



## **Arboricultural Impact Assessment Report**

### **For the site address**

Brickworks Plant  
Lot 1(DP 785111) & Lot 1(DP 414246),  
No. 416 and 524 Berrima Road,  
MOSS VALE, NSW

### **Prepared for**

Austral Brick Company Pty Ltd  
C/- Willow Tree Planning

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## 1.0 Introduction

**1.1** *Allied Tree Consultancy* (ATC) has been commissioned by *Willow Tree Planning* to prepare an Arboricultural Impact Assessment for the development proposal at No. 416 Berrima Road, New Berrima. This proposal includes the construction of a proposed brick factory development. This report includes two hundred and twenty-seven trees located on, and adjacent to the lot, and discusses the viability of these trees based on the proposed works.

**1.2** This report will address for these trees, the:

- species' identification, location, dimensions, and condition;
- SULE (Safe Useful Life Expectancy) and STARS (Significance of a Tree Assessment Rating System) rating;
- discussion and impact of the proposed works on each tree;
- tree protection zones and protection specifications for trees recommended for retention.

## 2.0 Standards

**2.1** Allied Tree Consultancy provides an ethical and unbiased approach to all assignments, possessing no association with private utility arboriculture or organisations that may reflect a conflict of interest.

**2.2** This report must be made available to all contractors during the tendering process so that any cost associated with the required works for the protection of trees can be accommodated.

**2.3** **It is the responsibility of the project manager to provide the requirements outlined in this report relative to the Protection Zones, Measures (Section 7.0) and Specifications (Section 8.0) to all contractors associated with the project before the initiation of work.**

**2.4** All tree-related work outlined in this report is to be conducted in accordance with the:

- Australian Standard – AS4373; Pruning of Amenity Trees.
- Guide to Managing Risks of Tree Trimming and Removal Work<sup>1</sup>.
- All tree works must be carried out at a tertiary level (minimum Certificate-level 3) qualified and experienced (minimum five years) arboriculturist.
- For any works in the vicinity of electrical lines, the arboriculturist must possess the ISSC26 endorsement (Interim guide for operating cranes and plant in proximity to overhead powerlines).

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<sup>1</sup> Safe Work Australia; July 2016; Guide to Managing Risks of Tree Trimming and Removal Work, Australia

**2.5** As a minimum requirement, all trees recommended for retention in this report must have removed all dead, diseased, and crossing limbs and branch stubs to be pruned to the branch collar. This work must comply with the local government tree policy (Wingecarribee Shire Council) and Section 2.4.

**2.6** Any tree stock subject to conditions for works carried out in this report must be supplied by a registered Nursery that adheres to the AS 2303; 2015<sup>2</sup>.

- All tree stock must be of at least 'Advanced' size (minimum 75lt) unless otherwise requested.
- All tree stock requested must be planted with adequate protection. This may include tree guards (protect stem and crown) and if planted in a lawn area, a suitable barrier (planter ring) of an area, at least, 1m<sup>2</sup> to prevent grass from growing within the area adjacent to the stem.

### **3.0 Disclosure Statement**

Trees are living organisms and, for this reason, possess natural variability. This cannot be controlled. However, risks associated with trees can be managed. An arborist cannot guarantee that a tree will be safe under all circumstances, nor predict the time when a tree will fail. To live or work near a tree involves some degree of risk, and this evaluation does not preclude all the possibilities of failure.

### **4.0 Methodology**

**4.1** The following tree assessment was undertaken using criteria based on the guidelines laid down by the International Society of Arboriculture.

**4.2** The format of the report is summarised below;

**4.2.1 Plan 1;** Tree Location Relative to Site: This is an unscaled plan reproduced from the Survey Plan as referenced in Section 4.4.1, depicting the area of assessment.

**4.2.2 Table 1;** This table compiles the tree species, dimensions, brief assessment (history, structure, pest, disease or any other variables subject to the tree), significance, allocation of the zones of protection (i.e., Tree Protection Zone<sup>3</sup> ;TPZ and Structural Root Zone; SRZ) for each tree illustrated in Plan 1, Section 5.0. All measurements are in metres.

