<i>Unidentified sp</i> (Chestnut)	M	4.0	1.9	50.2	Located within footprint of proposed 'Waterhole' water feature.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
476a	<i>Bauhinia variegata</i> (Orchid Tree)	M	3.0	1.7	28.3	Located within footprint of proposed 'Waterhole' water feature.	Proposed works will necessitate removal.	Remove tree.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
477	<i>Strelitzia nicolai</i> (Giant White Bird of Paradise)	G	3.6	2.0	40.7	Proposed 'Waterhole' water feature and associated retaining wall offset 1.9 metres SE. excavations for pool shell within TPZ. proposed service entry offset 2.7 metres SW at RL 51.70	Proposed works will necessitate removal.	undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
478	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	5.3	2.3	87.5	Proposed Giraffe Back of House (BOH) area offset 1.5 metres west at 56.35 (2.3 metres above grade. Substantial canopy pruning required to clear building.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
478a	<i>Plumeria acutifolia</i> (Frangipani)	M	3.6	2.0	40.7	Located within footprint of proposed new seating area.	Proposed works will necessitate removal.	Remove tree.
479	<i>Glochidion ferdinandi</i> (Cheese Tree)	M	5.4	2.4	91.6	Located within footprint of Giraffe enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
479a	<i>Melaleuca armillaris</i> (Bracelet Honey Myrtle)	M	4.2	2.1	55.4	Located within footprint of proposed new seating area.	Proposed works will necessitate removal.	Remove tree.
500	<i>Lophostemon confertus</i> (Brushbox)	M	8.4	2.8	221.6	Proposed Okapi enclosure Back of House (BOH) area/building offset 3.4 metres west at RL (FFL) 50.00 (0.4 - 1 metre below grade, beyond existing stone wall 0.8 m high). Excavations for building foundations within TPZ. Encroachment to TPZ = 16%. Existing asphalt roadway offset 3.9 metres NE to be demolished within TPZ. Some pruning may be required to clear building envelope.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, proposed works are unlikely to result in any adverse impact due to barrier created by existing wall.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for foundations BOH building within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear building envelope in accordance with Section 10.12. Demolish existing asphalt road within TPZ in accordance with Section 10.5.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
501	<i>Ficus lyrata</i> (Fiddle-leaf Fig)	M	5.5	2.1	95.0	Proposed Okapi enclosure Back of House (BOH) area/building offset 3.4 metres west at RL (FFL) 50.00 (0.4 - 1 metre below grade, beyond existing stone wall 0.8 m high). Excavations for building foundations within TPZ. Encroachment to TPZ = 14%. Some pruning may be required to clear building envelope.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. However, proposed works are unlikely to result in any adverse impact due to barrier created by existing wall.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for foundations BOH building within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear building envelope in accordance with Section 10.12. Demolish existing asphalt road within TPZ in accordance with Section 10.5.
502	<i>Kigelia africana</i> (Sausage Tree)	M	3.5	1.8	38.5	No proposed works within TPZ	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
502a	<i>Albizia julibrissin</i> (Silk Tree)	M	3.0	1.3	28.3	No proposed works within TPZ	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
503	<i>Kigelia africana</i> (Sausage Tree)	M	2.5	1.6	19.6	No proposed works within TPZ	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
503a	<i>Pittosporum undulatum</i> (Native Daphne)	M	3.0	1.8	28.3	No proposed works within TPZ	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
503b	<i>Polyscias elegans</i> (Celery Wood)	M	2.6	1.8	21.9	No proposed works within TPZ	No adverse impact	Retain in accordance with recommended Tree Protection Measures (Section 10). Install Tree Protection Fence in accordance with Section 10.3.
