

AUSTRALIS
Tree Management



Arboricultural Impact Assessment

**Lot 6 and 7 in DP 1203674
484 - 488 Bringelly Road, Austral**

Commissioned by: **Dreamscapes Architects**
S1502, Level 15, Citadel Towers
799 Pacific Highway
CHASTWOOD NSW 2067

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Summary

Australis Tree Management has been commissioned by Dreamscapes Architects to complete an arboricultural impact assessment. This report aims to identify the health and condition of the trees, potential impacts from proposed works.

On the 6th & 13th June 2017, I attended the site at 484 - 488 Bringelly Road, Austral and inspected two hundred and thirty (230) trees, which are located on site and within 5m of the boundaries of the site on adjoining properties.

I completed a modified Tree Survey Form (Matheny & Clark, 1994), applied 'TreeAZ' ratings (Barrell, 2016) as well as taking photographs.

Summary of Results

- One hundred and thirty-six (136) trees on site are indigenous
- Twenty-one (21) trees are native species
- Twenty (20) trees are exotic species
- Seven (7) trees on site are dead and should be assessed by an ecologist for habitat capabilities and management
- Ten (10) trees are listed as Noxious Weeds
- Thirty (30) trees are not protected under councils Tree Management Policy due their small size or species.
- Three (3) trees are located on an adjoining property and proposed for removal
- 49% of the trees are in adequate health and condition with 'TreeAZ' ratings of 'A' and 51% have ratings of 'Z' and not worthy of long term retention.

The development proposed is for the demolition of the existing structures for the construction of a residential flat building development with associated works.

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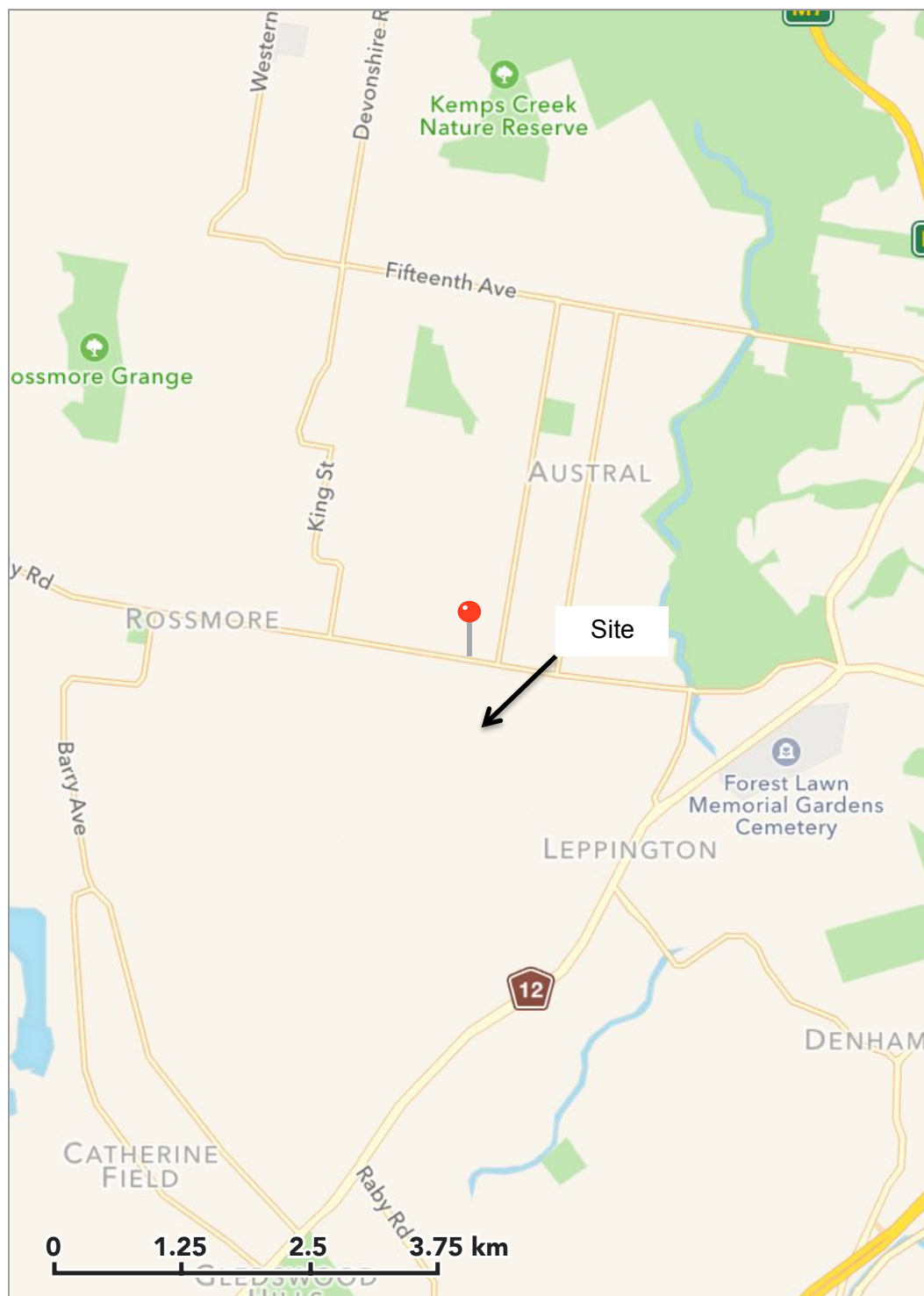
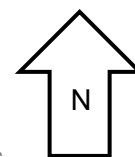
Abbreviations

EPBC Act.....	Environment Protection & Biodiversity Act 1999
LGA.....	Local Government Authority
NPWS.....	National Parks & Wildlife Service
NPW Act.....	National Parks & Wildlife Act 1974
TSC Act.....	Threatened Species and Conservation Act, 1995
NW Act.....	Noxious Weeds Act, 1993
SRZ.....	Structural Root Zone
TPO.....	Tree Preservation Order
TPZ.....	Tree Protection Zone

Location Map

484 - 488 Bringelly Road, Austral

near Austral — New South Wales



Source — Apple Maps

1 of 1

Figure 1. Location Map

Site Map

484 - 488 Bringelly Road, Austral

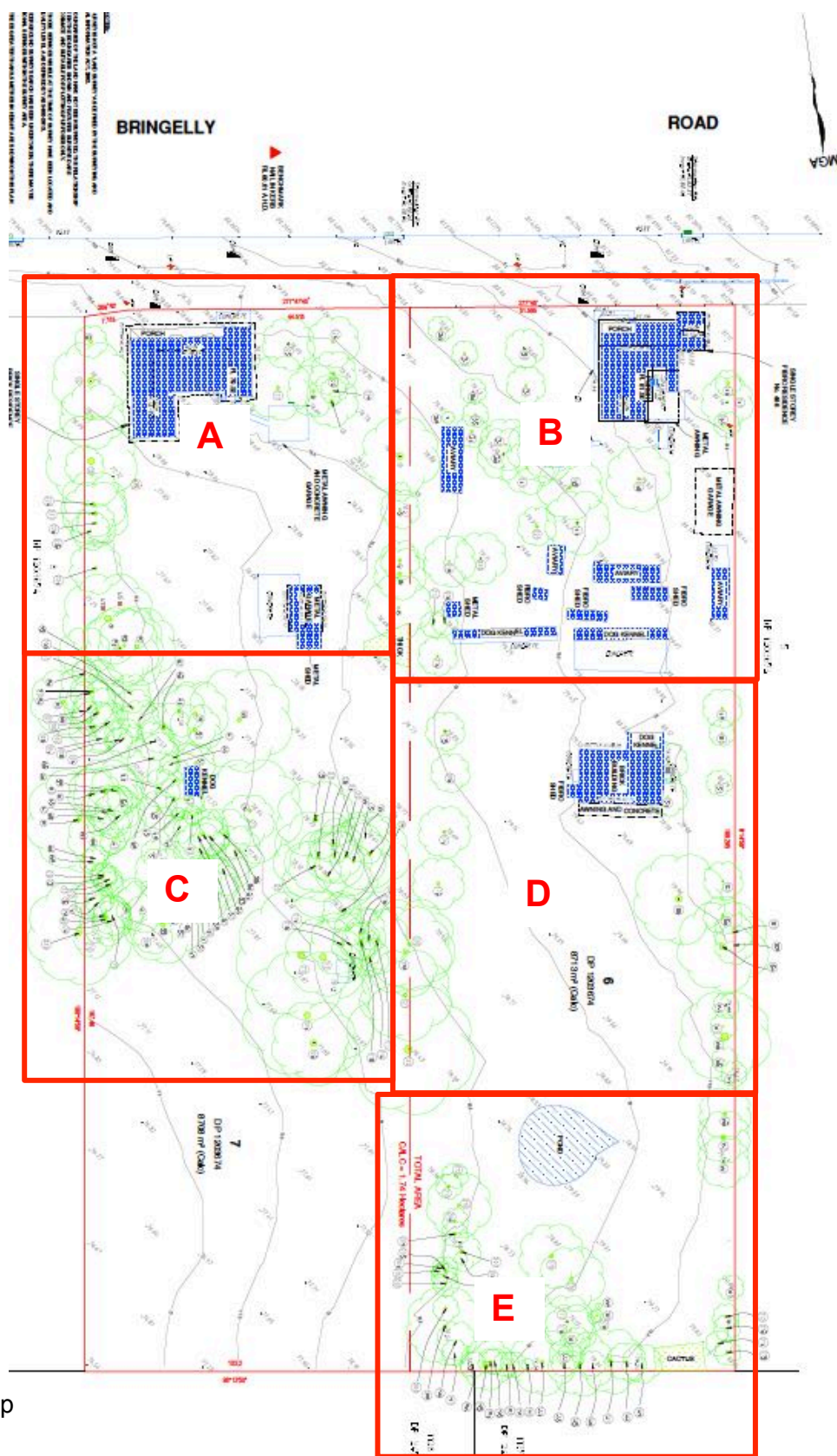


Figure 2. Site Map

1 Introduction

1.1 Brief

Dreamscapes Architects has given instruction to inspect and assess the health and condition of the trees at 484 - 488 Bringelly Road, Austral, including any tree within 5m of the proposed works including trees on adjoining properties. To prepare an Arboricultural Impact Assessment on the proposed impacts of the development works on the subject trees.

1.2 Aims

- Undertake field surveys for tree health and condition.
- Conduct a literature review on the tree defects and symptoms.
- Search databases for relevant tree species information including Tree Preservation Orders.

1.3 Qualifications and Experience

This report has been based upon site observations and the assessment of the subject trees and conclusions have been reached from experience and follow up research. Qualification details are included in the appendix.

1.4 Documents Provided

The following information was supplied by Dreamscapes Architects.

- 7317 484-488 Bringelly Road Austral DETAIL A1 ISSUE B Page 1.pdf
- 7317 484-488 Bringelly Road Austral DETAIL A1 ISSUE B Page 2.pdf
- 17008-484-488 Bringelly Road, Austral - DA 2017 05 08.....pdf

1.5 Scope

This report is only concerned with the health and condition of the subject trees and the potential impacts from the proposed development. Root mapping, invasive structural strength of the trees or soils assessments or aerial inspections were performed. This report has been prepared in accordance with Liverpool Council. It includes a detailed assessment based on the site visit and the documents provided.

2 Methodology

2.1 Methods

The following relevant information was compiled for consideration of the proposed works. Details are located in the appendices.

- *Tree Survey Form* (Matheny & Clark, 1994) modified, which includes species identification, age, condition etc.
- *TreeAZ* (Barrell, 2016)
- *Visual Tree Assessment* (Mattheck & Breloer, 1994)

2.2 Information Collected

- Tree Species (botanical and common name)
- Trunk diameter measured at 1.4m, basal diameter, height, canopy
- Age, crown class & crown condition
- Canopy health and vigour (density, deadwood etc.)
- Tree condition (wounds etc.)
- Tree Protection Zone

2.3 Species Identification

Tree identification was determined by visible features only and compared with text listed in ‘References’ only. Every effort was made to correctly identify the assessed trees where time permitted.

2.4 Tree Measurements

In accordance with AS 4970-2009 tree trunk diameters were measured with a diameter tape at 1.4m high to formulate Tree Protection Zones (TPZ). Tree heights are measured with a clinometer and canopy spreads estimated accordingly.

2.5 Photography

A Nikon D5200 SLR camera was used. In low light levels photographs maybe altered to improve visual quality. This involves adjustments to exposure, contrast, reduction of shadows and increased sharpness. No adjustments to vibrancy that alter colour were performed.

2.6 Tree Management Policy

This report relies on the information contained within Liverpool City Council *Tree Management Policy* (2016). This report also includes all trees on adjoining properties that are likely to be impacted by the proposed development regardless of the definition contained in the TMP.

Definition of a Tree

A tree is defined as any perennial plant that has a:

- a) Height greater than 3.5 metres; or*
- b) Canopy spread greater than 4.0 metres; or*
- c) Primary trunk diameter greater than 400 millimetres when measured 1.0 metre above existing ground level of the tree.*

This clause does not apply to:

a) A tree or other vegetation that Council is satisfied is dead dying or dangerous and is not required as the habitat of native fauna.

Note: Any dead trees that form a component of any species, populations or communities listed under the provisions of the Threatened Species Conservation Act (TSCA) 1995; or their habitats are not to be removed without gaining the necessary approvals under that Act;

b) Any plant that is on the noxious weeds register for the Liverpool LGA or is listed as an exempt species in Council's LDCP 2008.

2.7 Vegetation

Vegetation types have been determined by the following text:

- *Native Vegetation of Southeast NSW*: a revised classification and map for the coast and eastern tablelands (Tozer and others, 2010).
- *Vegetation Penrith 9030*. Edition 3. Native Vegetation Mapping Report Series 4, NSW Native Vegetation Mapping Program (NSW NECCW, 2009).