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<sup>2</sup> Australian Standard; 2015, AS2303, Tree stock for landscape use, Australia

<sup>3</sup> Australian Standard, 4970; 2009 – Protection of Trees on Development Sites, Australia

#### **4.2.3 Discussion relating to the site assessment and proposed works regarding the trees.**

**4.2.4 Protection Specification;** Section 8.0 details the requirements for that area designated as the Tree Protection Zone (TPZ), for those trees recommended for retention.

**4.3** The opinions expressed in this report, and the material, upon which they are based, were obtained from the following process and data supplied:

**4.3.1** Site assessment on the 9<sup>th</sup> and 10<sup>th</sup> March 2020 using the method of the Visual Tree Assessment<sup>4</sup>. This has included a Level 2 risk assessment, being a *Basic Assessment*<sup>5</sup>. The assessment has been conducted by Geoff Beisler<sup>6</sup> on behalf of *Allied Tree Consultancy*.

**4.3.2** Trees included in this report are those that conform to the description of a prescribed tree by the local government policy.

**4.3.3** All measurements, unless specified otherwise are taken from the tree centre.

**4.3.4** Tagging of trees with scribed aluminium tags nailed to the trees at chest level and facing the centre of the site.

**4.3.5** Raw data from the preliminary assessment including the specimen's dimensions was compiled by the use of a diameter tape, height clinometer, angle finder, compass, steel probes, Teflon hammer, binoculars and recording instruments.

#### **4.4 Documentation provided**

The following documentation has been provided to Allied Tree Consultancy and utilised within the report.

##### **4.4.1 Design**

Drawn by *SBA Architects*

Date: 31 October 2019

Reference: (Job No.) 19222

Drawing No: DA 101, DA102, DA103, DA104, DA111, DA201,  
DA202, DA211, (P1)

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<sup>4</sup> Mattheck, C. Breloer, H., 1994, The Body Language of Trees – A handbook for failure analysis  
The Stationary Office, London

<sup>5</sup> Dunster J.A., 2013, Tree Risk Assessment Manual, International Society of Arboriculture, 2013, USA

<sup>6</sup> Consulting Arborist, Diploma of Arboriculture (level 5)