504	<i>Polyscias elegans</i> (Celery Wood)	M	2.5	1.7	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
504a	<i>Polyscias elegans</i> (Celery Wood)	M	2.9	1.8	26.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
505	<i>Howea forsteriana</i> (Kentia Palm)	G	2.2	1.6	14.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
506	<i>Howea forsteriana</i> (Kentia Palm)	G	2.2	1.6	14.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
507	<i>Howea forsteriana</i> (Kentia Palm)	G	2.2	1.6	14.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
508	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.5	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
509	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.6	13.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
510	<i>Ficus obliqua</i> (Small-leaf Fig)	M	4.5	2.1	63.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
511	<i>Ficus obliqua</i> (Small-leaf Fig)	M	4.5	2.1	63.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
512	<i>Harpulia pendula</i> (Tulipwood)	M	4.0	1.9	50.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
513	<i>Podocarpus elatus</i> (Brown Pine)	M	1.5	1.4	7.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
514	<i>Howea forsteriana</i> (Kentia Palm)	G	2.5	1.5	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
515	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	2.3	1.6	16.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
516	<i>Ficus obliqua</i> (Small-leaf Fig)	M	4.0	2.0	50.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
517	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.4	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
518	<i>Ficus obliqua</i> (Small-leaf Fig)	M	4.0	2.0	50.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
519	<i>Ficus obliqua</i> (Small-leaf Fig)	M	3.5	1.8	38.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
519a	<i>Unidentified sp</i>	M	2.0	1.3	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
519b	<i>Unidentified sp</i>	M	2.4	1.7	18.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
520	<i>Ficus obliqua</i> (Small-leaf Fig)	M	4.5	1.9	63.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
521	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.7	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
522	<i>Podocarpus elatus</i> (Brown Pine)	M	1.7	1.4	8.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
523	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.0	2.1	78.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
524	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.8	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
526	<i>Ficus obliqua</i> (Small-leaf Fig)	M	4.5	2.1	63.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
527	<i>Harpulia pendula</i> (Tulipwood)	M	2.5	1.7	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
528	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.8	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
528a	<i>Podocarpus elatus</i> (Brown Pine)	M	2.0	1.5	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
529	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.8	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
530	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.5	2.4	95.0	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
530a	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	2.3	1.6	16.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
531	<i>Harpulia pendula</i> (Tulipwood)	M	4.5	2.0	63.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
532	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	1.9	1.5	11.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
533	<i>Ficus obliqua</i> (Small-leaf Fig)	M	4.3	2.2	58.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
534	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.0	2.3	79.8	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
535	<i>Harpulia pendula</i> (Tulipwood)	M	2.7	1.7	22.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
536	<i>Harpulia pendula</i> (Tulipwood)	M	4.0	1.8	50.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
537	<i>Ficus obliqua</i> (Small-leaf Fig)	M	6.0	2.3	113.0	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
538	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.5	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
538a	<i>Podocarpus elatus</i> (Brown Pine)	M	2.0	1.3	12.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
539	<i>Harpulia pendula</i> (Tulipwood)	M	4.0	1.9	50.2	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
540	<i>Ficus obliqua</i> (Small-leaf Fig)	M	6.0	2.2	113.0	Proposed new pedestrian ramp offset 5.2 metres NW at RL 52.60 (close to existing grade, within footprint of existing roadway). No increase in encroachment to TPZ.	No adverse impact	To be retained - no special tree protection measures required.

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Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
541	<i>Ficus obliqua</i> (Small-leaf Fig)	M	6.0	2.3	113.0	Proposed new pedestrian ramp offset 5.0 metres NW at RL 52.60 (close to existing grade, within footprint of existing roadway). No increase in encroachment to TPZ.	No adverse impact	To be retained - no special tree protection measures required.
542	<i>Harpulia pendula</i> (Tulipwood)	M	2.6	1.8	21.9	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
543	<i>Harpulia pendula</i> (Tulipwood)	M	2.5	1.7	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
544	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	2.4	1.7	18.1	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
545	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.0	2.3	78.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
546	<i>Podocarpus elatus</i> (Brown Pine)	M	2.5	1.6	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
547	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	2.5	1.5	19.6	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
548	<i>Lophostemon confertus</i> (Brushbox)	M	10.4	3.1	336.8	Existing asphalt roadway offset 1 metres NW to be demolished within TPZ. Proposed new elevated pedestrian ramp offset 2.5 metres NW at RL 54.50 to RL 53.78 (1.8 metres above grade, within footprint of existing roadway). No increase in encroachment to TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for foundations of ramp within TPZ in accordance with Section 10.6. Undertake any required canopy pruning to clear access in accordance with Section 10.12. Demolish existing asphalt road within TPZ in accordance with Section 10.5.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
549	<i>Ficus microcarpa</i> var. <i>hillii</i> (Hill's Weeping Fig)	M	7.5	2.5	176.6	Existing asphalt roadway offset 5.5 metres NW to be demolished within TPZ. Proposed new enclosure fence offset 0.6 metres SW. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12. Demolish existing asphalt road within TPZ in accordance with Section 10.5. Undertake excavations for fence post footings within TPZ in accordance with Section 10.6.