2.8 Legislation

The following were searched.

- Environment Protection and Biodiversity Conservation Act (1999)
- National Parks & Wildlife Act (1975)
- Noxious Weeds Act (1993)
- Threatened Species Conservation Act (1995)

3 Site Visit and Observations

3.1 Field Visit

The unaccompanied site visit was conducted on 6th & 13th June 2017 taking approximately 12 hours. All observations were from ground level without detailed investigations. The weather at the time of the inspection was clear, still and dry with good visibility.

3.2 Brief Site Description

Bringelly Road is located in the residential suburb of Austral. Number 484 and 488 are on the northern side of the road surrounded by similar rural developments. The properties consist of houses that are set to the centre of the block with sheds and other small structures throughout.

3.3 Location of the Trees

The trees in question are located throughout the entire the site. The trees have been located on the supplied site plan and numbered accordingly. These plans are illustrative purposes only and should not be used directly for scaling measurements.

3.4 Collection of Data

From inspecting the trees information was collected on species, maturity, life expectancy, 'TreeAZ' (Barrell 2016) and significant defects and other relevant facts, which are recorded in the tree schedule (appendix A). The inspection was of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level.

4 Vegetation

4.1 Onsite Vegetation

The site contains indigenous tree species. They are of varying ages and stages of maturity. The nearest remnant vegetation is within 100m north east and mapped as Cumberland River Flat Forest and Cumberland Shale Plains Woodland (DECCW, 2009). The subject dominant trees together with other indigenous trees in the surrounding residences are connected the remainder of the ecological communities nearby. Cumberland Shale Plains Woodland is listed as an Endangered Ecological Community on Part 3 of Schedule 1 of the *Threatened Species Conservation Act 1995*.

4.2 Threatened Species

The subject tree species are not listed in the NSW Threatened Species Conservation Act 1995.

4.3 Noxious Weeds and Undesirable Species

The subject tree species are listed in the NW Act 1993 or in councils' list of undesirable species.

- Trees no 12, 148, 196, 202, 204, 205, 206, 209, 216 & 221 *Ligustrum lucidum* (Large Leaf Privet)
- Tree no 175 *Opuntia stricta* (Prickly Pear)

4.4 Dead Trees

Seven (7) trees on site are dead and should be assessed by an ecologist for habitat capabilities.

5 Results

The following tables do not include dead trees or trees not protected under councils Tree Management Policy. A complete tree schedule is located in appendix a.

5.1 TreeAZ Ratings Definitions

Local policy exemptions: Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species

Deteriorating health/condition: Trees that are likely to be removed within 10 years because of deteriorating health and/or structural condition

3 Health: Deteriorating health with little realistic prospect of recovery

Crown instability: Deteriorating structural conditions where an increasing risk of failure can be temporarily addressed by reasonable intervention, e.g. storm damage, cavities, decay, included bark, wounds, excessive imbalance, etc

5 Root Instability: Deteriorating whole tree stability through poor anchorage, increased exposure to weather etc.

Good management: Trees that are likely to be removed within 10 years through responsible management of the tree population

8 No future potential: Poor condition or location with no realistic potential for recovery or improvement, e.g. dominated by adjacent trees or buildings, poor architectural framework, etc

5.1.1 'TreeAZ' Ratings

		TreeAZ						
		A	Z1	Z3	Z4	Z5	Z8	Total
Life Expectancy	<5yrs	0	1	14	1	0	0	16
	5-15yrs	7	8	24	7	0	1	47
	15-40yrs	70	5	4	19	2	5	105
	40+yrs	11	1	1	0	0	0	13
	Total	88	14	43	27	2	6	180

Table 1. Life Expectancies and 'TreeAZ' Ratings

5.2 Tree Species and Age - On Site

The following table does not include dead trees or trees not protected under councils' Tree Management Policy.

	Young	Semi mature	Mature	Total
Indigenous				
<i>Acacia decurrens</i> (Black Wattle)	0	1	0	1
<i>Casuarina glauca</i> (Swamp Oak)	41	15	14	70
<i>Eucalyptus longifolia</i> (Woollybutt)	0	0	1	1
<i>Eucalyptus moluccana</i> (Grey Box)	22	5	9	36
<i>Eucalyptus tereticornis</i> (Forest Red Gum)	11	9	5	25
<i>Melaleuca sp</i> (Paperbark)	1	2	2	5
<i>Melaleuca styphelioides</i> (Prickly Paperbark)	0	0	1	1
Native				
<i>Araucaria heterophylla</i> (Norfolk Island Pine)	1	0	0	1
<i>Callistemon species</i> (Bottlebrush)	9	1	1	11
<i>Leptospermum petersonii</i> (Lemon Scented Tea Tree)	0	0	2	2
<i>Macadamia integrifolia</i> (Macadamia Nut)	0	0	1	1
<i>Melaleuca bracteata</i> (Revolution Green)	1	0	4	5
<i>Melia azedarach</i> (White Cedar)	0	0	1	1
Exotic				
<i>Ficus carica</i> (Common Fig)	1	0	0	1
<i>Jacaranda mimosifolia</i> (Jacaranda)	5	0	0	5
<i>Juniperus chinensis</i> (Chinese Juniper)	0	0	1	1
<i>Lagerstroemia indica</i> (Crepe Myrtle)	0	0	2	2
<i>Malus sp</i> (Apple)	0	0	2	2
<i>Morus sp</i> (Mulberry)	0	0	1	1
<i>Photinia robusta</i> (Photinia)	0	0	1	1
<i>Pinus radiata</i> (Monterey Pine)	0	0	2	2
<i>Pyrus sp</i> (Pear)	0	0	1	1
				180

Table 2. Tree Species and Age - On Site

5.3 Trees Located on Adjoining Properties

Tree number	Species	Tree AZ	Tree Protection Zone	TPZ Encr
90	<i>Casuarina glauca</i> (Swamp Oak)	Z4	8.4m	20%
91	<i>Eucalyptus moluccana</i> (Grey Box)	Z3	8.4m	31%
222	<i>Eucalyptus moluccana</i> (Grey Box)	Z3	8.4m	31%

Table 3. Trees Located on Adjoining Properties

6 Discussion

6.1 Indigenous Tree Species

- 6.1.1 Two hundred and thirty trees (230) were assessed with one hundred and eighty (180) trees are protected under councils Tree Management Policy. One hundred and thirty-six (136) or 77% are indigenous tree species.
- 6.1.2 *Casuarina glauca* (Swamp Oak) species make up 40% of all trees assessed that are protected under councils Tree Management Policy. Twenty-eight (28) trees are semi mature to mature in age and thirty-three (33) trees have life expectancies of 15-40+ years. This species is listed within Cumberland River Flat Forest (Tozer 2009).
- 6.1.3 *Eucalyptus moluccana* (Grey Box) species make up 20% of all trees assessed. Twenty-two (22) trees are young in age with ten (10) of these trees having life expectancies of 15-40+ years. The species is also considered locally *dominant-frequent* (Benson & Howell, 1998). This species is listed within both Cumberland River Flat Forest and Cumberland Shale Plains Woodland (Tozer 2009).
- 6.1.4 *Eucalyptus tereticornis* (Forest Red Gum) species make up 14% of all trees assessed. Fourteen (14) trees are semi mature to mature in age with eighteen (18) of these trees having life expectancies of 15-40+ years. The species is also considered locally *dominant-frequent* (Benson & Howell, 1998). This species is listed within both Cumberland River Flat Forest and Cumberland Shale Plains Woodland (Tozer 2009).
- 6.1.5 Other indigenous species assessed include *Acacia sp* (Wattle), *Eucalyptus longifolia* (Woollybutt), *Melaleuca sp* (Paperbark) make up nine (9) trees.

6.2 Native Tree Species

- 6.2.1 Twenty-one (21) trees are native tree species being various *Callistemon species* and *Melaleuca species*.
- 6.2.2 Fifteen (15) native trees are semi mature to mature in age with thirteen (13) trees have life expectancies of 15-40+ years.
- 6.2.3 Other indigenous species assessed include *Araucaria heterophylla* (Norfolk Island Pine), *Melia azedarach* (White Cedar) and *Leptospermum petersonii* (Lemon Scented Tea Tree) make up four (4) trees.

6.3 Exotic Tree Species

- 6.3.1 Twenty (20) trees are exotic tree species, dominated by *Malus sp* (Apple) and *Jacaranda mimosifolia* (Jacaranda) an additional seventeen (17) of trees are either listed as exempt species or small in size and not protected under councils TPO.

6.4 Tree Health and Condition

- 6.4.1 **Tree Wounds:** Twenty one (21) trees have varying types of wounds, both on the trunk, within canopies and wounds from the pruning of large branches. Bark protects the cambial layer that transports food. Damage and exposure to this layer will disrupt the flow and cause the cells to die. Fungal and mirco-organism can infections can cause decay or canker formation.
- 6.4.2 **Included Bark:** Eleven (11) trees have severe signs of included unions either between codominant trunks scaffold branch union, primary or secondary branch junctions. The adaptive growth within the included bark branch union enables structural strength to meet the physical pressures applied to the branches. However tree no 193 the Codominant trunk union is failing and becoming separated.
- 6.4.3 **Epicormic Growth and Water Sprouts:** Many trees also have varying amounts of these shoots. These shoots are generated as a result of stress, failed branches or excessive pruning. They grow vigorously and are weakly attached while young and prone to failure. As the shoots mature the branch of origin will lay new wood over the union and strengthen the hold.
- 6.4.4 **Decline:** Thirty nine (39) trees are suffering from decline at a level that is likely to be irreversible. Signs of decline include thin canopy foliage, excessive deadwood and epicormic growth.

6.5 Trees Proposed for Removal

- 6.5.1 All one hundred and seventy seven (177) on site trees are located within the proposed development works and are proposed for removal.

6.6 Trees Located on Adjoining Properties

- 6.6.1 Three (3) trees located on the adjoining properties are unlikely to tolerate the proposed road works due to the level of encroachment into the TPZ being over 20%. However these trees are either in poor condition or severely damaged and are not worthy of long term retention of any design changes allowing their retention.

7 Conclusion & Recommendations

7.1 Indigenous Tree Species

7.1.1 Of the trees inspected 77% are indigenous species and are protected under councils Tree Management Policy. 45% of these trees are in adequate health and condition with 'TreeAZ' ratings of 'A', and 63% have life expectancies of between 15-40 years or more. These are dominated by *Casuarina glauca* (Swamp Oak), *Eucalyptus moluccana* (Grey Box) and *Eucalyptus tereticornis* (Forest Red Gum).

7.2 Native Tree Species

7.2.1 Native trees make up 12% of the protected trees inspected, dominated by *Callistemon species* and *Melaleuca species*. 62% of these trees are in adequate health and condition with 'TreeAZ' ratings of 'A', and have life expectancies of between 15-40 years or more.

7.3 Exotic Tree Species

7.3.1 Exotic trees make up 8% of the protected trees inspected, dominated by *Malus sp* (Apple) and *Jacaranda mimosifolia* (Jacaranda). 70% of these trees are in adequate health and condition with 'TreeAZ' ratings of 'A', and 85% have life expectancies of between 15-40 years or more.

7.4 Trees Located on Adjoining Properties

7.4.1 Trees no. 90, 91 and 222 are located on the adjoining property and in poor health and condition. The proposed TPZ encroachments are over 20% and considered major in accordance with AS4970-2009. These trees are not worthy of long term retention of any design changes allowing their retention.

Signed



Meredith Gibbs. Dip. Hort. (Arb.)
Australis Tree Management

Appendix A - Tree Schedule

Tree no.	1	2	3	4	5
Species	Callistemon viminalis (Weeping Bottlebrush)	Dead	Callistemon citrinus (Lemon-scented Bottlebrush)	Callistemon citrinus (Lemon-scented Bottlebrush)	Callistemon viminalis (Weeping Bottlebrush)
DBH	44cm		28cm	28cm	30cm
DGL	60cm		30cm	50cm	40cm
Height	6.0m		4.0m	4.0m	6.0m
Canopy	8.0m		6.0m	3.0m	6.0m
Age	Mature		Mature	Mature	Mature
Life Expect.	15-40yrs	Dead	15-40yrs	<5yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Native		Native	Native	Native
Crown Class	Dominant		Codominant	Codominant	Codominant
Crown Cond.	4 Good	0 Dead	3 Average/Low	2 Decline	3 Average/Low
Health & Cond.				DL	
TreeAZ	A	Z	A	Z3	A
TPO Protected	Yes	No	Yes	Yes	Yes
TPZ	5.3m		3.4m	3.4m	3.6m
Tree no.	6	7	8	9	10
Species	Melaleuca bracteata (Revolution Green)	Syagrus romanzoffianum (Coco's Palm)	Callistemon citrinus (Lemon-scented Bottlebrush)	Casuarina glauca (Swamp Oak)	Melaleuca styphelioides (Prickly Paperbark)
DBH	25cm	40cm	28cm	60cm	100cm
DGL	20cm		50cm	80cm	100cm
Height	5.0m	5.0m	5.0m	14.0m	8.0m
Canopy	4.0m		6.0m	12.0m	10.0m
Age	Mature	Semi Mature	Mature	Mature	Mature
Life Expect.	15-40yrs	40+yrs	5-15yrs	15-40yrs	40+yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Native	Exotic	Native	Indigenous	Indigenous
Crown Class	Codominant	Dominant	Codominant	Codominant	Dominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	4 Good
Health & Cond.				BI	
TreeAZ	A	Z1	A	A	A
TPO Protected	Yes	No	Yes	Yes	Yes
TPZ	3.0m	4.8m	3.4m	7.2m	12.0m