Note 1: See Section 4.5.1

#### **4.4.2 Design**

Drawn by *AT and L*

Date: 28 February 2020

Reference: (Project No.) 17-470

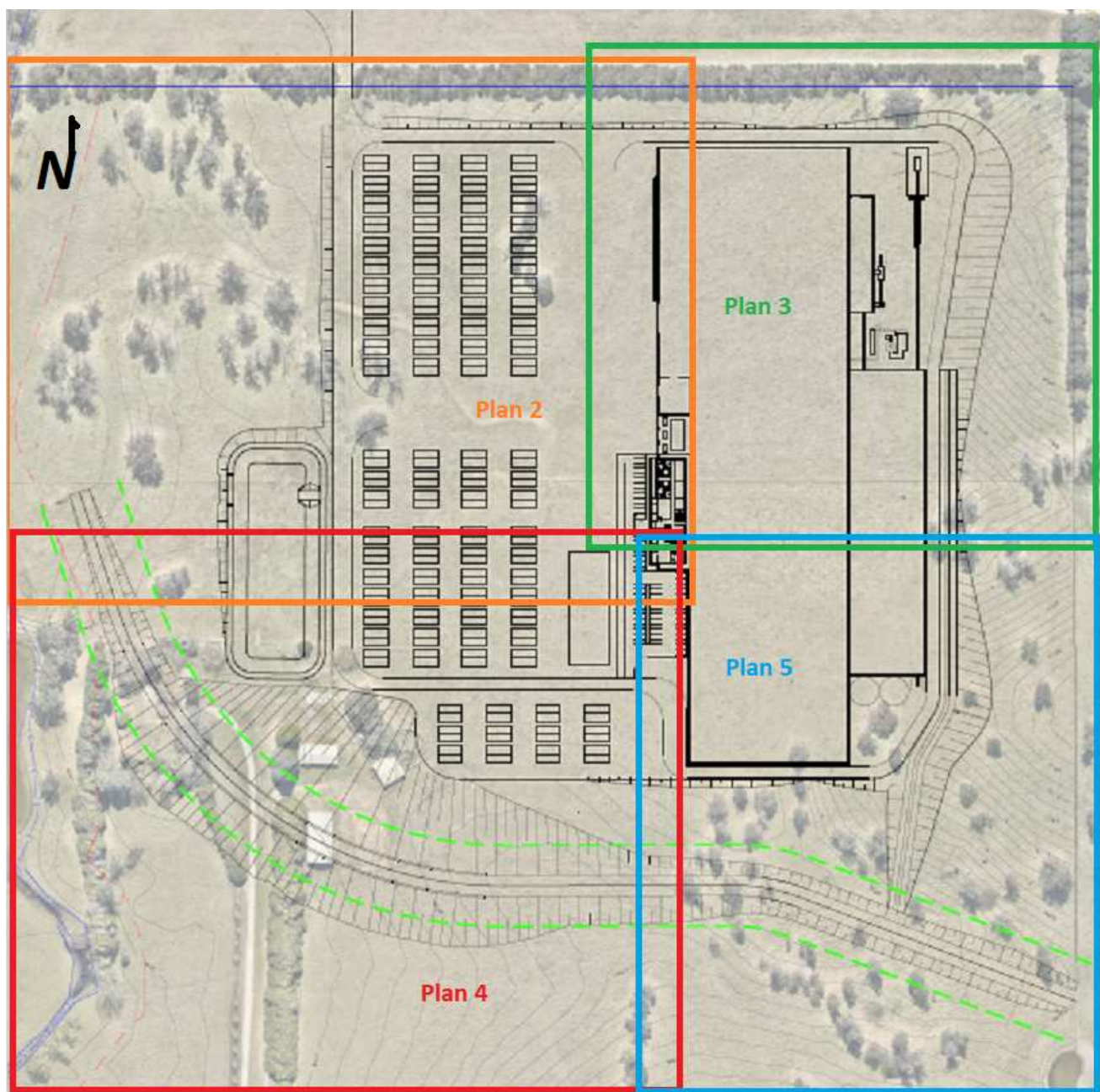
Drawing No: SKC001, (P2)

Note 1: See Section 4.5.1

### **4.5 Limitations of the assessment/discussion process**

- 4.5.1** All trees have been omitted from the plans provided, however, are required for inclusion because they conform to the definition of a prescribed tree based upon the local government tree policy. The tree location has been plotted onto the Plan 1 by *Allied Tree Consultancy*. The tree location was estimated based on the location of structures illustrated onto the drawings. *Allied Tree Consultancy* is not a registered surveyor and, however, the accuracy of the survey is attempted; the true position of the trees will deviate. This has limited the potential for determining the actual impact (encroachment) provided to a tree; therefore, nominations for tree retention and removal are estimated.
- 4.5.2** The assessment has considered only those target zones that are apparent to the author and the visually apparent tree conditions during the time of assessment.
- 4.5.3** Any tree regardless of apparent defects, would fail if the forces applied to exceed the strength of the tree or its parts, for example, extreme storm conditions.
- 4.5.4** The assessment has been limited to that part of the tree, which is visible, existing from the ground level to the crown. Root decay can exist and, in some circumstances, provide no symptoms of the presence. This assessment responds to all the symptoms provided by a tree, however, cannot provide a conclusive recommendation regarding any tree that may have extensive root decay that leads to windthrow without the appropriate symptoms.