550	<i>Lophostemon confertus</i> (Brushbox)	M	5.8	2.4	107.4	Existing asphalt roadway offset 1.6 metres NW to be demolished within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing asphalt road within TPZ in accordance with Section 10.5.
551	<i>Ficus rubiginosa</i> (Port Jackson Fig)	M	5.5	2.3	95.0	Proposed new enclosure fence offset 1.9 metres NW. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear the fence line.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12. Undertake excavations for fence post footings within TPZ in accordance with Section 10.6.
552	<i>Araucaria cunninghamii</i> (Hoop Pine)	M	7.8	2.8	191.0	Existing asphalt roadway offset 1.6 metres north to be demolished within TPZ. Levels of Proposed level of Okapi enclosure RL 51.50 (0.1 metres below grade).	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Demolish existing asphalt road within TPZ in accordance with Section 10.5. Maintain existing ground levels within TPZ.
552a	<i>Harpulia pendula</i> (Tulipwood)	M	3.0	1.6	28.3	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.
553	<i>Brachychiton acerifolius</i> (Illawarra Flame Tree)	M	3.5	1.8	38.5	No proposed works within TPZ	No adverse impact	To be retained - no special tree protection measures required.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
554	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.0	2.2	78.5	Proposed new Okapi enclosure Back of House (BOH) area/building offset 3.8 metres west at RL 50.00 (1 metre below grade). Excavations for building foundations within TPZ. Encroachment to TPZ = 6%. Proposed new enclosure fence offset 2.1 metres SE. Excavations for post footings within SRZ/TPZ. Some canopy pruning may be required to clear the fence line. Levels of Okapi enclosure RL 50.00	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake any required canopy pruning to clear fenceline in accordance with Section 10.12. Undertake excavations for fence post footings and building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within TPZ.
555	<i>Ficus obliqua</i> (Small-leaf Fig)	M	6.0	2.3	113.0	Located within footprint of proposed new Okapi enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
556	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.5	2.4	95.0	Located within footprint of proposed new Okapi enclosure Back of House (BOH) area/building.	Proposed works will necessitate removal (High Retention Value).	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
557	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.6	1.8	21.9	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
558	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.0	1.8	28.3	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
559	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	2.6	1.8	21.9	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
560	<i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.1	1.9	30.6	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
561	<i>Howea forsteriana</i> (Kentia Palm)	G	2.2	1.6	14.6	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.

