**Tree report** 

# 95-105 Seventeenth Ave Austral NSW

Prepared by: Stuart Pittendrigh FAILA MAIH M. Arb Aust. Registered Landscape Architect Horticulturist/Consultant Arborist September 2015

# Introduction

This Tree Report was prepared at the request of Al Mabarat Benevolent Society Ltd. The report is to assist the proposed development at 95-105 Seventeenth Avenue Austral NSW.

The report addresses existing trees noted on the attached marked up the Site Survey Plan Sheet 1 of 1 prepared by MAPSURV now known as Tree Location TP 01.

Information contained in this Tree Report covers existing trees growing on the subject site and close to the common boundary of the adjoining property to the west.

The report is prepared in accordance with Section 2 Planning and the Tree Management Process Cl. 2.3.2 Preliminary Tree Assessment of AS 4970-2009 Protection of tree on development sites.

Plans referred to in the preparation of this tree report include:

- Site Survey prepared by MAPSURV dated 14-04-2015
- Site Plan No. 14.09/DA02 prepared by A.Chandrahasan Architect

Stuart Pittendrigh and his field assistant conducted the site assessment on 31 August 2015.

# The site



95-105 Seventeenth Avenue Austral NSW



## View of site from Seventeenth Avenue

# Aims

The aims of this report are to:

- Identify the subject trees shown on survey plans and site observations.
- Appraise and assess the trees' condition, health, structure physical dimensions and form at the time of inspection
- Determine the Safe Useful Life Expectancy (SULE) of the tree (s)
- The landscape amenity provided by each individual tree
- Identify trees to be retained and
- Identify trees to be removed due to failing health and condition and perceived adverse impacts from the proposed civil works.

# Methodology

The comments and recommendations in this report are based on observations and findings from the site inspection.

The trees were assessed from ground observation using standard methods of visual assessment criteria. No probing or coring, testing of woody tissue. No non invasive root investigations were carried out Tree health was determined by: Canopy density, extension growth, foliage size applicable to the species, and colour. Presence of pest and disease Termite activity The amount of deadwood and dieback throughout the crown Small branch and twig dieback and

Presence of epicormics

Tree structure was assessed by Visual evidence of structural faults and potential points of failure Evidence of past poor pruning practices Physical and or storm damage

The heights of the trees were measured with a Nikon Forestry Pro hypsometer; the crown spread and trunk diameters were measured at breast height (DBH). The stem diameters above the root buttress (DRB) were determined using a diameter measuring tape in accordance with **AS 4970 –2009 Protection of trees on development sites.** 

The nominated Tree Protection Zones and Structural Root Zones were determined by applying the methodology detailed in Section 3 of AS 4070-2009 Protection of trees on development sites. Refer to Appendix A - Terms used in tree report.

### Tree Assessment.

Refer to Appendix B - Tree Survey Assessment Sheets

**Impact on Trees and Recommendations** Refer to attached table **Appendix C** 

### **Summary and Recommendations**

- No tree on the subject site or the adjoining site to the west is considered rare or endangered
- Three (3) Eucalyptus trees are recommended for removal Trees 2, 3.and 7, due to failing health.
- All Syagrus romanzoffiana Cocos palms are exempt Council's TPO and may be removed without consent.
- No stormwater plans were provided
- Trees to be retained shall be managed and fenced off from the proposed development as detailed in Section 4 -Tree Protection Measures of AS4970 2009 The Protection of Trees on Development Sites as detailed below
   A copy of AS4970-2009 shall be held on site and be available at all times for reference purposes.
- 4.2 Activities Restricted within the Tree Protection Zone (TPZ)
- 4.3 Protective Fencing
- 4.4 Signs
- 4.5 Other Tree Protection Measures
- 4.5.2 Trunk and Branch Protection

- 4.5.3 Ground Protection
- 4.5.4 Root Protection during works within TPZ
- 4.5.5 Installing underground Services within TPZ
- 4.5.6 Scaffolding
- 4.6 Maintaining the TPZ
- 4.6.2 Watering
- 4.6.3 Weed removal
- Trees to be removed shall be replaced with species indigenous to the locality so as to maintain the bio-diversity of native vegetation within the neighbourhood.