## 5.0 Plan 1; Area of assessment

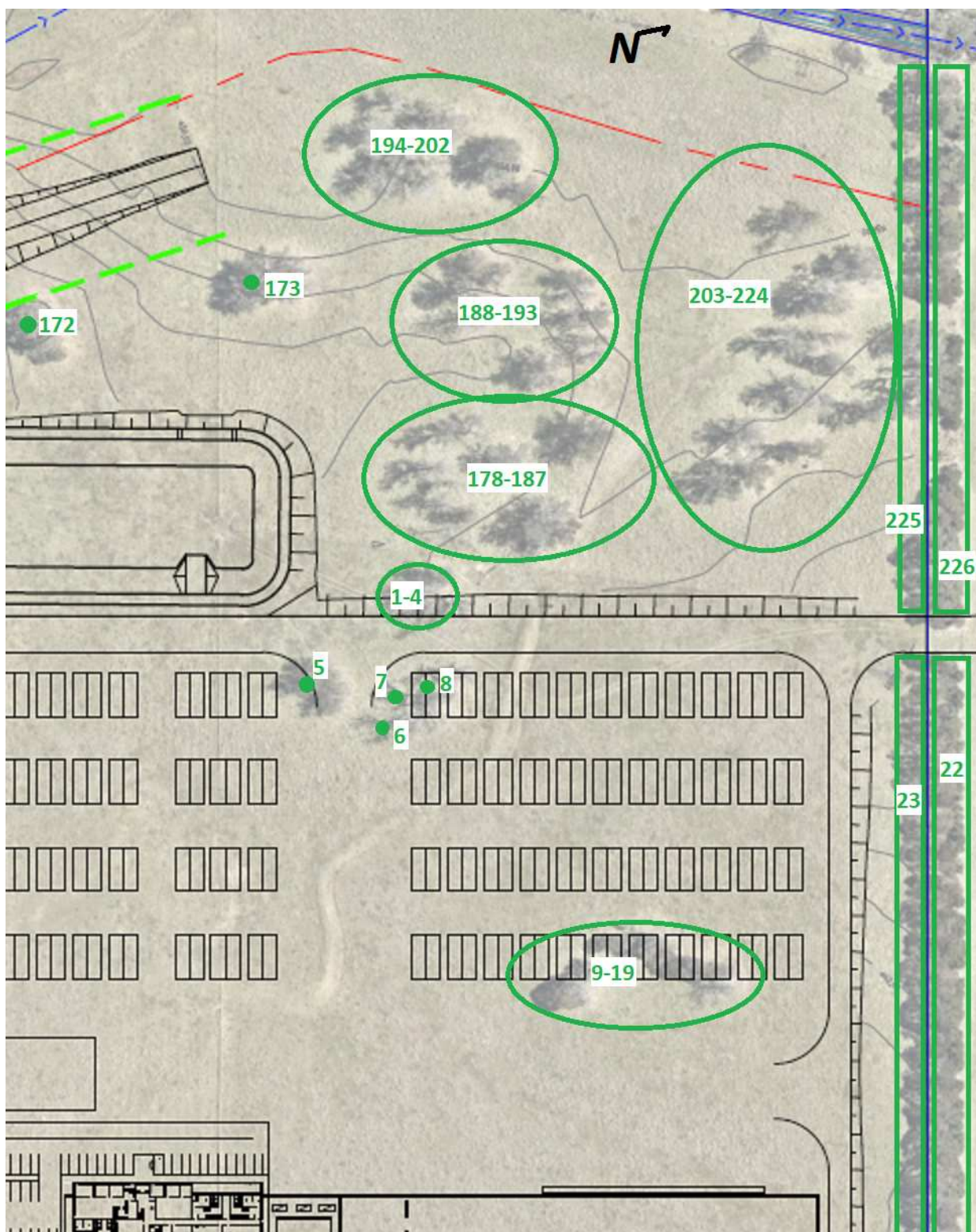


Not to scale

Source: Adapted from *A T and L*, see Section 4.4.2