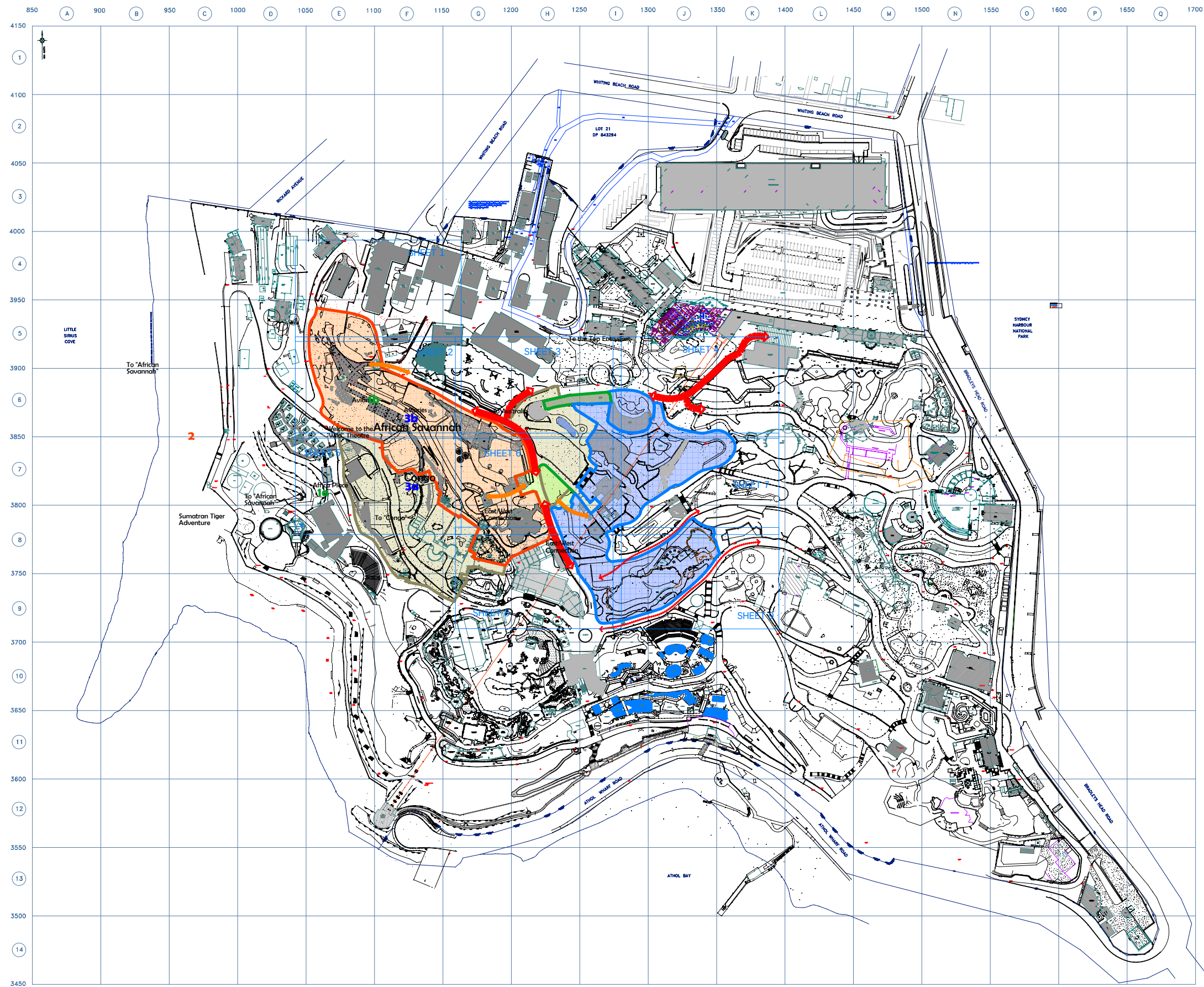
APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE								
Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
562	<i>Ficus obliqua</i> (Small-leaf Fig)	M	5.4	2.4	91.6	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
563	<i>Ficus macrophylla</i> (Moreton Bay Fig)	M	7.5	2.5	176.6	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
564	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.6	13.1	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
565	<i>Ficus obliqua</i> (Small-leaf Fig)	M	6.0	2.4	113.0	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
566	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.5	12.6	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
567	<i>Howea forsteriana</i> (Kentia Palm)	G	2.0	1.5	12.6	No proposed works within TPZ (within former Gorilla enclosure).	No adverse impact	To be retained - no special tree protection measures required.
568	<i>Unidentified</i>	M	4.8	2.3	72.3	Located within footprint of proposed elevated pedestrian ramp.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
569	<i>Unidentified</i>	M	3.6	2.0	40.7	Located within footprint of proposed elevated pedestrian ramp.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
570	<i>Unidentified</i>	M	3.6	2.0	40.7	Located within footprint of proposed elevated pedestrian ramp.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
571	<i>Unidentified</i>	M	3.6	2.0	40.7	Proposed elevated pedestrian ramp offset 3.3 metres north-east at RL 53.05 to 53.78 (0.3-2 metres above grade). Excavations for post footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for pier footings within TPZ in accordance with Section 10.6. Maintain existing ground levels within TPZ.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
572	Unidentified	M	3.6	2.0	40.7	Proposed elevated pedestrian ramp offset 4.3 metres north-east at RL 53.05 to 53.78 (0.3-2 metres above grade). Excavations for post footings within TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for pier footings within TPZ in accordance with Section 10.6. Maintain existing ground levels within TPZ.