Stuart Pittendrigh

Consultant Arborist M. Arb. Aust. (#2003)

#### References

Fakes, J. (2004) *Introduction to Arboriculture* RYDE TAFE

Hewett, P. in National Arborists Association of Australia (1997) Assessing Hazardous Trees and their Safe Useful Life Expectancy, NAAA Workshop, June 1997

Jeremy Barrel SULE- Data collection & SULE 11 Presentation of Data in association with the National Arborists Association of Australia (2001) Management of Mature Trees Seminar & Workshops 2001

Richard W. Harris Arboriculture – Integrated Management of Landscape Trees

Standards Australia AS 4970 Protection of trees on development sites.

### Appendix A

### Terms used in Tree Report

Age Class

(Y)-Young refers to a well established but juvenile tree.
(SM)-Semi-mature refers to a tree at growth stages between immaturity and full size. A tree that has reached First Adult Form i.e. displays adult characteristics.
(M)-Mature refers to a full size tree with some capacity for further growth.
(OM)-Over-mature refers to a tree approaching decline or already declining.

Health refers to the trees vigour, growth rate, disease and/or insects.

Condition summarises observations about the health and structure of the tree on a scale of 1-5 (G) Good, (F) Fair, (A) Average, (P) Poor and (VP) Very Poor SRZ) Height expressed in metres refers to estimated overall height of tree

Spread expressed in meters refers to estimated spread of crown at the drip line.

**Diameter at Breast Height (DBH)** expressed in millimetres refers to the trunk diameter at 1.4 meters above ground level.

(DRB) Diameter above Root Buttress (DRB) expressed in millimetres refers to the trunk diameter measured immediately above root buttress.

**Tree Protection Zone (TPZ)** refers to a specific radial offset expressed in metres to provide a specified area above and below the ground and at a given distance from the trunk set aside for the protection of a tree's roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development.

The TPZ shall be calculated as a radial measurement based on twelve times the Diameter at Breast Height (DBH). A TPZ shall not be less than 2m.radius nor greater than a 15m radius as measured from the centre of the stem at ground level.

If an encroachment is less than 10% of the area of the TPZ and is outside the Structural Root Zone (SRZ) detailed root investigation should not be required. However if the proposed encroachment is greater than 10% or inside the SRZ root investigation by non- destructive methods may be required.

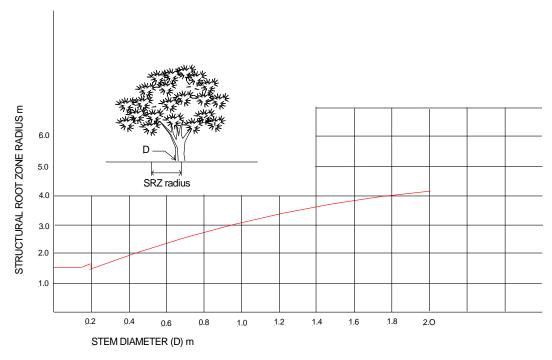
Non-destructive investigation methods may include pneumatic, hydraulic or penetrating radar.

Any encroachment should be compensated for elsewhere and be contiguous with the TPZ.

Structural Root Zone (SRZ) The area around the base of a tree required for the tree's stability in the ground that is necessary to hold the tree upright. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres.

This zone considers a tree's structural stability only, **not** the root zone required for a tree's vigour and long term viability, which will usually be a much larger area.

The SRZ only needs to be calculated when major encroachment into a TPZ is likely to occur



The curve can be expressed by the following formula  $R_{\text{SRZ}}$  = (D X 50)  $_{0.42\,\times\,0.64}$ 

#### NOTES

- 1 R SRZ is the structural root zone radius
- 2 D is the stem diameter measured immediately above to root buttress
- 3 The SRZ for trees less than 0.15 m diamater is 1.5m
- 4 The SRZ formula and graph do not apply to palms, other monocots, cycads & tree ferns
- 5 This does not apply to trees with an asymmetrical root plate

### STRUCTURAL ROOT ZONE

S.U.L.E. Safe useful Life Expectancy Refer to attachment

### Landscape Amenity Rating Scale

#### The landscape amenity value provided by trees indicates:

- How highly the tree is regarded as part of the local landscape
- How the tree provides and enhances the visual quality of the site

The importance of the tree's historical and cultural significance

• The provision of habitat and vegetation linkages within development sites, streetscapes, recreation areas or open space.

The protection, preservation and enhancement of the landscape amenity, particularly community and residential amenity are a core objective of site design, land use and planning.