Tree no.	11	12	13	14	15
Species	Melia azedarach (White Cedar)	Ligustrum lucidum (Large Leaf Privet)	Jacaranda mimosifolia (Jacaranda)	Casuarina glauca (Swamp Oak)	Eucalyptus tereticornis (Forest Red Gum)
DBH	17cm	17cm	20cm	35cm	40cm
DGL	30cm	20cm	30cm	50cm	40cm
Height	4.0m		6.0m	12.0m	12.0m
Canopy	6.0m		4.0m	8.0m	8.0m
Age	Young	Mature	Young	Semi Mature	Young
Life Expect.	15-40yrs	15-40yrs	40+yrs	5-15yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Native	Noxious Weed - 4	Exotic	Indigenous	Indigenous
Crown Class	Dominant		Codominant	Codominant	Supressed
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	2 Decline	3 Average/Low
Health & Cond.				DL	
TreeAZ	A	Z2	A	Z3	A
TPO Protected	Yes	No	Yes	Yes	Yes
TPZ	2.0m	2.0m	2.4m	4.2m	4.8m
Tree no.	16	17	18	19	20
Species	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Casuarina glauca (Swamp Oak)	Eucalyptus tereticornis (Forest Red Gum)
DBH	45cm	80cm	30cm	10cm	40cm
DGL	45cm	80cm	30cm	20cm	50cm
Height	12.0m	16.0m	7.0m	4.0m	13.0m
Canopy	8.0m	14.0m	4.0m	4.0m	10.0m
Age	Semi Mature	Mature	Young	Young	Semi Mature
Life Expect.	15-40yrs	5-15yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.		TW's CK EP+	DW		TW CK BI+
TreeAZ	A	Z4	A	A	Z4
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	5.4m	9.6m	3.6m	1.2m	4.8m

Tree no.	21	22	23	24	25
Species	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)
DBH	30cm	50cm	56cm	40cm	70cm
DGL	40cm	65cm	60cm	45cm	80cm
Height	10.0m	20.0m	22.0m	14.0m	24.0m
Canopy	12.0m	10.0m	10.0m	10.0m	16.0m
Age	Young	Semi Mature	Semi Mature	Semi Mature	Mature
Life Expect.	5-15yrs	15-40yrs	5-15yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Dominant	Codominant	Dominant
Crown Cond.	2 Decline	3 Average/Low	1 Severe Decline	3 Average/Low	3 Average/Low
Health & Cond.	TW's	CK	TW+ DL	TW SI TFC	TW PF DW ScW CK
TreeAZ	Z4	A	Z4	Z4	Z4
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	3.6m	6.0m	6.7m	4.8m	8.4m
Tree no.	26	27	28	29	30
Species	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)
DBH	45cm	35cm	60cm	47cm	50cm
DGL	55cm	40cm	80cm	55cm	50cm
Height	24.0m	8.0m	16.0m	13.0m	16.0m
Canopy	12.0m	6.0m	10.0m	5.0m	12.0m
Age	Mature	Young	Mature	Young	Semi Mature
Life Expect.	<5yrs	<5yrs	15-40yrs	5-15yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Dominant
Crown Cond.	2 Decline	2 Decline	3 Average/Low	2 Decline	2 Decline
Health & Cond.	DL	DL		EP DW DL	EP DW DL
TreeAZ	Z3	Z3	A	Z3	Z3
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	5.4m	4.2m	7.2m	5.6m	6.0m

Tree no.	31	32	33	34	35
Species	Eucalyptus moluccana (Grey Box)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus moluccana (Grey Box)	Eucalyptus tereticornis (Forest Red Gum)
DBH	40cm	20cm	40cm	25cm	20cm
DGL	40cm	30cm	40cm	30cm	25cm
Height	9.0m	12.0m	13.0m	13.0m	4.0m
Canopy	10.0m	12.0m	8.0m	6.0m	4.0m
Age	Young	Young	Semi Mature	Young	Young
Life Expect.	5-15yrs	15-40yrs	15-40yrs	<5yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	2 Decline	3 Average/Low
Health & Cond.	LN	LN PrF	TW	DL	PF
TreeAZ	Z4	Z4	Z4	Z3	Z4
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	4.8m	2.4m	4.8m	3.0m	2.4m
Tree no.	36	37	38	39	40
Species	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus moluccana (Grey Box)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)
DBH	30cm	25cm	25cm	25cm	45cm
DGL	40cm	35cm	35cm	25cm	50cm
Height	8.0m	12.0m	12.0m	9.0m	14.0m
Canopy	6.0m	6.0m	6.0m	6.0m	8.0m
Age	Young	Young	Young	Young	Semi Mature
Life Expect.	<5yrs	15-40yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Dominant
Crown Cond.	1 Severe Decline	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.	DL	TW's TFC		TW's PrF	TW's
TreeAZ	Z3	Z4	A	Z4	Z4
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	3.6m	3.0m	3.0m	3.0m	5.4m

Tree no.	41	42	43	44	45
Species	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)
DBH	25cm	20cm	30cm	25cm	20cm
DGL	30cm	30cm	45cm	30cm	40cm
Height	9.0m	9.0m	13.0m	8.0m	10.0m
Canopy	5.0m	3.0m	7.0m	6.0m	4.0m
Age	Young	Young	Young	Young	Young
Life Expect.	15-40yrs	15-40yrs	5-15yrs	5-15yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Dominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	2 Decline	1 Severe Decline	2 Decline
Health & Cond.	TW's		DL	DL	DL
TreeAZ	Z4	A	Z3	Z3	Z3
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	3.0m	2.4m	3.6m	3.0m	2.4m
Tree no.	46	47	48	49	50
Species	Eucalyptus moluccana (Grey Box)	Dead	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)
DBH	17cm		20cm	17cm	30cm
DGL	20cm		25cm	20cm	30cm
Height	5.0m		13.0m	4.0m	12.0m
Canopy	1.0m		4.0m	1.0m	6.0m
Age	Young		Young	Young	Young
Life Expect.	15-40yrs	Dead	15-40yrs	<5yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous		Indigenous	Indigenous	Indigenous
Crown Class	Codominant		Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	0 Dead	3 Average/Low	2 Decline	2 Decline
Health & Cond.				DL	DL
TreeAZ	Z1	Z	A	Z3	Z3
TPO Protected	Yes	No	Yes	Yes	Yes
TPZ	2.0m		2.4m	2.0m	3.6m

Tree no.	51	52	53	54	55
Species	Eucalyptus moluccana (Grey Box)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus moluccana (Grey Box)	Dead
DBH	40cm	45cm	60cm	17cm	
DGL	40cm	45cm	65cm	20cm	
Height	16.0m	8.0m	22.0m	5.0m	
Canopy	8.0m	5.0m	14.0m	4.0m	
Age	Semi Mature	Young	Mature	Young	
Life Expect.	15-40yrs	<5yrs	5-15yrs	15-40yrs	Dead
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	
Crown Class	Codominant	Codominant	Codominant	Codominant	
Crown Cond.	3 Average/Low	1 Severe Decline	3 Average/Low	3 Average/Low	0 Dead
Health & Cond.		PF+	DL DW TW CK		
TreeAZ	A	Z4	Z4	A	Z
TPO Protected	Yes	Yes	Yes	Yes	No
TPZ	4.8m	5.4m	7.2m	2.0m	
Tree no.	56	57	58	59	60
Species	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus moluccana (Grey Box)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Eucalyptus moluccana (Grey Box)
DBH	40cm	17cm	17cm	30cm	60cm
DGL	50cm	20cm	20cm	40cm	70cm
Height	13.0m	5.0m	6.0m	8.0m	15.0m
Canopy	7.0m	4.0m	3.0m	6.0m	10.0m
Age	Semi Mature	Young	Young	Semi Mature	Mature
Life Expect.	15-40yrs	<5yrs	5-15yrs	<5yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Dominant	Codominant	Codominant
Crown Cond.	3 Average/Low	2 Decline	2 Decline	1 Severe Decline	1 Severe Decline
Health & Cond.	TW TFC CK	DL	DL	DL	DL SI
TreeAZ	Z4	Z3	Z3	Z3	Z3
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	4.8m	2.0m	2.0m	3.6m	7.2m

Tree no.	61	62	63	64	65
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	20cm	17cm	17cm	17cm	17cm
DGL	20cm	20cm	20cm	20cm	20cm
Height	7.0m	7.0m	6.0m	5.0m	5.0m
Canopy	5.0m	3.0m	3.0m	2.0m	2.0m
Age	Semi Mature	Young	Young	Young	Young
Life Expect.	15-40yrs	5-15yrs	5-15yrs	5-15yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Dominant	Dominant	Dominant	Dominant
Crown Cond.	3 Average/Low	3 Average/Low	2 Decline	2 Decline	2 Decline
Health & Cond.			DL DW	DL DW	DL DW
TreeAZ	A	A	Z3	Z3	Z3
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.4m	2.0m	2.0m	2.0m	2.0m
Tree no.	66	67	68	69	70
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Dead	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	17cm	17cm		17cm	17cm
DGL	20cm	20cm		20cm	20cm
Height	6.0m	6.0m		6.0m	4.0m
Canopy	4.0m	4.0m		4.0m	2.0m
Age	Young	Young		Young	Young
Life Expect.	15-40yrs	15-40yrs	Dead	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous		Indigenous	Indigenous
Crown Class	Codominant	Codominant		Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	0 Dead	3 Average/Low	3 Average/Low
Health & Cond.	TW	TW		TW	
TreeAZ	Z4	Z4	Z	Z4	A
TPO Protected	Yes	Yes	No	Yes	Yes
TPZ	2.0m	2.0m		2.0m	2.0m

Tree no.	71	72	73	74	75
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	17cm	17cm	17cm	17cm	20cm
DGL	20cm	20cm	20cm	20cm	23cm
Height	7.0m	7.0m	4.0m	5.0m	8.0m
Canopy	3.0m	3.0m	2.0m	2.0m	3.0m
Age	Young	Young	Young	Young	Young
Life Expect.	15-40yrs	15-40yrs	15-40yrs	<5yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	2 Decline	3 Average/Low
Health & Cond.				DL	
TreeAZ	A	A	A	Z3	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.0m	2.0m	2.0m	2.0m	2.4m
Tree no.	76	77	78	79	80
Species	Melaleuca sp (Paperbark)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Eucalyptus moluccana (Grey Box)	Eucalyptus tereticornis (Forest Red Gum)
DBH	43cm	17cm	20cm	60cm	50cm
DGL	70cm	20cm	25cm	65cm	55cm
Height	8.0m	4.0m	7.0m	24.0m	11.0m
Canopy	6.0m	2.0m	4.0m	12.0m	14.0m
Age	Mature	Young	Young	Mature	Semi Mature
Life Expect.	15-40yrs	15-40yrs	15-40yrs	5-15yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	1 Severe Decline	3 Average/Low
Health & Cond.		DL		DL	TW LN
TreeAZ	A	Z3	A	Z3	Z4
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	5.2m	2.0m	2.4m	7.2m	6.0m

Tree no.	81	82	83	84	85
Species	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)
DBH	20cm	20cm	36cm	40cm	10cm
DGL	25cm	25cm	50cm	50cm	20cm
Height	12.0m	13.0m	16.0m	14.0m	7.0m
Canopy	5.0m	6.0m	6.0m	8.0m	4.0m
Age	Young	Young	Young	Semi Mature	Young
Life Expect.	<5yrs	5-15yrs	5-15yrs	<5yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Dominant	Dominant	Codominant	Dominant
Crown Cond.	2 Decline	2 Decline	1 Severe Decline	2 Decline	2 Decline
Health & Cond.	DL	DL	DL	EP DW DL	DL
TreeAZ	Z3	Z3	Z3	Z3	Z3
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.4m	2.4m	4.3m	4.8m	1.2m
Tree no.	86	87	88	89	90
Species	Casuarina glauca (Swamp Oak)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Casuarina glauca (Swamp Oak)
DBH	20cm	30cm	17cm	32cm	70cm
DGL	30cm	40cm	20cm	30cm	80cm
Height	8.0m	17.0m	5.0m	14.0m	15.0m
Canopy	6.0m	7.0m	1.0m	6.0m	12.0m
Age	Semi Mature	Semi Mature	Young	Young	Mature
Life Expect.	15-40yrs	5-15yrs	5-15yrs	5-15yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	Adjoining
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Dominant	Dominant
Crown Cond.	3 Average/Low	2 Decline	2 Decline	1 Severe Decline	3 Average/Low
Health & Cond.		DL DW SI	DL	DL	PF+
TreeAZ	A	Z3	Z3	Z3	Z4
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.4m	3.6m	2.0m	3.8m	8.4m

Tree no.	91	92	93	94	95
Species	Eucalyptus moluccana (Grey Box)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	70cm	60cm	45cm	65cm	41cm
DGL	70cm	65cm	55cm	75cm	50cm
Height	16.0m	13.0m	12.0m	13.0m	13.0m
Canopy	12.0m	8.0m	6.0m	8.0m	4.0m
Age	Mature	Mature	Mature	Mature	Mature
Life Expect.	5-15yrs	15-40yrs	15-40yrs	15-40yrs	15-40yrs
Location	Adjoining	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	1 Severe Decline	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.	DL DW	Buttress removed x 2			
TreeAZ	Z3	Z5	A	A	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	8.4m	7.2m	5.4m	7.8m	4.9m
Tree no.	96	97	98	99	100
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	17cm	25cm	17cm	30cm	30cm
DGL	20cm	40cm	20cm	45cm	40cm
Height	4.0m	13.0m	8.0m	11.0m	12.0m
Canopy	1.0m	6.0m	3.0m	4.0m	6.0m
Age	Young	Semi Mature	Young	Semi Mature	Semi Mature
Life Expect.	5-15yrs	15-40yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					Sap
TreeAZ	Z1	A	A	A	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.0m	3.0m	2.0m	3.6m	3.6m