573	Unidentified	M	3.6	2.0	40.7	Proposed viewing shelter offset 0.4 metres north at RL 53.05 (900mm above existing grade).	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
574	Unidentified	M	6.0	2.5	113.0	Located within footprint of proposed viewing shelter	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
575	Unidentified	M	6.0	2.5	113.0	Proposed elevated pedestrian ramp & viewing shelter offset 2.3 metres south-west at RL 53.05 (200mm below grade). Excavations for ramp and shelter foundations within TPZ.	Extent of encroachment to TPZ exceeds acceptable limits under AS 4970:2009. Proposed works may result in some adverse impact.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within TPZ.
576	Unidentified	M	3.6	2.0	40.7	Proposed elevated pedestrian ramp & viewing shelter offset 3.2 metres south-west at RL 53.05 (200mm below grade). Excavations for ramp and shelter foundations within TPZ.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact. Proposed to be removed.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for building foundations within TPZ in accordance with Section 10.6. Maintain existing ground levels within TPZ.
577	Unidentified	M	4.2	2.1	55.4	Proposed pedestrian ramp offset 3 metres east at RL 55.75 (0.5 metres below grade). Excavations for ramp foundations and associated retaining wall within SRZ/TPZ.	Extent of encroachment to root zone is less than 10% of the TPZ, which is within acceptable limits under AS 4970:2009. No adverse impact. Proposed to be removed.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for pier footings within TPZ in accordance with Section 10.6. Maintain existing ground levels within TPZ.
578	Unidentified	M	4.8	2.3	72.3	Proposed pedestrian ramp offset 0.5 metres east at RL 55.75 (0.5 metres below grade). Excavations for ramp foundations and associated retaining wall within SRZ/TPZ.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.

APPENDIX 4 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
579	Unidentified	M	3.6	2.0	40.7	Located within footprint of proposed elevated pedestrian ramp.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
580	Unidentified	M	4.2	2.1	55.4	Proposed pedestrian ramp offset 1.0 metres west and 1.4 metres north (within footprint of existing road) at RL 55.75 (0.5 metres below grade). Excavations for ramp foundations and associated retaining wall within SRZ/TPZ.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
581	Unidentified	M	4.2	2.1	55.4	Proposed pedestrian path offset 1.4 metres north (within footprint of existing road) at RL 56.00 (0.6 metres below grade). Excavations for ramp foundations and associated retaining wall within SRZ/TPZ.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
582	Unidentified	M	4.2	2.1	55.4	Proposed pedestrian path offset 0.8 metres south (partly within footprint of existing wall and seat) at RL 54.50 to 53.84 (0.3 metres to 1.2 metres above grade). Excavations for ramp footings within SRZ/TPZ.	No adverse impact, provided that all proposed works within TPZ are undertaken as recommended.	Retain in accordance with recommended Tree Protection Measures (Section 10). Undertake excavations for pier footings within TPZ in accordance with Section 10.6. Maintain existing ground levels within TPZ.
583	Unidentified	M	3.6	2.0	40.7	Located within footprint of proposed elevated pedestrian ramp.	Proposed works will necessitate removal.	Undertake replacement planting with a new tree elsewhere within the site to compensate for loss of amenity in accordance with Section 11.
GA	Group of 12 x <i>Archontophoenix cunninghamii</i> (Bangalow Palm)	G	3.0	1.4	28.3	No proposed works within TPZ.	No adverse impact	To be retained - no special tree protection measures required.