The following rating scale is designed to assist in the site planning process for the proposed site works/development. Each tree in Schedule B is rated accordingly.

#### No 1 Rating

- Recognised landmark
- Contributes to high visual amenity
- Major contribution to the sites landscape amenity
- Excellent condition, health, structure and form
- Forms part of a listed Critically Endangered Ecological Community
- Significant introduced native species that has successfully adapted to the site conditions and environment.
- Significant introduced evergreen or deciduous species that has successfully adapted to the site conditions and environment
- Indigenous to the locality
- Significant remnant species indigenous to site and locality
- Historic importance
- Cultural importance
- Recorded on significant tree register
- Listed as a threatened species
- Identified habitat tree
- Contributes to the bio-diversity of native vegetation within the locality

#### No 2 Rating

Contributes to good visual amenity

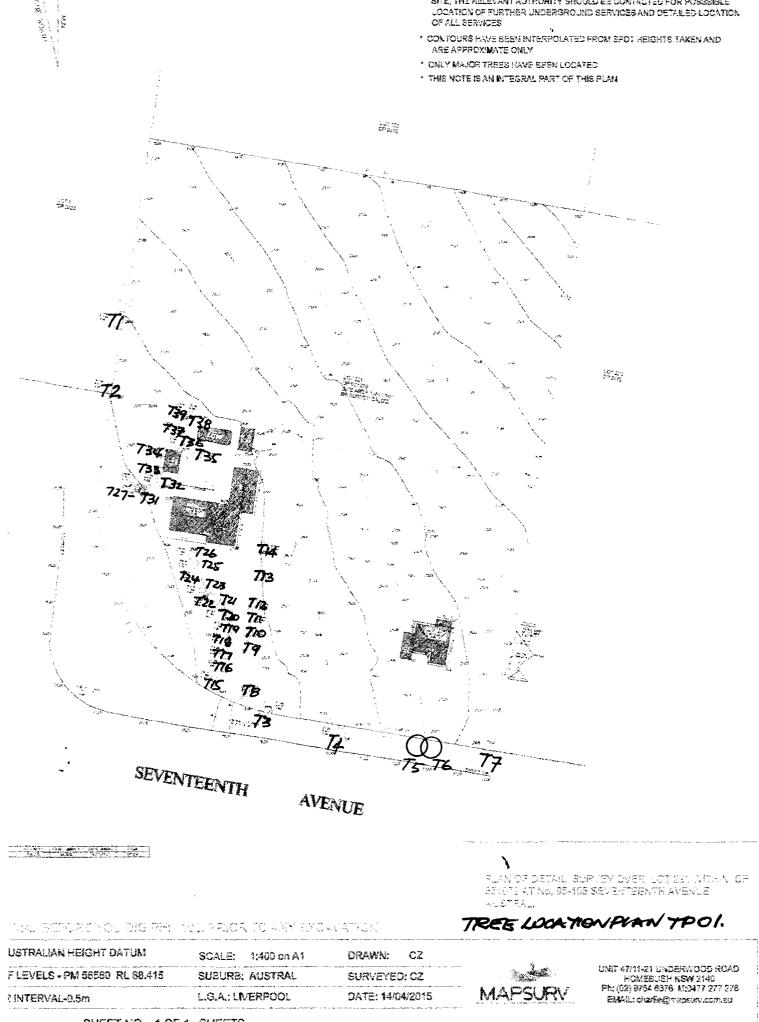
- Makes substantial contribution to the sites landscape amenity
- Good/Fair condition, health, structure and form
- Forms part of a listed Critically Endangered Ecological Community
- Indigenous to the locality
- Remnant species indigenous to site and locality
- Introduced native species that has adapted to the site conditions and environment.
- Introduced evergreen or deciduous species that has adapted to the site conditions and environment
- Listed as a threatened species
- Possible habitat tree
- Contributes to the bio-diversity of native vegetation within the locality

#### No 3 Rating

- Minor contribution to the sites landscape amenity
- Fair/Average condition, health, structure and form
- Average/poor visual amenity
- Indigenous to the locality
- Introduced species
- Forms part of a listed Critically Endangered Ecological Community
- Growth and development suppressed
- Wounds, structural fault extensive storm damage
- Observance of Pests and disease impacting on health and condition.
- Hazardous trees