Tree no.	101	102	103	104	105
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	17cm	20cm	40cm	20cm	17cm
DGL	20cm	25cm	50cm	25cm	20cm
Height	4.0m	11.0m	13.0m	4.0m	3.0m
Canopy	1.0m	3.0m	7.0m	3.0m	2.0m
Age	Young	Young	Semi Mature	Young	Young
Life Expect.	5-15yrs	15-40yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	1 Severe Decline	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.	DL			PrF TW	
TreeAZ	Z3	A	A	Z4	Z1
TPO Protected	Yes	Yes	Yes	Yes	No
TPZ	2.0m	2.4m	4.8m	2.4m	2.0m
Tree no.	106	107	108	109	110
Species	Casuarina glauca (Swamp Oak)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	20cm	40cm	25cm	10cm	10cm
DGL	35cm	45cm	30cm	20cm	20cm
Height	8.0m	12.0m	7.0m	4.0m	4.0m
Canopy	4.0m	6.0m	2.0m	4.0m	4.0m
Age	Young	Semi Mature	Young	Young	Young
Life Expect.	15-40yrs	5-15yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	2 Decline	1 Severe Decline	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.	Sap	DL	TW		
TreeAZ	Z3	Z3	Z4	A	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.4m	4.8m	3.0m	1.2m	1.2m

Tree no.	111	112	113	114	115
Species	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	80cm	46cm	40cm	17cm	25cm
DGL	90cm	80cm	50cm	20cm	50cm
Height	20.0m	12.0m	16.0m	6.0m	16.0m
Canopy	18.0m	10.0m	8.0m	4.0m	4.0m
Age	Mature	Mature	Semi Mature	Young	Semi Mature
Life Expect.	15-40yrs	5-15yrs	15-40yrs	5-15yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	2 Decline	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.		EP+ Dominant trunk failure		PrF	
TreeAZ	A	Z4	A	Z8	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	9.6m	5.5m	4.8m	2.0m	3.0m
Tree no.	111	112	113	114	115
Species	Eucalyptus tereticornis (Forest Red Gum)	Eucalyptus tereticornis (Forest Red Gum)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	80cm	46cm	40cm	17cm	25cm
DGL	90cm	80cm	50cm	20cm	50cm
Height	20.0m	12.0m	16.0m	6.0m	16.0m
Canopy	18.0m	10.0m	8.0m	4.0m	4.0m
Age	Mature	Mature	Semi Mature	Young	Semi Mature
Life Expect.	15-40yrs	5-15yrs	15-40yrs	5-15yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	2 Decline	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.		EP+ Dominant trunk failure		PrF	
TreeAZ	A	Z4	A	Z8	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	9.6m	5.5m	4.8m	2.0m	3.0m

Tree no.	116	117	118	119	120
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	17cm	40cm	40cm	55cm	55cm
DGL	20cm	50cm	50cm	70cm	70cm
Height	4.0m	13.0m	11.0m	14.0m	14.0m
Canopy	1.0m	8.0m	8.0m	10.0m	10.0m
Age	Young	Semi Mature	Semi Mature	Mature	Mature
Life Expect.	<5yrs	15-40yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Dominant	Codominant	Dominant	Dominant
Crown Cond.	1 Severe Decline	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.	DL				
TreeAZ	Z3	A	A	A	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.0m	4.8m	4.8m	6.6m	6.6m
Tree no.	121	122	123	124	125
Species	Casuarina glauca (Swamp Oak)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Eucalyptus moluccana (Grey Box)	Jacaranda mimosifolia (Jacaranda)
DBH	60cm	90cm	80cm	70cm	22cm
DGL	70cm	80cm	90cm	85cm	40cm
Height	13.0m	16.0m	13.0m	16.0m	4.0m
Canopy	12.0m	22.0m	15.0m	12.0m	6.0m
Age	Mature	Mature	Mature	Mature	Young
Life Expect.	15-40yrs	5-15yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Exotic
Crown Class	Dominant	Dominant	Codominant	Codominant	Dominant
Crown Cond.	3 Average/Low	22 Decline	1 Severe Decline	2 Decline	4 Good
Health & Cond.		DW EP DL PE	TW+ EP+ DW+ DL	DW+ PE DL	
TreeAZ	A	Z3	Z3	Z3	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	7.2m	10.8m	9.6m	8.4m	2.6m

Tree no.	126	127	128	129	130
Species	Leptospermum petersonii (Lemon Scented Tea Tree)	Callistemon viminalis (Weeping Bottlebrush)	Callistemon citrinus (Lemon-scented Bottlebrush)	Leptospermum petersonii (Lemon Scented Tea Tree)	Punica granatum (Pomegranate)
DBH	17cm	28cm	17cm	17cm	17cm
DGL	20cm	40cm	40cm	20cm	20cm
Height	4.0m	6.0m	5.0m	4.0m	2.0m
Canopy	5.0m	6.0m	4.0m	5.0m	2.0m
Age	Young	Mature	Young	Young	Mature
Life Expect.	15-40yrs	5-15yrs	15-40yrs	15-40yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Native	Native	Native	Native	Exotic
Crown Class	Dominant	Codominant	Dominant	Dominant	Dominant
Crown Cond.	4 Good	3 Average/Low	4 Good	4 Good	2 Decline
Health & Cond.	MA		MA	MA	
TreeAZ	Z8	A	Z8	Z8	A
TPO Protected	Yes	Yes	Yes	Yes	No
TPZ	2.0m	3.4m	2.0m	2.0m	2.0m
Tree no.	131	132	133	134	135
Species	Malus sp (Apple)	Gleditsia triacanthos (Honey Locust)	Gleditsia triacanthos (Honey Locust)	Olea europaea subsp. cuspidata (African Olive)	Pyrus sp (Pear)
DBH	15cm	17cm	17cm	17cm	20cm
DGL	25cm	30cm	30cm	20cm	20cm
Height	3.0m	3.0m	3.0m	2.0m	4.0m
Canopy	4.0m	3.0m	3.0m		2.0m
Age	Young	Mature	Mature	Mature	Mature
Life Expect.	15-40yrs	15-40yrs	15-40yrs	15-40yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Exotic	Exotic	Exotic	Exotic	Exotic
Crown Class	Codominant	Codominant	Codominant	Dominant	Dominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					
TreeAZ	Z1	Z1	Z1	A	A
TPO Protected	Yes	No	No	Yes	Yes
TPZ	1.8m	2.0m	2.0m	2.0m	2.4m

Tree no.	136	137	138	139	140
Species	Pyrus sp (Pear)	Pyrus sp (Pear)	Pyrus sp (Pear)	Citrus sp (Citrus)	Ficus carica (Common Fig)
DBH	20cm	20cm	20cm	22cm	17cm
DGL	20cm	20cm	20cm	30cm	30cm
Height	3.0m	3.0m	3.0m	1.5m	3.0m
Canopy	2.0m	2.0m	2.0m	3.0m	5.0m
Age	Mature	Mature	Mature	Mature	Semi Mature
Life Expect.	5-15yrs	5-15yrs	5-15yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Exotic	Exotic	Exotic	Exotic	Exotic
Crown Class	Dominant	Dominant	Dominant	Dominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					
TreeAZ	Z1	Z1	Z1	Z1	Z1
TPO Protected	No	No	No	No	Yes
TPZ	2.4m	2.4m	2.4m	2.6m	2.0m
Tree no.	141	142	143	144	145
Species	Gleditsia triacanthos (Honey Locust)	Jacaranda mimosifolia (Jacaranda)	Lagerstroemia indica (Crepe Myrtle)	Macadamia integrifolia (Macadamia Nut)	Lagerstroemia indica (Crepe Myrtle)
DBH	20cm	34cm	22cm	17cm	22cm
DGL	20cm	40cm	60cm	60cm	50cm
Height	6.0m	7.0m	4.0m	4.0m	6.0m
Canopy	6.0m	6.0m	6.0m	6.0m	6.0m
Age	Semi Mature	Young	Mature	Mature	Mature
Life Expect.	15-40yrs	40+yrs	40+yrs	40+yrs	40+yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Exotic	Exotic	Exotic	Native	Exotic
Crown Class	Codominant	Dominant	Dominant	Dominant	Dominant
Crown Cond.	3 Average/Low	4 Good	3 Average/Low	5 Excellent	3 Average/Low
Health & Cond.		BI			
TreeAZ	Z1	A	A	A	A
TPO Protected	No	Yes	Yes	Yes	Yes
TPZ	2.4m	4.1m	2.6m	2.0m	2.6m

Tree no.	146	147	148	149	150
Species	Malus sp (Apple)	Juniperus chinensis (Chinese Juniper)	Ligustrum lucidum (Large Leaf Privet)	Melaleuca sp (Paperbark)	gone
DBH	17cm	28cm	17cm	17cm	
DGL	20cm	40cm	20cm	20cm	
Height	2.0m	4.0m		2.0m	
Canopy	2.0m	4.0m		2.0m	
Age	Mature	Mature	Mature	Young	
Life Expect.	5-15yrs	15-40yrs	15-40yrs	15-40yrs	
Location	On Site	On Site	On Site	On Site	On Site
Type	Exotic	Exotic	Noxious Weed - 4	Indigenous	
Crown Class	Codominant	Dominant		Codominant	
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	
Health & Cond.					
TreeAZ	Z1	A	Z2	A	
TPO Protected	No	Yes	Yes	Yes	
TPZ	2.0m	3.4m	2.0m	2.0m	
Tree no.	151	152	153	154	155
Species	Schinus molle var. areira (Peppercorn Tree)	Gleditsia triacanthos (Honey Locust)	Eucalyptus longifolia (Woollybutt)	Jacaranda mimosifolia (Jacaranda)	Jacaranda mimosifolia (Jacaranda)
DBH	17cm	17cm	64cm	17cm	17cm
DGL	20cm	20cm	80cm	30cm	30cm
Height	2.0m	4.0m	10.0m	3.0m	4.0m
Canopy	2.0m	4.0m	15.0m	4.0m	4.0m
Age	Young	Semi Mature	Mature	Young	Young
Life Expect.	15-40yrs	15-40yrs	40+yrs	40+yrs	40+yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Exotic	Exotic	Indigenous	Exotic	Exotic
Crown Class	Dominant	Dominant	Dominant	Dominant	Dominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	4 Good	3 Average/Low
Health & Cond.			CDTR PE		
TreeAZ	Z1	Z1	A	A	A
TPO Protected	No	No	Yes	Yes	Yes
TPZ	2.0m	2.0m	7.7m	2.0m	2.0m

Tree no.	156	157	158	159	160
Species	Dead	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Gleditsia triacanthos (Honey Locust)
DBH		25cm	64cm	25cm	17cm
DGL		40cm	80cm	40cm	20cm
Height		7.0m	10.0m	7.0m	2.5m
Canopy		4.0m	8.0m	4.0m	1.0m
Age		Semi Mature	Mature	Semi Mature	Young
Life Expect.	Dead	15-40yrs	40+yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type		Indigenous	Indigenous	Indigenous	Exotic
Crown Class		Dominant	Dominant	Dominant	Dominant
Crown Cond.	0 Dead	3 Average/Low	4 Good	3 Average/Low	3 Average/Low
Health & Cond.					
TreeAZ	Z1	A	A	A	Z1
TPO Protected	No	Yes	Yes	Yes	No
TPZ		3.0m	7.7m	3.0m	2.0m
Tree no.	161	162	163	164	165
Species	Melaleuca bracteata (Revolution Green)	Casuarina glauca (Swamp Oak)	Melaleuca bracteata (Revolution Green)	Casuarina glauca (Swamp Oak)	Melaleuca bracteata (Revolution Green)
DBH	17cm	50cm	35cm	5cm	17cm
DGL	20cm	70cm	40cm	20cm	20cm
Height	2.0m	8.0m	7.0m	3.0m	2.0m
Canopy	2.0m	10.0m	5.0m	2.0m	2.0m
Age	Young	Mature	Mature	Young	Semi Mature
Life Expect.	5-15yrs	15-40yrs	5-15yrs	15-40yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Native	Indigenous	Native	Indigenous	Native
Crown Class	Codominant	Dominant	Codominant	Codominant	Supressed
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.	LN	CDI			
TreeAZ	Z4	A	A	Z1	Z8
TPO Protected	No	Yes	Yes	No	No
TPZ	2.0m	6.0m	4.2m	0.6m	2.0m

Tree no.	166	167	168	169	170
Species	Casuarina glauca (Swamp Oak)	Melaleuca bracteata (Revolution Green)	Araucaria heterophylla (Norfolk Island Pine)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	54cm	17cm	20cm	17cm	44cm
DGL	90cm	20cm	20cm	20cm	50cm
Height	10.0m	2.0m	7.0m	7.0m	9.0m
Canopy	12.0m	3.0m	2.0m	2.0m	8.0m
Age	Mature	Semi Mature	Young	Young	Young
Life Expect.	15-40yrs	5-15yrs	40+yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Native	Native	Indigenous	Indigenous
Crown Class	Dominant	Supressed	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.	BI CDI				
TreeAZ	A	Z8	Z3	A	A
TPO Protected	Yes	No	Yes	Yes	Yes
TPZ	6.5m	2.0m	2.4m	2.0m	5.3m
Tree no.	171	172	173	174	175
Species	Casuarina glauca (Swamp Oak)	Dead	Eucalyptus tereticornis (Forest Red Gum)	Photinia robusta (Photinia)	Opuntia stricta (Prickly Pear)
DBH	44cm		50cm	17cm	
DGL	50cm		55cm	20cm	
Height	9.0m		13.0m	3.0m	
Canopy	8.0m		8.0m	5.0m	
Age	Young		Young	Mature	Mature
Life Expect.	15-40yrs	Dead	40+yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous		Indigenous	Exotic	Noxious Weed - 4
Crown Class	Codominant		Dominant	Dominant	
Crown Cond.	3 Average/Low	0 Dead	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.			DW		
TreeAZ	A	Z1	A	Z1	Z1
TPO Protected	Yes	No	Yes	Yes	No
TPZ	5.3m		6.0m	2.0m	