### 5.1 Plan 2; Area of assessment illustrating tree location

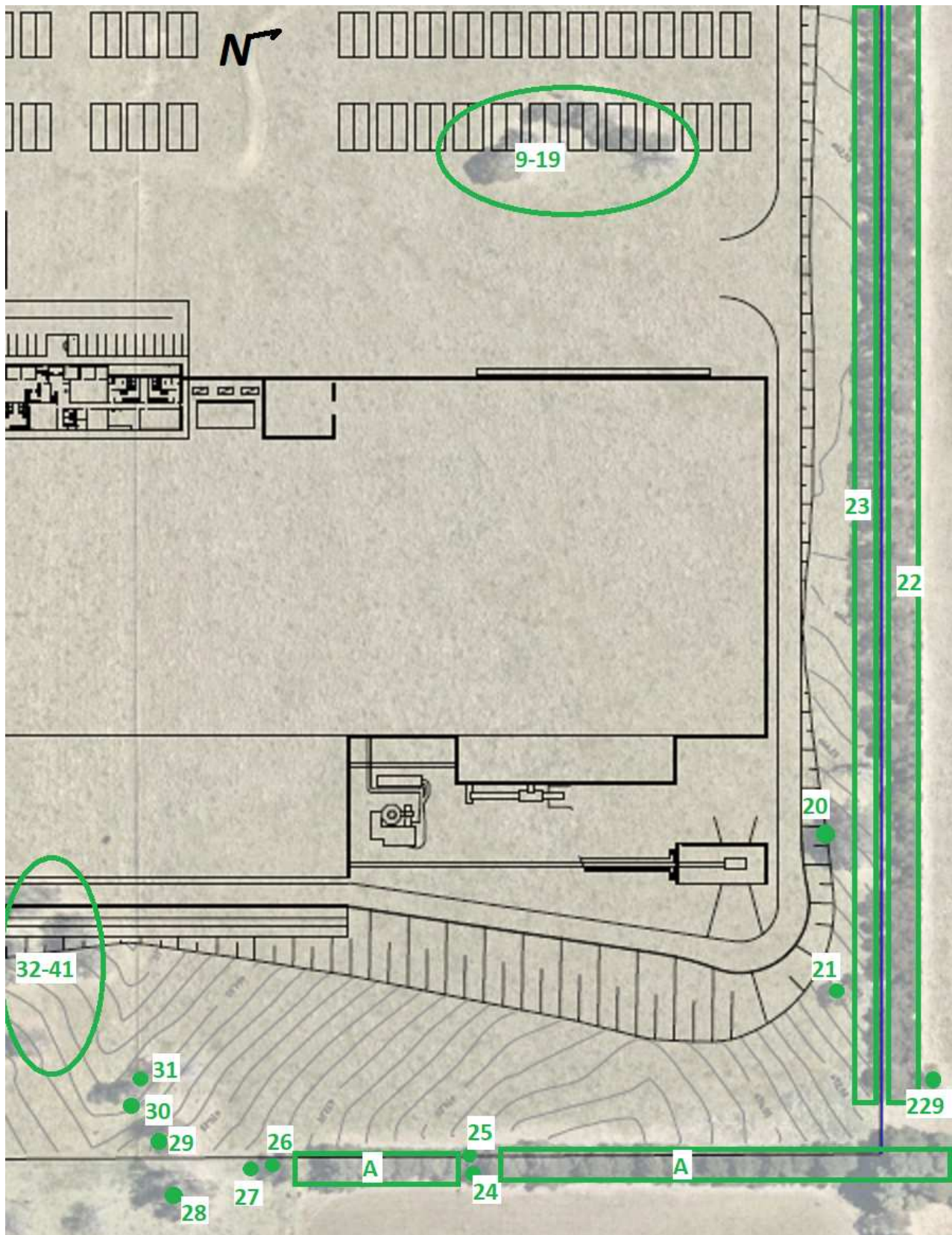


Not to scale

Source: Adapted from *A T and L*, see Section 4.4.2