#### No 4 Rating

- Little or no contribution to the sites landscape amenity
- Poor/very poor visual amenity
- Growth and development over-mature / suppressed
- Major structural faults that cannot be mitigated
- Recognised invasive or weed species
- Dangerous tree
- Species unsuitable for site conditions and environment
- Species exempt LGA Tree Protection Order/Management Plan



SHEET NO. 1 OF 1 SHEETS

48442 180 201 838

SHE, THE RELEVANT AUTHUMITY SHURED BE CURRINGTED FOR PUSSISHE

# NOTES ON SAFE USEFUL LIFE EXPECTANCY (SULE RATING) AS USED IN TREE DESCRIPTION TABLE

In a planning context the time a tree can expect to be usefully retained is the most important long-term consideration. Safe Useful Life Expectancy (SULE) is the life expectancy of the tree modified first by its age, health, condition, safety and location (to give safe life expectancy), then by economics, effects on better trees and sustained amenity (Barrel! 1993 and 1995). Trees with short SULE may at present be making a contribution to the landscape but their value to the local amenity will decrease rapidly towards the end of this period, prior to their being removed for safety or aesthetic reasons.

SULE categories

|   | 1 LONG SULE   | 2 MEDIUM SULE   | 3 SHORTSULE   | 4 REMOVALS  | 5 MOVED<br>OR REPLACED   |
|---|---|---|---|---|--|
| A | Long:<br>appeared to be<br>retainable alt the time<br>of assessment for<br>over 40 years with an<br>acceptable degree of<br>risk, assuming<br>reasonable<br>maintenance.            | Medium:<br>appeared to be<br>retainable at the<br>time of assessment<br>for 15 to 40 years<br>with an acceptable<br>degree of risk,<br>assuming reasonable<br>maintenance.            | Short-<br>appeared to be<br>retainable at the time<br>of assessment for 5<br>to 15 years with an<br>acceptable degree of<br>risk, assuming<br>reasonable<br>maintenance.              | Removal:<br>trees which should<br>be removed within<br>the next 5 years.  | Moved or Replaced:<br>Trees which can be<br>readily moved or<br>replaced       |
| В | Structurally sound<br>trees located in<br>positions that can<br>accommodate future<br>growth  | Trees that may only<br>live between 15 and<br>40 more years   | Trees that may only<br>live between 5 and<br>1 5 more years.  | Dead, dying,<br>suppressed or<br>declining trees<br>through disease or<br>inhospitable<br>conditions  | Small trees less than<br>5 metres (m) in<br>height                             |
| С | Trees that could be<br>made suitable for<br>long-term retention<br>by remedial tree care.   | Trees that may live<br>for more than 40<br>years but would be<br>removed for safety<br>or nuisance reasons.   | Trees that may live<br>for more than 15<br>years but would be<br>removed for safety or<br>nuisance reasons.   | Dangerous trees<br>through damage,<br>structural defect,<br>instability or recent<br>toss of adjacent trees.  | Young trees less than<br>1 5 years old but over<br>5m in height                |
| D | Trees of special<br>significance for<br>historical,<br>commemorative or<br>rarity reasons that<br>would warrant<br>extraordinary efforts<br>to secure their long<br>term retention. | Trees that may live<br>for more than 40<br>years but should be<br>removed to prevent<br>interference with<br>more suitable<br>individuals or to<br>provide space for<br>new planting. | Trees that may live<br>for more than 15<br>years but should be<br>removed to prevent<br>interference with<br>more suitable<br>individuals or to<br>provide space for<br>new planting. | Dangerous trees<br>through structural<br>detects including<br>cavities, decay,<br>included bark,<br>wounds or poor<br>form.   | Trees that have been<br>regularly pruned to<br>artificially control<br>growth' |
| Е |   | Trees that could be<br>made suitable for<br>retention in the<br>medium term by<br>remedial tree care  | Trees that require<br>substantial remedial<br>tree care and are only<br>suitable for retention<br>in the short term.  | Damaged trees that<br>are' clearly not safe to<br>retain  |  |
| F |   |   |   | Trees that may live<br>for more than 5 years<br>but should be<br>removed to prevent<br>interference with<br>more suitable<br>individuals or to<br>provide space for<br>new planting |  |
| G |   |   |   | Trees that are<br>damaging or may<br>cause damage to<br>existing structures<br>within 5 years   |  |
| Н |   |   |   | Trees that will become<br>dangerous after<br>removal of other trees<br>for the reasons given<br>in A) to F).  |  |