Tree no.	176	177	178	179	180
Species	Photinia robusta (Photinia)	Acacia decurrens (Black Wattle)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	17cm	17cm	17cm	17cm	17cm
DGL	20cm	40cm	20cm	20cm	20cm
Height	3.0m	6.0m	7.0m	7.0m	7.0m
Canopy	5.0m	10.0m	2.0m	2.0m	2.0m
Age	Mature	Semi Mature	Young	Young	Young
Life Expect.	15-40yrs	<5yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Exotic	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Dominant	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	1 Severe Decline	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.		DL			
TreeAZ	Z1	Z3	A	A	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.0m	2.0m	2.0m	2.0m	2.0m
Tree no.	181	182	183	184	185
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Pinus radiata (Monterey Pine)	Casuarina glauca (Swamp Oak)
DBH	17cm	30cm	17cm	40cm	42cm
DGL	20cm	45cm	20cm	40cm	60cm
Height	7.0m	11.0m	7.0m	10.0m	8.0m
Canopy	2.0m	4.0m	2.0m	6.0m	7.0m
Age	Young	Semi Mature	Young	Semi Mature	Mature
Life Expect.	15-40yrs	15-40yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Exotic	Indigenous
Crown Class	Codominant	Codominant	Codominant	Dominant	Dominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					BI
TreeAZ	A	A	A	A	Z4
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.0m	3.6m	2.0m	4.8m	5.0m

Tree no.	186	187	188	189	190
Species	Acacia sp (Wattle)	Pinus radiata (Monterey Pine)	Melaleuca bracteata (Revolution Green)	Callistemon viminalis (Weeping Bottlebrush)	Casuarina glauca (Swamp Oak)
DBH	17cm	45cm	17cm	17cm	17cm
DGL	20cm	50cm	20cm	20cm	20cm
Height	2.0m	12.0m	3.0m	2.0m	5.0m
Canopy	2.0m	6.0m	5.0m	2.0m	1.0m
Age	Young	Semi Mature	Young	Young	Young
Life Expect.	<5yrs	15-40yrs	<5yrs	15-40yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Exotic	Native	Native	Indigenous
Crown Class	Supressed	Dominant	Codominant	Supressed	Codominant
Crown Cond.	2 Decline	3 Average/Low	2 Decline	3 Average/Low	2 Decline
Health & Cond.	DL	BI	DL		
TreeAZ	Z3	A	Z3	Z8	Z1
TPO Protected	No	Yes	Yes	No	Yes
TPZ	2.0m	5.4m	2.0m	2.0m	2.0m
Tree no.	191	192	193	194	195
Species	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)	Casuarina glauca (Swamp Oak)
DBH	17cm	17cm	17cm	17cm	60cm
DGL	20cm	20cm	20cm	20cm	60cm
Height	5.0m	5.0m	5.0m	5.0m	11.0m
Canopy	1.0m	1.0m	1.0m	1.0m	7.0m
Age	Young	Young	Young	Young	Mature
Life Expect.	5-15yrs	5-15yrs	5-15yrs	5-15yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Indigenous	Indigenous	Indigenous	Indigenous
Crown Class	Codominant	Codominant	Codominant	Codominant	Dominant
Crown Cond.	2 Decline	2 Decline	2 Decline	2 Decline	3 Average/Low
Health & Cond.	DL	DL	DL	DL	SI
TreeAZ	Z1	Z1	Z1	Z1	A
TPO Protected	Yes	Yes	Yes	Yes	Yes
TPZ	2.0m	2.0m	2.0m	2.0m	7.2m

Tree no.	196	197	198	199	200
Species	Ligustrum lucidum (Large Leaf Privet)	Dead	Melaleuca bracteata (Revolution Green)	Melaleuca sp (Paperbark)	Melaleuca bracteata (Revolution Green)
DBH	17cm		20cm	43cm	20cm
DGL	20cm		20cm	70cm	20cm
Height			6.0m	8.0m	6.0m
Canopy			5.0m	6.0m	5.0m
Age	Mature		Mature	Mature	Mature
Life Expect.	15-40yrs	Dead	5-15yrs	15-40yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Noxious Weed - 4		Native	Indigenous	Native
Crown Class			Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	0 Dead	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					
TreeAZ	Z2	Z	A	A	A
TPO Protected	No	No	Yes	Yes	Yes
TPZ	2.0m		2.4m	5.2m	2.4m
Tree no.	201	202	203	204	205
Species	Callistemon viminalis (Weeping Bottlebrush)	Ligustrum lucidum (Large Leaf Privet)	Callistemon viminalis (Weeping Bottlebrush)	Ligustrum lucidum (Large Leaf Privet)	Ligustrum lucidum (Large Leaf Privet)
DBH	17cm	17cm	17cm	17cm	17cm
DGL	20cm	20cm	20cm	20cm	20cm
Height	2.5m		2.5m		
Canopy					
Age	Young	Mature	Young	Mature	Mature
Life Expect.	5-15yrs	15-40yrs	5-15yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Native	Noxious Weed - 4	Native	Noxious Weed - 4	Noxious Weed - 4
Crown Class	Codominant		Codominant		
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					
TreeAZ	Z8	Z2	Z8	Z2	Z2
TPO Protected	No	No	No	No	No
TPZ	2.0m	2.0m	2.0m	2.0m	2.0m

Tree no.	206	207	208	209	210
Species	Ligustrum lucidum (Large Leaf Privet)	Callistemon viminalis (Weeping Bottlebrush)	Callistemon viminalis (Weeping Bottlebrush)	Ligustrum lucidum (Large Leaf Privet)	Melaleuca sp (Paperbark)
DBH	17cm	17cm	17cm	17cm	34cm
DGL	20cm	20cm	20cm	20cm	30cm
Height		2.5m	2.5m		5.0m
Canopy					3.0m
Age	Mature	Young	Young	Mature	Semi Mature
Life Expect.	15-40yrs	5-15yrs	5-15yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Noxious Weed - 4	Native	Native	Noxious Weed - 4	Indigenous
Crown Class		Codominant	Codominant		Supressed
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					
TreeAZ	Z2	Z8	Z8	Z8	Z8
TPO Protected	No	No	No	No	Yes
TPZ	2.0m	2.0m	2.0m	2.0m	4.1m
Tree no.	211	212	213	214	215
Species	Melaleuca sp (Paperbark)	Malus sp (Apple)	Triadica sebifera (Chinese Tallow Tree)	Triadica sebifera (Chinese Tallow Tree)	Triadica sebifera (Chinese Tallow Tree)
DBH	34cm	17cm	17cm	17cm	17cm
DGL	30cm	20cm	20cm	20cm	20cm
Height	5.0m	2.5m	3.0m	3.0m	3.0m
Canopy	3.0m	2.0m	2.0m	2.0m	2.0m
Age	Semi Mature	Young	Young	Young	Young
Life Expect.	15-40yrs	5-15yrs	15-40yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Indigenous	Exotic	Exotic	Exotic	Exotic
Crown Class	Supressed	Codominant	Codominant	Codominant	Codominant
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low	3 Average/Low
Health & Cond.					
TreeAZ	Z8	Z1	Z1	Z1	Z1
TPO Protected	Yes	Yes	No	No	No
TPZ	4.1m	2.0m	2.0m	2.0m	2.0m

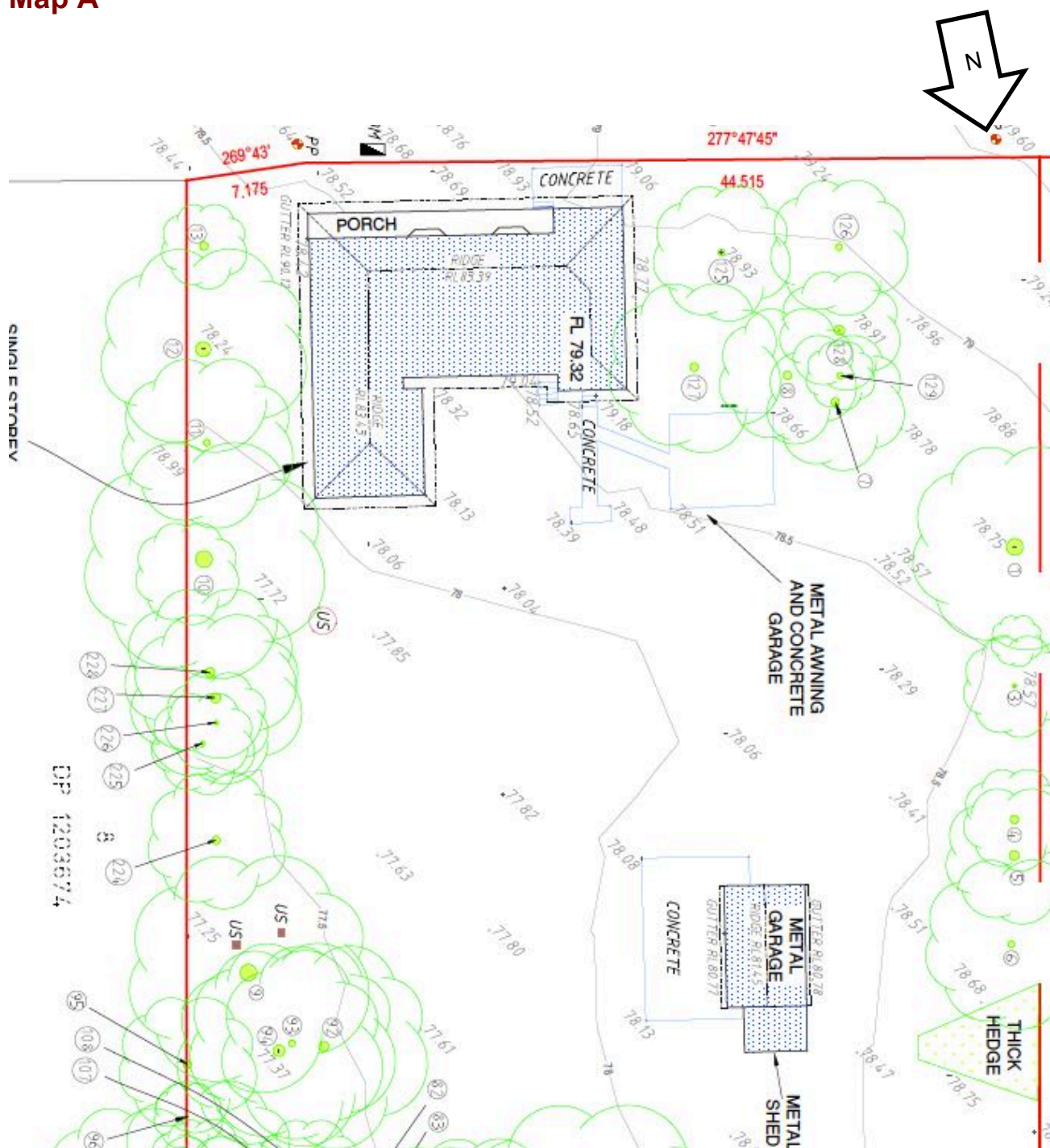
Tree no.	216	217	218	219	220
Species	Ligustrum lucidum (Large Leaf Privet)	Eriobotrya japonica (Loquat)	Malus sp (Apple)	Malus sp (Apple)	Morus sp (Mulberry)
DBH	17cm	17cm	17cm	40cm	40cm
DGL	20cm	20cm	20cm	50cm	50cm
Height		3.0m	4.0m	6.0m	6.0m
Canopy		3.0m	3.0m	6.0m	6.0m
Age	Mature	Mature	Mature	Mature	Mature
Life Expect.	15-40yrs	15-40yrs	<5yrs	15-40yrs	15-40yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Noxious Weed - 4	Exotic	Exotic	Exotic	Exotic
Crown Class		Dominant	Codominant	Dominant	Dominant
Crown Cond.	3 Average/Low	4 Good	2 Decline	3 Average/Low	3 Average/Low
Health & Cond.			DL		
TreeAZ	Z2	Z1	Z1	A	A
TPO Protected	No	No	Yes	Yes	Yes
TPZ	2.0m	2.0m	2.0m	4.8m	4.8m
Tree no.	221	222	223	224	225
Species	Ligustrum lucidum (Large Leaf Privet)	Eucalyptus moluccana (Grey Box)	could not locate	Callistemon citrinus (Lemon-scented Bottlebrush)	Callistemon viminalis (Weeping Bottlebrush)
DBH	17cm	70cm		17cm	35cm
DGL	20cm	70cm		25cm	50cm
Height		16.0m		4.0m	6.0m
Canopy		12.0m		4.0m	8.0m
Age	Mature	Mature		Mature	Mature
Life Expect.	15-40yrs	5-15yrs		15-40yrs	15-40yrs
Location	On Site	Adjoining		On Site	On Site
Type	Noxious Weed - 4	Indigenous		Native	Native
Crown Class		Codominant		Codominant	Dominant
Crown Cond.	3 Average/Low	1 Severe Decline		3 Average/Low	4 Good
Health & Cond.		DL DW			LN
TreeAZ	Z2	Z3		A	Z5
TPO Protected	No	Yes		Yes	Yes
TPZ	2.0m	8.4m		2.0m	4.2m