## 5.2 Plan 3; Area of assessment illustrating tree location



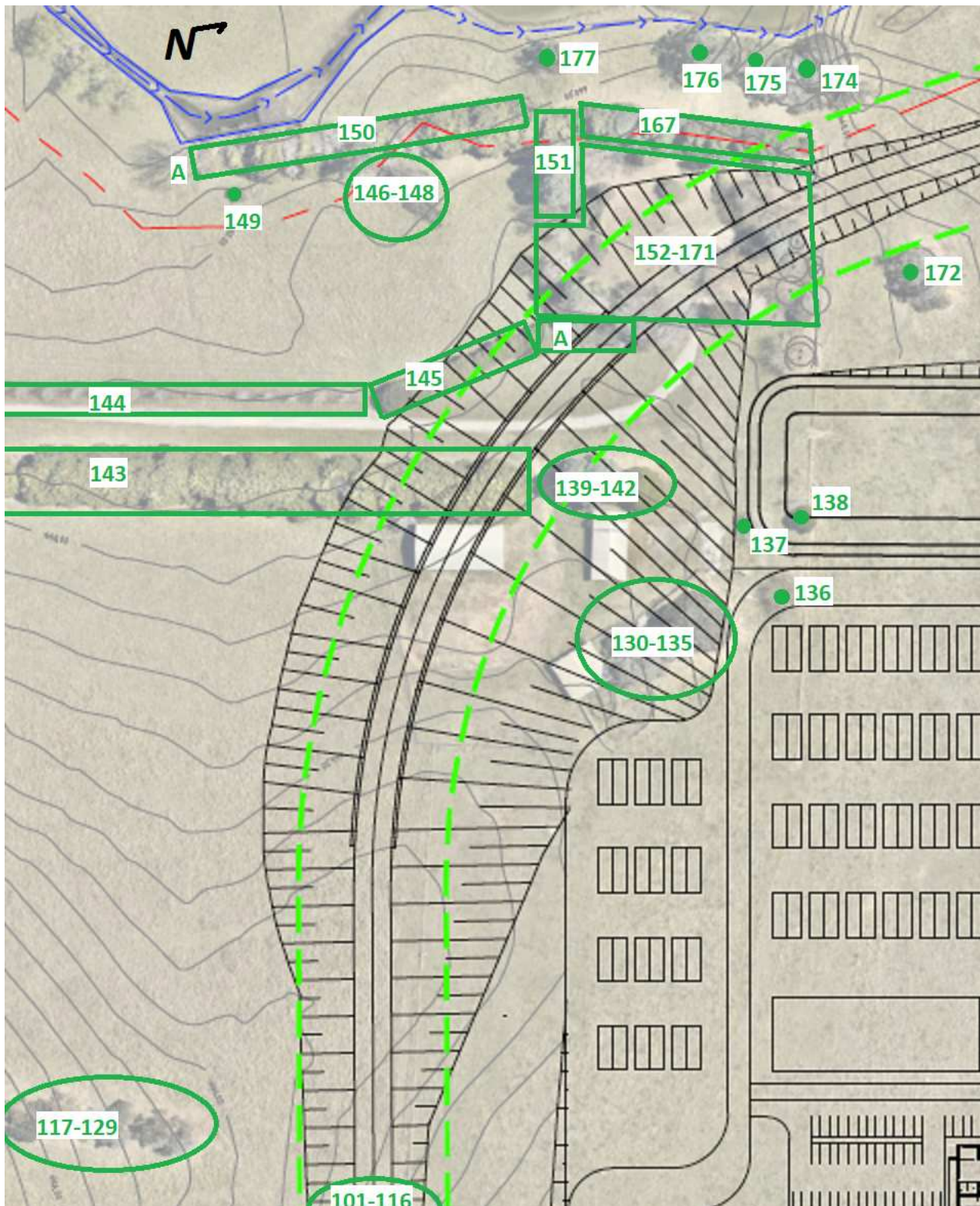
Not to scale

Trees labelled A, are exempt species, see Section 7.0.