| Tree<br>No. | Botannical Name<br>Common Name | Age<br>Class | Height<br>M | Spread<br>M | DCH<br>mm | DRB<br>mm | TPZ<br>m. rad. | SRZ<br>m. rad. | L/Sc<br>Amen.  | Description, Condition and Comments   | SULE |
|-------------|--------------------------------|--------------|-------------|-------------|-----------|-----------|----------------|----------------|--|---|------|
| 1           | Corymbia maculata              | М            | 18.5        | 11          | 310       | 812       | 8.2            | 3              | 2  | Evergreen tree indigenous to the locality, good condition, the species is   | 2a   |
|             | Spotted gum                    |              |             |             | 395       |           |                | 1              |  | not rare or endangered, co-dominant stems, strong union, no visible evidence of pests or disease  |      |
|             |                                |              |             |             | 460       |           |                | 1              |  |   |      |
| 2           | Eucalyptus moluccana           | Μ            | 19          | 9           | 283       | 850       | 6.8            | 3.1            | 3  | Evergreen tree indigenous to the locality, average/fair condition, the species is not rare or endangered, co-dominant stems, strong union, small  | 4b   |
|             | Grey box                       |              |             |             | 310       |           |                |                |  | branch and twig die back, tree stressed, decline in vigour  |      |
|             |                                |              |             |             | 379       |           |                |                |  |   |      |
| 3           | Eucalyptus moluccana           | М            | 25          | 14          | 830       | 1100      | 10             | 3.4            | 3  | Evergreen tree indigenous to the locality, average condition, the species is  | 4b   |
|             | Grey box                       |              |             |             |           |           |                |                |  | not rare or endangered, structure and form typical of the species, small<br>branch and twig die back, epicormic growth, tree stressed, decline in<br>vigour, mistletoe observed throughout crown                    |      |
|             |                                |              |             |             |           |           |                |                |  |   |      |
| 4           | Eucalyptus tereticornis        | М            | 16          | 9           | 332       | 980       | 7.6            | 3.3            | 2  | Evergreen tree indigenous to the locality, good condition, the species is<br>not rare or endangered, co-dominant stems, strong union, no visible<br>evidence of pests or disease, aerial cables above/through crown | 2a   |
|             | Forest Red gum                 |              |             |             | 2x381     |           |                |                |  |   |      |
| 5           | Eucalyptus moluccana           | M            | 11          | 5           | 290       | 315       | 3.5            | 2              | 2  | Evergreen tree indigenous to the locality, good condition, the species is   | 2a   |
|             | Grey box                       |              |             | -           |           |           |                | 1              | 1  | not rare or endangered, structure and form typical of the species, small<br>branch and twig die back, structural fault, aerial cables above/through   |      |
|             |                                |              |             |             |           |           |                |                |  | crown   |      |
| 6           | Eucalyptus moluccana           | М            | 11          | 5           | 242       | 325       | 2.9            | 2.1            | 2  | Evergreen tree indigenous to the locality, good condition, the species is<br>not rare or endangered, structure and form typical of the species, small   | 2a   |
|             | Grey box                       |              |             |             |           |           |                |                |  | branch and twig die back, structural fault, aerial cables above/through crown   |      |
| 7           | Eucalyptus moluccana           | М            | 25          | 14          | 657       | 820       | 7.9            | 3              | 3  | Evergreen tree indigenous to the locality, average / fair condition, the  | 4b   |
|             | Grey box                       |              |             | -           |           |           |                | 1              | I  | species is not rare or endangered, structure and form typical of the species, small branch and twig die back, epicormic growth, tree stressed,  |      |
|             |                                |              |             |             |           |           |                |                |  | decline in vigour.  |      |
| 8           | Syagrus romanzoffiana          | М            | 10          | 4           | 405       | 0         | 4.9            | 0              | 0 4 Palm species introduced to the site, good condition, the species is no<br>or endangered, structure and form typical of the species | Palm species introduced to the site, good condition, the species is not rare  | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |  | or chambered, structure and rorm typical of the species   |      |