Tree no.	226	227	228	229	230
Species	Callistemon salignus (Willow Bottlebrush)	Callistemon viminalis (Weeping Bottlebrush)	Callistemon viminalis (Weeping Bottlebrush)	Casuarina glauca (Swamp Oak)	Callistemon viminalis (Weeping Bottlebrush)
DBH	40cm	17cm	17cm	20cm	17cm
DGL	50cm	20cm	20cm	30cm	20cm
Height	6.0m	2.5m	2.5m	9.0m	4.0m
Canopy	4.0m			2.0m	4.0m
Age	Mature	Young	Young	Young	Semi Mature
Life Expect.	15-40yrs	5-15yrs	5-15yrs	5-15yrs	5-15yrs
Location	On Site	On Site	On Site	On Site	On Site
Type	Native	Native	Native	Indigenous	Native
Crown Class	Dominant	Codominant	Codominant	Codominant	Supressed
Crown Cond.	3 Average/Low	3 Average/Low	3 Average/Low	2 Decline	3 Average/Low
Health & Cond.				TW DL	
TreeAZ	A	A	A	Z4	Z1
TPO Protected	Yes	No	No	Yes	Yes
TPZ	4.8m	2.0m	2.0m	2.4m	2.0m

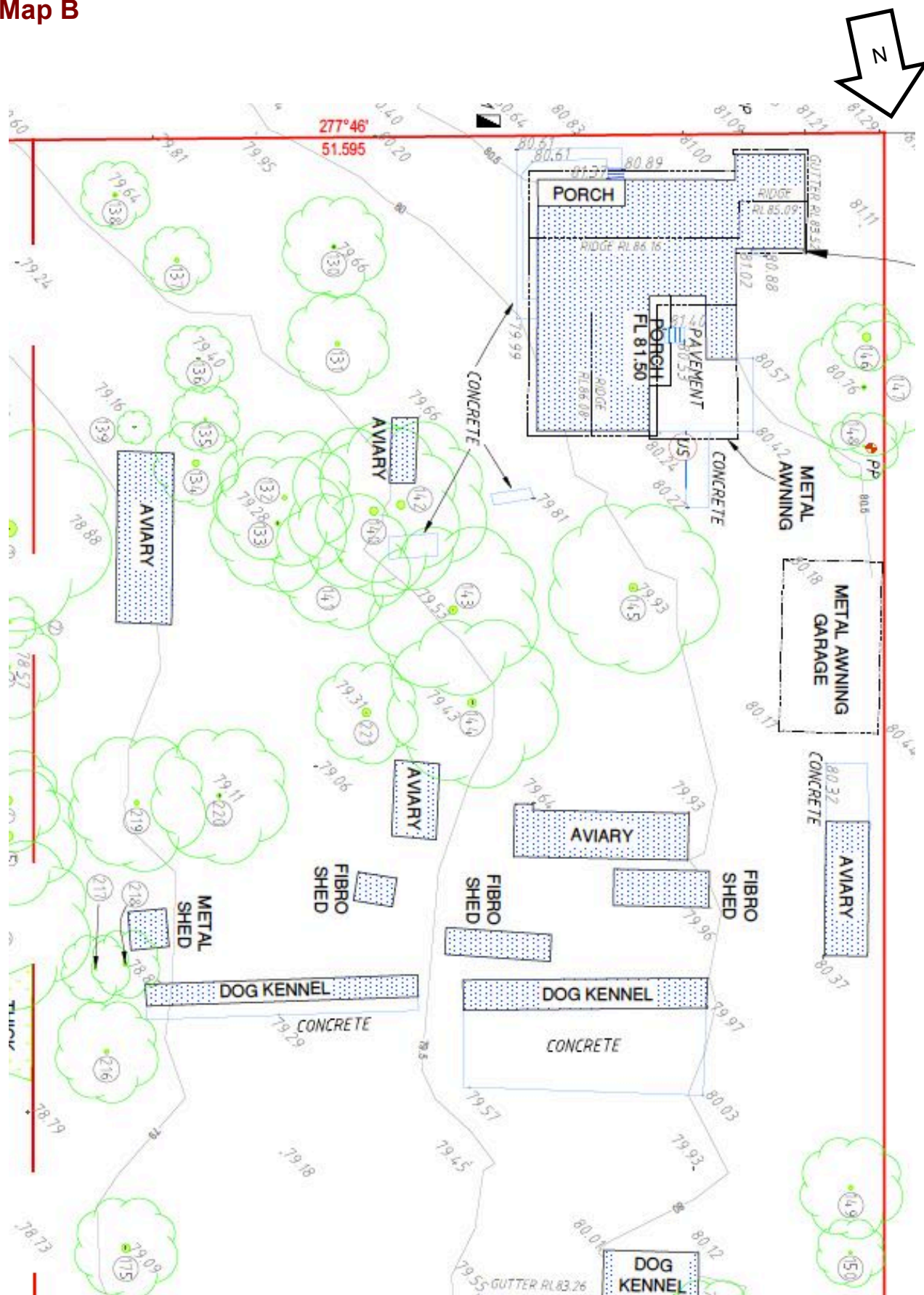
Appendix B - Tree Schedule Definitions

Dimensions	Diameter at breast height (1.4m) (mm) DBH Diameter at ground level (mm) DGL Approximate height x canopy spread (m) H x C			
Age Class	Sapling Mature	Young Over mature	Semi mature Senescent	
Life Expectancy	>5 years	5-15 years	15-40 years	40+ years
Crown Class	Dominant Co-dominant Intermediate Suppressed Dead	Crown extends above general canopy; not restricted by other trees. Crown forms the bulk of the general canopy but crowded by other trees. Crown extends into dominant/ co dominant canopy but quite crowded on all sides. Crown development restricted from overgrowing trees. Dead Tree		
Crown Condition / Vitality	1 Severe decline 2 Declining 3 Average / low vigour 4 Good 5 Excellent	<20% canopy density; major dead wood 20-60% canopy density; twig and branch dieback 60-90% canopy density; twig dieback 90-100% canopy density; little or no dieback or other problems 100% canopy density; no deadwood or other problems		
Location	Adjoining - Nature Strip	On Site	Adjoining Property	
Health & Condition	BI BW CDI CDTR CK DL DW EP KI	Branch Inclusion Branch Wound Codominant Trunk Inclusion Codominant Trunk Removal Canker Decline Deadwood Epicormic Growth Kino	PE PF SI SBW Term TFC TMB TMT WS	Pruning Events Previous Failures Scaffold Inclusion Scaffold Branch Wound Termite Evidence Termite Flight Cuts Termite Mound at Base Termite Mud Tracks Watersprouts

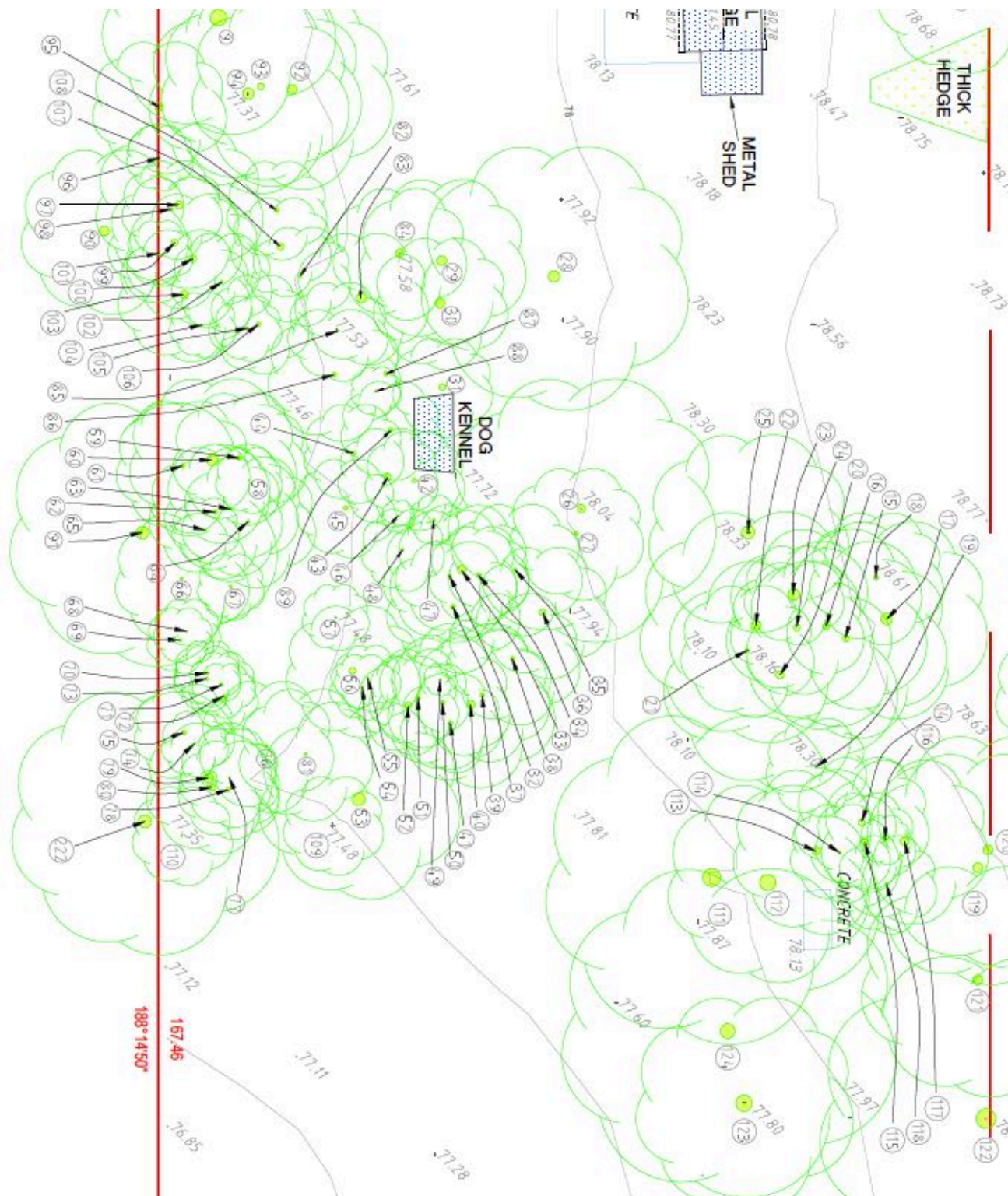
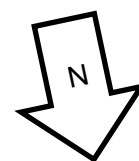
Appendix C - Tree Numbering Map A



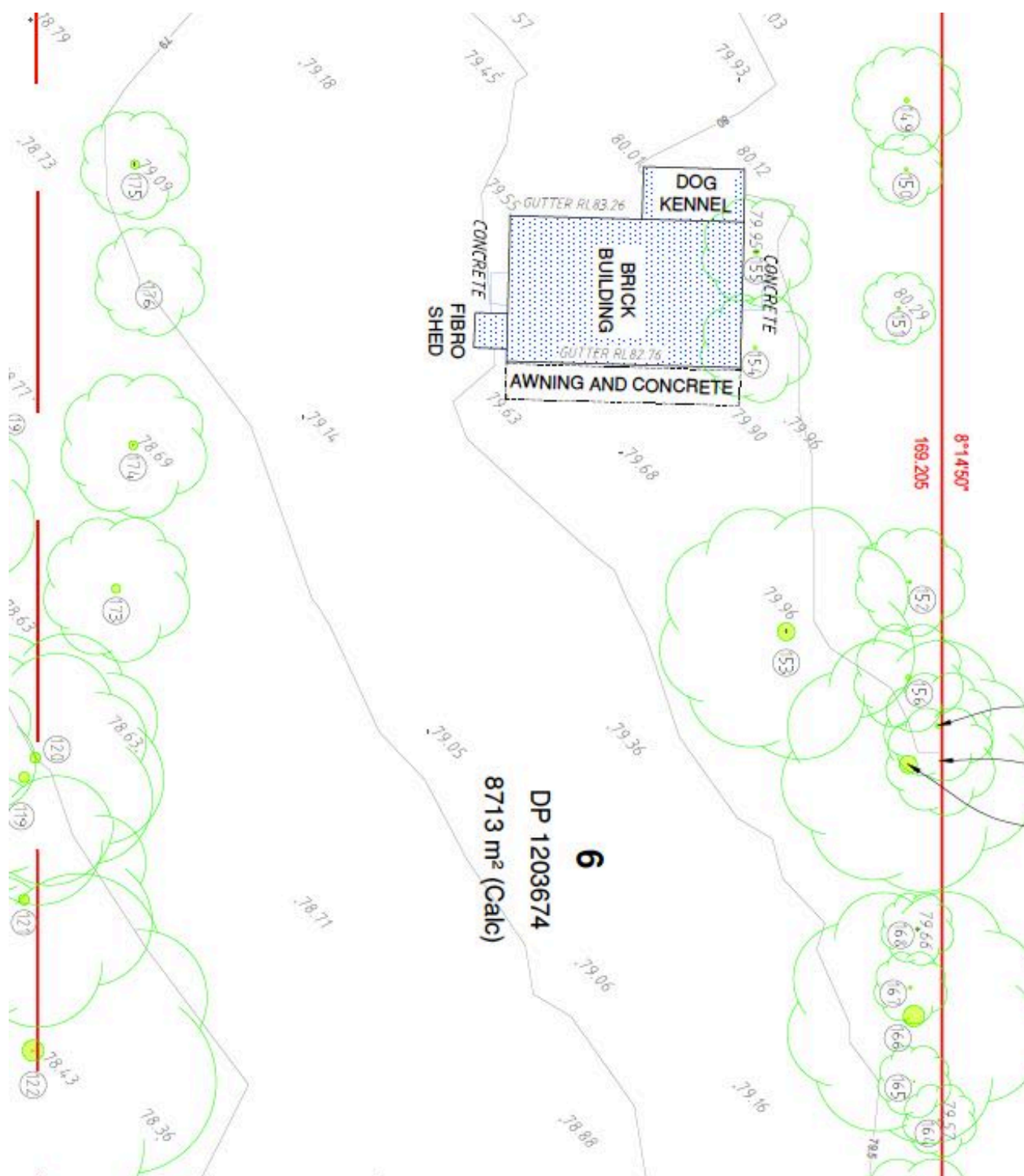
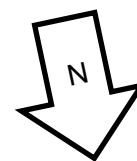
Map B