APPENDIX 5
TREE LOCATION PLAN SHOWING
TREE RETENTION VALUES
African Savanah and Congo Exhibits
Taronga Zoo - Bradley's Head Road, MOSMAN



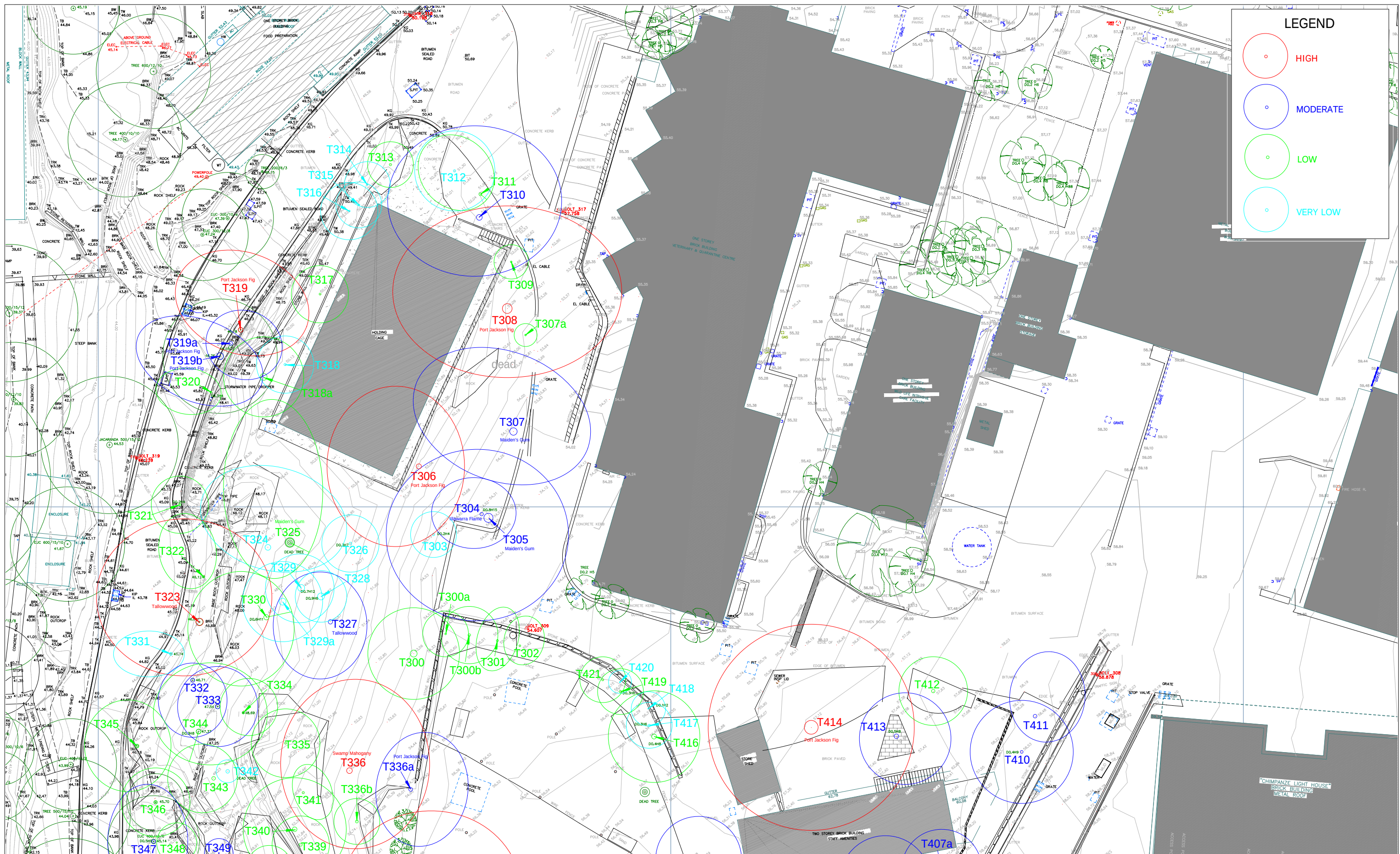
Earthscape Horticultural Services
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PO Box 364
BEROWRA NSW 2081
Ph: 02 9456 4787
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Based on the Survey Drawing
prepared by Hammond Smeallie & Co.
Dwg Ref No. ? Rev 01
Dated 23/05/2016

DWG No. T16-063001

KEY PLAN

DATE: 30/06/2016

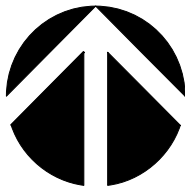


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DWG No. T16-063001
SHEET 1
DATE: 30/06/2016