| Tree<br>No. | Botannical Name<br>Common Name | Age<br>Class | Height<br>M | Spread<br>M | DCH<br>mm | DRB<br>mm | TPZ<br>m. rad. | SRZ<br>m. rad. | L/Sc<br>Amen. | Description, Condition and Comments   | SULE |
|-------------|--------------------------------|--------------|-------------|-------------|-----------|-----------|----------------|----------------|---------------|---|------|
| 9           | Syagrus romanzoffiana          | М            | 8           | 4           | 379       | 0         | 4.5            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               |   |      |
| 10          | Syagrus romanzoffiana          | М            | 10          | 4.5         | 410       | 0         | 4.9            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union           | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or choangered, co dominant sterns, strong amon  |      |
| 11          | Syagrus romanzoffiana          | М            | 10          | 4           | 415       | 0         | 5              | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare  | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species  |      |
| 12          | Syagrus romanzoffiana          | М            | 10          | 4           | 400       | 0         | 4.8            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | of endangeled, structure and form typical of the species  |      |
| 13          | Syagrus romanzoffiana          | М            | 10          | 4           | 407       | 0         | 4.9            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | of endangered, structure and form typical of the species  |      |
| 14          | Syagrus romanzoffiana          | М            | 10          | 4           | 400       | 0         | 4.8            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare  | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species  |      |
| 15          | Syagrus romanzoffiana          | M            | 11          | 4.5         | 425       | 0         | 5.1            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare  | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species  |      |
| 16          | Syagrus romanzoffiana          | М            | 9           | 4           | 356       | 0         | 4.3            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare  | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species  |      |

| Tree<br>No. | Botannical Name<br>Common Name | Age<br>Class | Height<br>M | Spread<br>M | DCH<br>mm | DRB<br>mm | TPZ<br>m. rad. | SRZ<br>m. rad. | L/Sc<br>Amen. | Description, Condition and Comments  | SULE |
|-------------|--------------------------------|--------------|-------------|-------------|-----------|-----------|----------------|----------------|---------------|--|------|
| 17          | Syagrus romanzoffiana          | М            | 10          | 4           | 405       | 0         | 4.9            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare<br>or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             | _           |           |           |                |                |               |  |      |
| 18          | Syagrus romanzoffiana          | М            | 9           | 4           | 389       | 0         | 4.7            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species    | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 19          | Syagrus romanzoffiana          | М            | 9           | 4           | 400       | 0         | 4.8            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                | 1             | or endangered, structure and form typical of the species   |      |
| 20          | Syagrus romanzoffiana          | М            | 9           | 4           | 398       | 0         | 4.8            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare<br>or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or champered, structure and form typical of the species  |      |
| 21          | Syagrus romanzoffiana          | М            | 9           | 4           | 389       | 0         | 4.7            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare<br>or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             | _           |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 22          | Syagrus romanzoffiana          | М            | 11          | 4.5         | 432       | 0         | 5.2            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 23          | Syagrus romanzoffiana          | М            | 9           | 4           | 400       | 0         | 4.8            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             | -           |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 24          | Syagrus romanzoffiana          | М            | 11          | 4.5         | 425       | 0         | 5.1            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
|             |                                |              |             |             |           |           |                |                |               |  |      |

| Tree<br>No. | Botannical Name<br>Common Name | Age<br>Class | Height<br>M | Spread<br>M | DCH<br>mm | DRB<br>mm | TPZ<br>m. rad. | SRZ<br>m. rad. | L/Sc<br>Amen. | Description, Condition and Comments  | SULE |
|-------------|--------------------------------|--------------|-------------|-------------|-----------|-----------|----------------|----------------|---------------|--|------|
| 25          | Syagrus romanzoffiana          | М            | 9           | 4           | 400       | 0         | 4.8            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species    | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               |  |      |
| 26          | Syagrus romanzoffiana          | М            | 10          | 4.5         | 412       | 0         | 4.9            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species    | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 27          | Syagrus romanzoffiana          | M            | 11          | 4.5         | 435       | 0         | 5.2            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                | 1             | or endangered, structure and form typical of the species   |      |
| 28          | Syagrus romanzoffiana          | Μ            | 11          | 4.5         | 430       | 0         | 5.2            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species    | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 29          | Syagrus romanzoffiana          | М            | 11          | 4           | 410       | 0         | 4.9            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare<br>or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 30          | Syagrus romanzoffiana          | М            | 11          | 4.5         | 437       | 0         | 5.2            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 31          | Syagrus romanzoffiana          | М            | 11          | 4.5         | 412       | 0         | 4.9            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             | <br>        |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 32          | Syagrus romanzoffiana          | М            | 10          | 4           | 400       | 0         | 4.8            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |