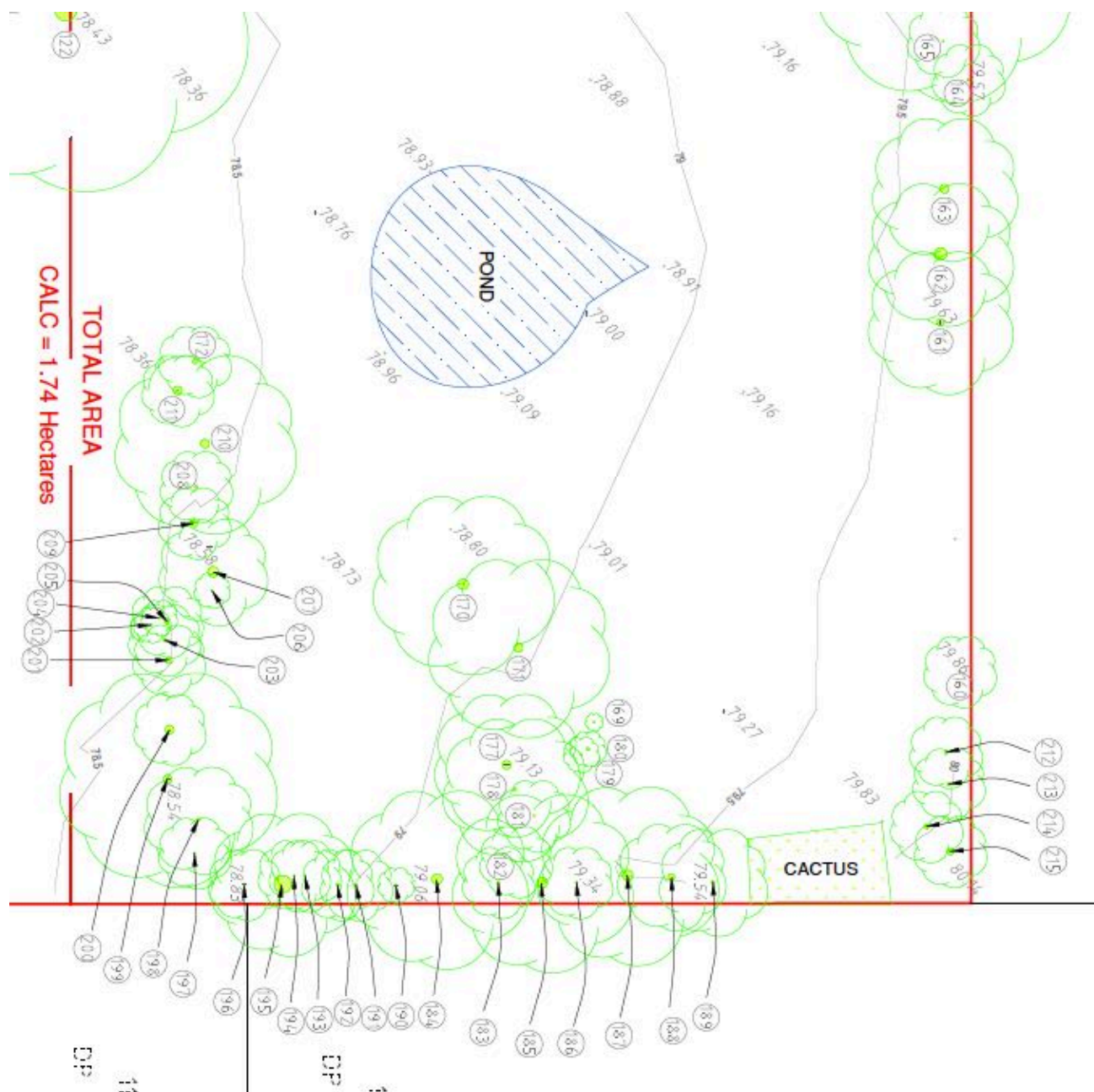
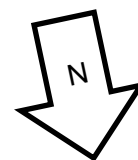
Map C



Map D



Map E



Appendix D - Photographs

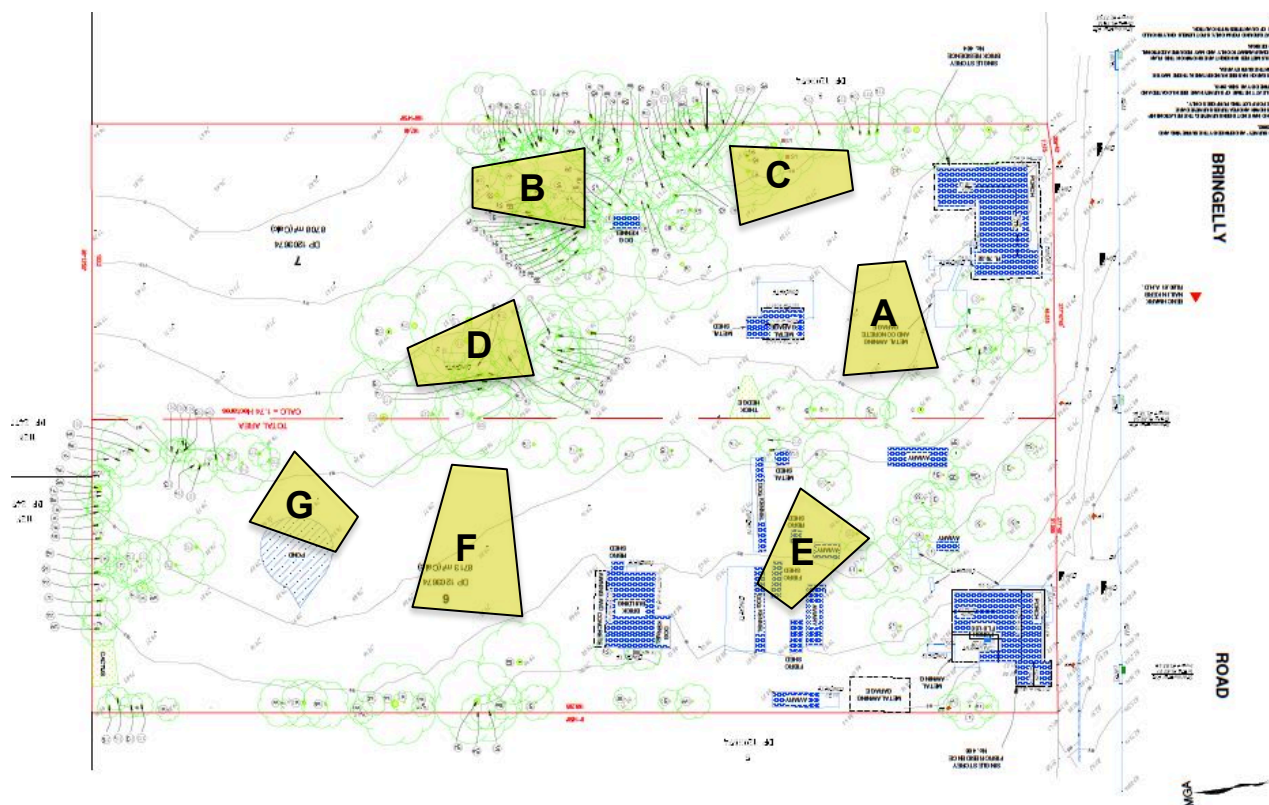


Figure 3 Photograph views



Figure 4. View 'A'



Figure 5. View 'B'



Figure 6. View 'C'



Figure 7. View 'D'



Figure 8. View 'E'

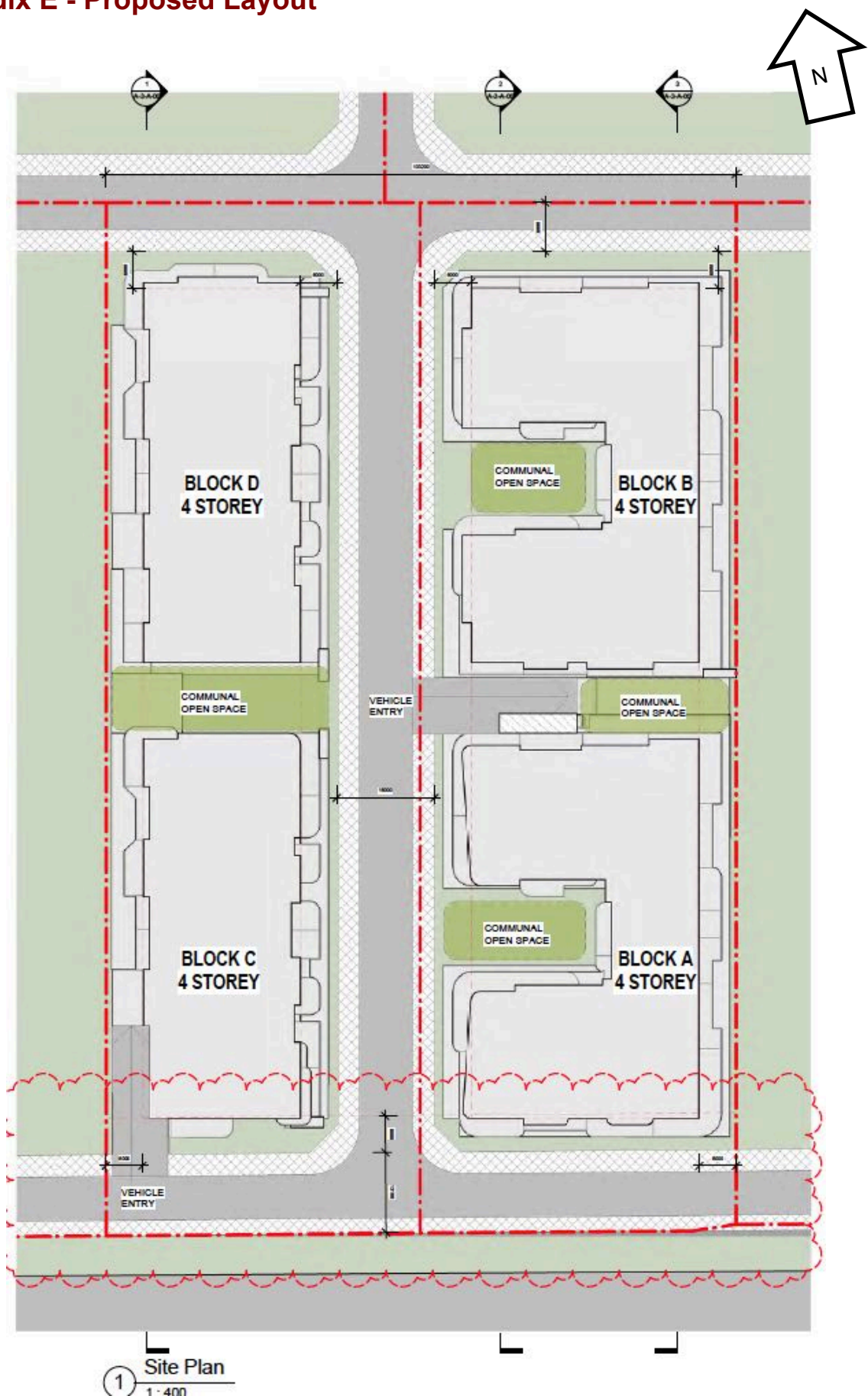


Figure 9. View 'F'



Figure 10. View 'G'

Appendix E - Proposed Layout



Appendix F - Glossary

Shigo, A.L. (1986) A New Tree Biology Dictionary.

*Docktor, D (2001) City of Palo Alto, Tree Technical Manual.

Bark*	All tissue outside the vascular cambium. Bark is usually divided into inner bark active phloem and aging and dead crushed phloem.
Basal	Lower trunk area of the tree.
Branch*	Organ which supports leaves, flowers and fruit.
Branch collar*	Trunk tissue that forms around the base of a branch between the main stem and the branch wood and trunk wood to meet. Formed by compaction or expansion as the girth of the branch and trunk increase.
Canopy	The part of the crown composed of the leaves and small twigs.
Cavity	An open wound, characterized by the presence of decay and resulting in a hollow (Matheny & Clarke, 1994).
Co dominant stems*	Stems or trunks of about the same size originating from the same position from the main stem.
Compaction	Compaction of soils causes roots to die due to lack of oxygen and water.
Compartmentalization*	Dynamic tree defense process involving protection features that resist the spread of pathogens.
Crown*	Portion of the tree consisting of branches and leaves and any part of the trunk from which branches arise.
Decay*	Degeneration and delignification of plant tissue, including wood, by pathogens or micro organisms.
Decline	Degeneration and delignification of plant tissue, including wood, by pathogens or micro organisms.
Dieback	Dieback is the reduction in the dynamic mass of a tree as twigs and branches die and are walled off by protection boundaries.
Epicormic shoots*	Shoots produced by dormant buds within the bark or stems of a tree as a result of stress, lopping or increase light. Epicormic shoots usually have a weaker form of branch attachment.
Hollows	Hollows form when wood-digesting micro-organisms digest wood within the boundaries set by the reaction zone or the barrier zone.
Included bark*	Inwardly formed bark at the junction of branches or codominant stems.
Kino	A dark red to brown resin-like substance produced by the trees in the genera Eucalyptus and other related genera. Kino forms when living cells are injured and infected.
Lopping*	Random cutting of branches or stems between branch union or at internodes on young trees.
Mycorrhiza	A symbiotic, non pathogenic, or weakly pathogenic association of fungi and non woody, absorbing roots of plants. The common belief is that the mycorrhiza help the tree with mineral absorption, especially phosphorus.
Microorganisms	An organism of microscopic size. Bacteria, the tree pathogens, may be as small as 3 microns wide by 5 microns long.
Pathogen	Any agent that causes disease.
Photosynthesis	A process where chlorophyll in plants traps the energy of the sun in a molecule of carbon dioxide and water that is called sugar.
Roots	An organ of a tree that serves to maintain mechanical support, to provide water and essential elements from the soil through absorption, and to store energy reserves.
Stem*	Organ which supports branches, leaves flowers and fruit.
Tree*	Long lived woody perennial plant greater than (or potentially greater than) 3m in height with one or relatively few stems.
Trunk*	The main stem.
Wound*	An opening that is created when the bark is cut, removed or injured.