| Tree<br>No. | Botannical Name<br>Common Name | Age<br>Class | Height<br>M | Spread<br>M | DCH<br>mm | DRB<br>mm | TPZ<br>m. rad. | SRZ<br>m. rad. | L/Sc<br>Amen. | Description, Condition and Comments  | SULE |
|-------------|--------------------------------|--------------|-------------|-------------|-----------|-----------|----------------|----------------|---------------|--|------|
| 33          | Syagrus romanzoffiana          | М            | 10          | 4           | 395       | 0         | 4.7            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species    | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               |  |      |
| 34          | Syncarpia glomulifera          | Μ            | 9           | 4           | 346       | 0         | 4.2            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species    | 2c   |
|             | Turpentine                     |              |             |             |           |           |                |                |               | or chadingered, structure and form typical of the species  |      |
| 35          | Syagrus romanzoffiana          | М            | 9           | 4           | 362       | 0         | 4.3            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare<br>or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 36          | Syagrus romanzoffiana          | Μ            | 10          | 4           | 410       | 0         | 4.9            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare<br>or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               |  |      |
| 37          | Syagrus romanzoffiana          | М            | 9           | 4           | 358       | 0         | 4.3            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare<br>or endangered, structure and form typical of the species | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or chadhgered, structure and form typical of the species   |      |
| 38          | Syagrus romanzoffiana          | М            | 11          | 4.5         | 425       | 0         | 5.1            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                |               | or endangered, structure and form typical of the species   |      |
| 39          | Syagrus romanzoffiana          | OM           | 10          | 4           | 422       | 0         | 5.1            | 0              | 4             | Palm species introduced to the site, good condition, the species is not rare   | 2c   |
|             | Cocos palm                     |              |             |             |           |           |                |                | 1             | or endangered, structure and form typical of the species   |      |
|             |                                |              |             |             |           |           |                |                |               |  |      |

| Tree | Botannical Name |           | TPZ SRZ         |                            |
|------|-----------------|-----------|-----------------|----------------------------|
| No.  | Common Name     | Condition | m. rad. m. rad. | Comments / Recommendations |

| 1  | Corymbia maculata       | Good    | 8.2 | 3   | Tree located on adjoining property and is impacted on by existing structures, adopt tree sensitive construction measures such as   |
|----|-------------------------|---------|-----|-----|--|
|    | Spotted gum             |         |     |     | pier and beam, suspended slabs, cantilevered buillding sections, screw piles and contiguous piling to minimise the impact of<br>encroachment, retain tree, protect and manage tree during development in accordance with Section 4 Tree protection Measures<br>set out in AS4970-2009 The Protection of Trees on Development Sites |
| 2  | Eucalyptus moluccana    | Average | 6.8 | 3.1 | Removal recommended, tree displays poor health and condition, declining vigour, short safe useful life expectancy.   |
|    | Grey box                |         |     |     |  |
| 3  | Eucalyptus moluccana    | Average | 10  | 3.4 | Street tree. Removal recommended, tree displays poor health and condition, declining vigour, short safe useful life expectancy.  |
|    | Grey box                |         |     |     |  |
| 4  | Eucalyptus tereticornis | Good    | 7.6 | 3.3 | Street tree, retain tree, adopt tree sensitive construction measures such as pier and beam, suspended slabs, cantilevered buillding  |
|    | Forest Red gum          |         |     |     | <ul> <li>sections, screw piles and contiguous piling to minimise the impact of encroachment, protect and manage tree during<br/>development in accordance with Section 4 Tree protection Measures set out in AS4970-2009 The Protection of Trees on<br/>Development Sites</li> </ul>   |
| 5  | Eucalyptus moluccana    | Good    | 3.5 | 2   | Street tree, retain tree, protect and manage tree during development in accordance with Section 4 Tree protection Measures set<br>out in AS4970-2009 The Protection of Trees on Development Sites  |
|    | Grey box                |         |     |     | out in A34970-2009 the Flotection of frees on Development Sites  |
| 6  | Eucalyptus moluccana    | Good    | 2.9 | 2.1 | Street tree, retain tree, protect and manage tree during development in accordance with Section 4 Tree protection Measures set   |
|    | Grey box                |         |     |     | out in AS4970-2009 The Protection of Trees on Development Sites  |
| 7  | Eucalyptus moluccana    | Average | 7.9 | 3   | Street tree. Removal recommended, tree displays poor health and condition, declining vigour, short safe useful life expectancy.  |
|    | Grey box                |         |     |     |  |
| 8  | Syagrus romanzoffiana   | Good    | 4.9 | 0   | Species exempt Councils TPO and may be removed without consent.  |
|    | Cocos palm              |         |     |     |  |
| 9  | Syagrus romanzoffiana   | Good    | 4.5 | 0   | Species exempt Councils TPO and may be removed without consent.  |
|    | Cocos palm              |         |     |     |  |
| 10 | Syagrus romanzoffiana   | Good    | 4.9 | 0   | Species exempt Councils TPO and may be removed without consent.  |
|    | Cocos palm              |         |     |     |  |
| 11 | Syagrus romanzoffiana   | Good    | 5   | 0   | Species exempt Councils TPO and may be removed without consent.  |
|    | Cocos palm              |         |     |     |  |

| Tree | Botannical Name |           | TPZ SRZ         |                            |
|------|-----------------|-----------|-----------------|----------------------------|
| No.  | Common Name     | Condition | m. rad. m. rad. | Comments / Recommendations |

| 12 | Syagrus romanzoffiana | Good | 4.8 | 0 | Species exempt Councils TPO and may be removed without consent. |
|----|-----------------------|------|-----|---|---|
|    | Cocos palm            |      |     |   |   |
| 13 | Syagrus romanzoffiana | Good | 4.9 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 14 | Syagrus romanzoffiana | Good | 4.8 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 15 | Syagrus romanzoffiana | Good | 5.1 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 16 | Syagrus romanzoffiana | Good | 4.3 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 17 | Syagrus romanzoffiana | Good | 4.9 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 18 | Syagrus romanzoffiana | Good | 4.7 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 19 | Syagrus romanzoffiana | Good | 4.8 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 20 | Syagrus romanzoffiana | Good | 4.8 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 21 | Syagrus romanzoffiana | Good | 4.7 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            | ]    |     |   |   |
| 22 | Syagrus romanzoffiana | Good | 5.2 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
|    |                       |      |     |   |   |

| Tree | Botannical Name |           | TPZ SRZ         |                            |
|------|-----------------|-----------|-----------------|----------------------------|
| No.  | Common Name     | Condition | m. rad. m. rad. | Comments / Recommendations |

| 23 | Syagrus romanzoffiana | Good | 4.8 | 0 | Species exempt Councils TPO and may be removed without consent. |
|----|-----------------------|------|-----|---|---|
|    | Cocos palm            |      |     |   |   |
| 24 | Syagrus romanzoffiana | Good | 5.1 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 25 | Syagrus romanzoffiana | Good | 4.8 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      | -   | 1 |   |
| 26 | Syagrus romanzoffiana | Good | 4.9 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 27 | Syagrus romanzoffiana | Good | 5.2 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 28 | Syagrus romanzoffiana | Good | 5.2 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 29 | Syagrus romanzoffiana | Good | 4.9 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      | -   | • |   |
| 30 | Syagrus romanzoffiana | Good | 5.2 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 31 | Syagrus romanzoffiana | Good | 4.9 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 32 | Syagrus romanzoffiana | Good | 4.8 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 33 | Syagrus romanzoffiana | Good | 4.7 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            | ]    |     | 1 |   |
|    | 1                     |      |     |   |   |

| Tree | Botannical Name |           | TPZ SRZ         |                            |
|------|-----------------|-----------|-----------------|----------------------------|
| No.  | Common Name     | Condition | m. rad. m. rad. | Comments / Recommendations |

| 34 | Syncarpia glomulifera | Good | 4.2 | 0 | Species exempt Councils TPO and may be removed without consent. |
|----|-----------------------|------|-----|---|---|
|    | Turpentine            |      |     |   |   |
| 35 | Syagrus romanzoffiana | Good | 4.3 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 36 | Syagrus romanzoffiana | Good | 4.9 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 37 | Syagrus romanzoffiana | Good | 4.3 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 38 | Syagrus romanzoffiana | Good | 5.1 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
| 39 | Syagrus romanzoffiana | Good | 5.1 | 0 | Species exempt Councils TPO and may be removed without consent. |
|    | Cocos palm            |      |     |   |   |
|    | 1                     |      |     |   |   |