Appendix G - TreeAZ (Barrell 2016)

TreeAZ field sheet

Heritage: Each tree is assessed by a visual check. If it is a designated heritage tree, then it is automatically categorized as AA, and is not subjected to any of the category ZZ, Z or A considerations.

Category ZZ (unsuitable for retention): Any remaining trees that are severely compromised and unsuitable for retention, even short term, are categorized as ZZ, i.e. Dead; irreversibly declining health; irremediable structural conditions; or, causing severe inconvenience to people or structural damage.

Category Z (low quality): Any remaining trees are systematically reviewed to decide if they fit into any of the four Z subcategory groups listed in the table below.

Category A (moderate quality): Any remaining trees are automatically category A, with the possibility of being promoted to category AA.

Category AA (high quality): If a category A tree is already Large, or has the potential to become so with limited intervention, it can be promoted to category AA, at the discretion of the assessor.

Category Z: Low quality trees not worthy of being material constraint

Z	Local policy exemptions: Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species	
	1	Size: Young or insignificant small trees, e.g. below the local size threshold for legal protection, etc
	2	Proximity, hedge or species: Exempt from legal protection because of proximity to structures, a maintained hedge or unsuitable species, e.g. scheduled noxious weed, out of character in a setting of acknowledged importance, etc
	Deteriorating health/condition: Trees that are likely to be removed within 10 years because of deteriorating health and/or structural condition	
	3	Health: Deteriorating health with little realistic prospect of recovery
	4	Crown instability: Deteriorating structural conditions where an increasing risk of failure can be temporarily addressed by reasonable intervention, e.g. storm damage, cavities, decay, included bark, wounds, excessive imbalance, etc
	5	Root instability: Deteriorating whole tree stability through poor anchorage, increased exposure to weather, etc
	Ongoing nuisance: Trees that are likely to be removed within 10 years because of unsuitable impact on people	
	6	Inconvenience: Ongoing and increasing inconvenience to residents to the extent that a locally recognised court or tribunal would be likely to authorise removal, e.g. dominance, debris, interference, etc
	7	Damage: Ongoing and increasing structural damage to property to the extent that a locally recognised court or tribunal would be likely to authorise removal, e.g. worsening damage to surfacing and structures, etc
	Good management: Trees that are likely to be removed within 10 years through responsible management of the tree population	
	8	No future potential: Poor condition or location with no realistic potential for recovery or improvement, e.g. dominated by adjacent trees or buildings, poor architectural framework, etc
	9	Benefit nearby trees: Removal would benefit better adjacent trees, e.g. relieve physical interference, suppression, etc
	10	Maintenance costs: Unacceptably high maintenance costs, e.g. structural conditions requiring high levels of regular pruning, etc

NOTE: Although Z trees are not worthy of influencing new designs, urgent removal is not essential and they could be retained in the short term, if appropriate

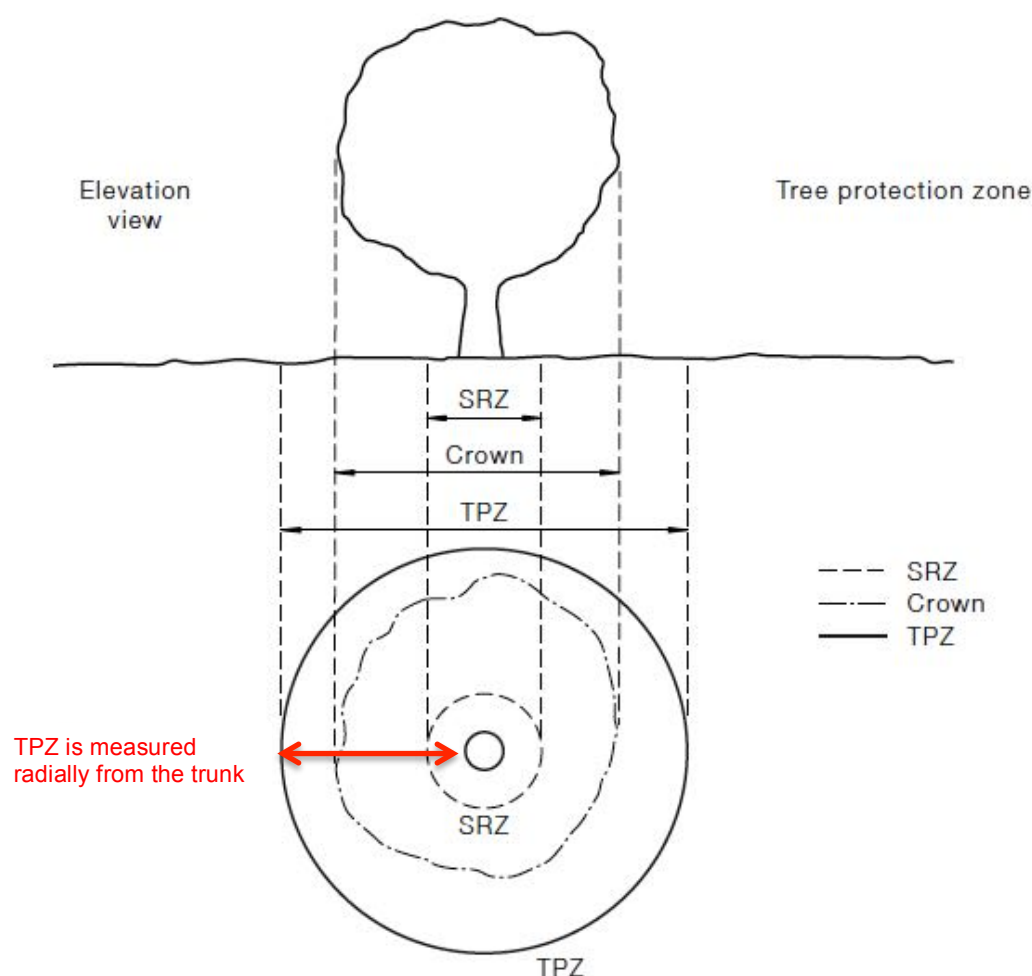
Categories A and AA: Moderate and high quality trees suitable for retention for more than 10 years, and worthy of being a material constraint

A	All trees that are not categories ZZ or Z that can be retained with limited intervention	
NOTE: Category A trees that are already large, or have the potential to become so, with limited intervention, can be promoted to category AA(1), at the discretion of the assessor. Designated heritage trees are automatically category AA(2). Although all category AA and A trees are sufficiently important to be material constraints, category AA trees are at the top of the categorization hierarchy and should be given the most weight in any selection process.		
AA	1	Single category A trees or small groups which, at the discretion of assessor, can be promoted to category AA because they are already large, or have the potential to become large
	2	Designated heritage tree

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Appendix H - Tree Protection Zones AS4970-2009

Protection of Trees On Development Sites



TREE PROTECTION ZONE (TPZ)

The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.

The TPZ incorporates the structural root zone (SRZ) (refer to Clause 3.3.5).

DETERMINING THE TPZ

The **radius** of the TPZ is calculated for each tree by multiplying its DBH × 12.

$$TPZ = DBH \times 12$$

where

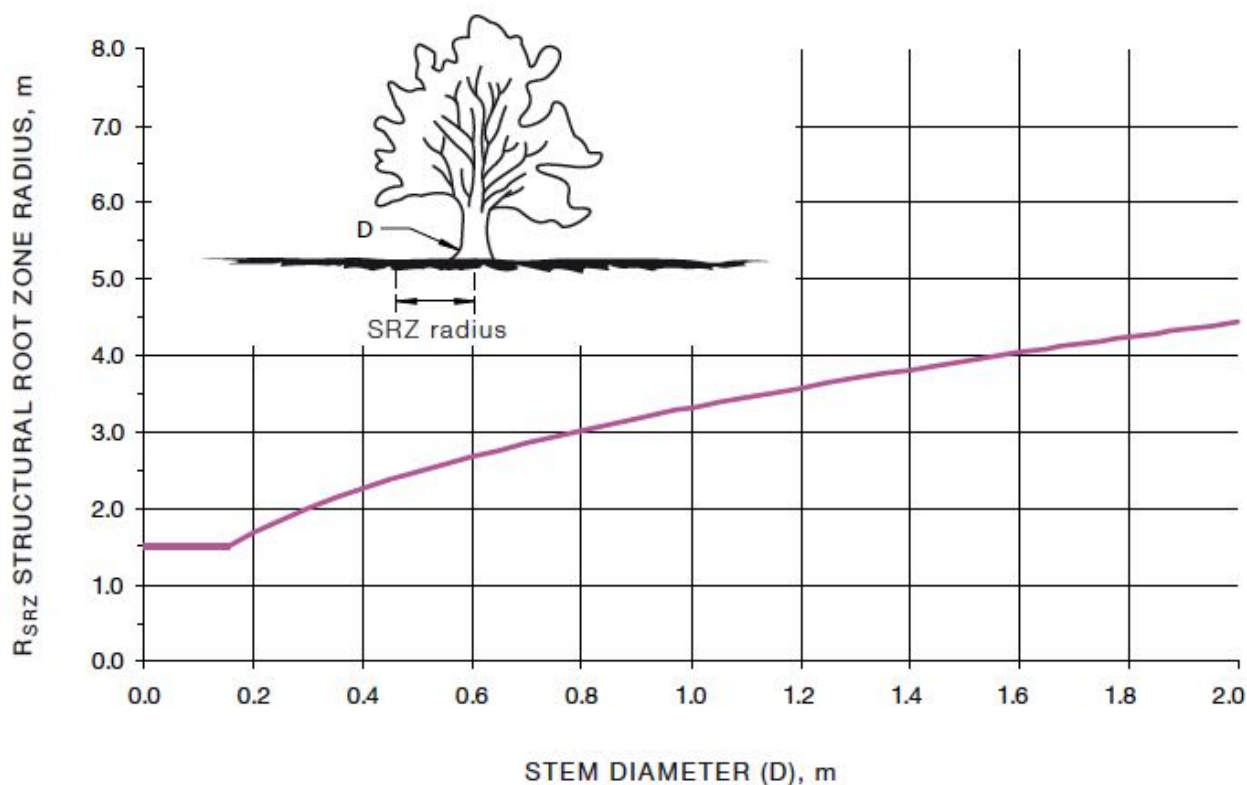
DBH = trunk diameter measured at 1.4 m above ground

Radius is measured from the centre of the stem at ground level.

A TPZ should not be less than 2 m nor greater than 15 m (except where crown protection is required). Clause 3.3 covers variations to the TPZ.

The TPZ of palms, other monocots, cycads and tree ferns should not be less than 1 m outside the crown projection.

Appendix I - Structural Root Zones AS4970-2009 (amdt 2010)




The curve can be expressed by the following formula:

$$R_{SRZ} = (D \times 50)^{0.42} \times 0.64$$

NOTES:

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

Appendix J - Qualifications & Experience

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Meredith Gibbs		
Qualifications:	Advanced Certificate in Urban Horticulture, 1999 Horticulture Diploma (Arboriculture), Level 5 - 2002, 2015 Collecting Catchment Data 2010 Quantified Tree Risk Assessment 2011, 2014 ISA Tree Risk Assessment Qualification (TRAQ) 2015	
Practical experience:	Australis Tree Management, Consulting Arborist (Owner/Operator) Jan 2000 Silver Springs Nursery (Owner/Operator) Feb 1997 Neil Clayton Lawns & Gardens (Horticulturist) Mar 1998 – Apr 2001 Davidson's Nurseries Pty Ltd (Horticulturist) Feb 1996 – Mar 1998	
Memberships and affiliations:	Arboricultural Association Arboriculture Australia Australian Institute of Horticulture International Society of Arboriculture Quantified Tree Risk Assessment Registered User Burrendong Botanic Garden & Arboretum	
Insurance	Professional Indemnity Insurance Liberty International Underwriters \$5,000,000.00 Policy No. HC-ME-SPC-01-104260 Public Liability Insurance Liberty International Underwriters \$20,000,000.00 Policy No. 463763	
Pro Bono Work	Middle Dural Public School	
Continuing professional development:	NAAA Conference, Mature Trees, 2001. Claus Mattheck Seminar 2001. ISAAC Conferences - Parramatta 2004, Brisbane 2008, Newcastle 2009, Adelaide 2010 AILA Tree Management Forum 2005. Jeremy Barrell Tree AZ & Report Writing Workshop 2006 A Practitioner's Guide to Visual Tree Assessment – Mike Ellison 2007 Quantified Tree Risk Assessment Workshop – Mike Ellison 2007 ISAAC Conference Workshop Dr. David Lonsdale 2008 ISAAC Conference Workshop Dr. Phillip Gibbons 2008 ISA International Conference Parramatta 2011 ISA International Conference Workshop Dr. Ken James 2011 Arboriculture Australia Annual Conference - Sunshine Coast 2014, Adelaide 2015, Canberra 2017 Jeremy Barrell Arboriculture Australia 2 day Workshop 2017	



Appendix K - References

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Appendix L - Disclaimer & Copyright

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