Source: Adapted from *A T and L*, see Section 4.4.2



### 5.3 Plan 4; Area of assessment illustrating tree location



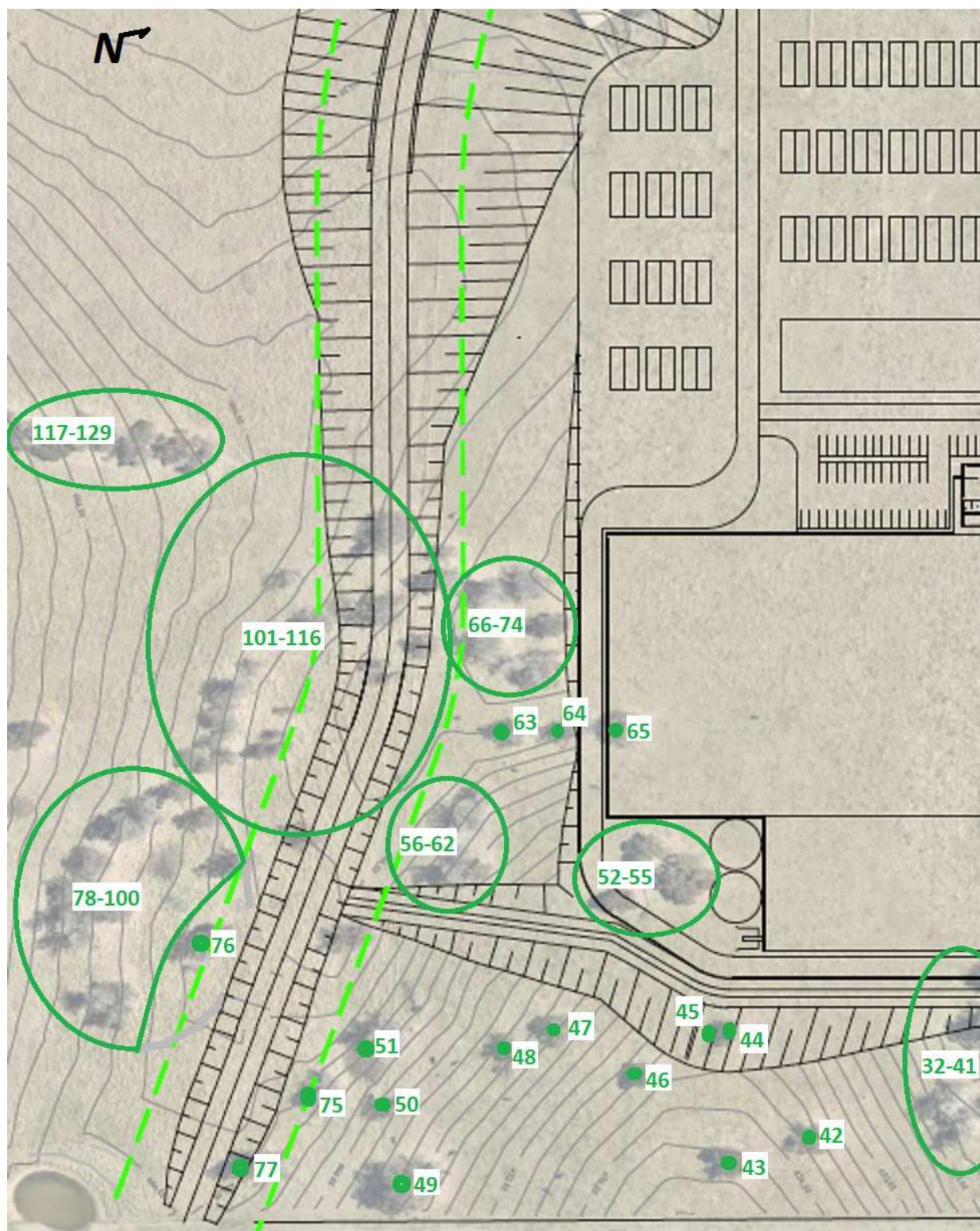
Not to scale

Trees labelled A, are exempt species, see Section 7.0.

Source: Adapted from A T and L, see Section 4.4.2



#### 5.4 Plan 5; Area of assessment illustrating tree location



Not to scale

Trees labelled A, are exempt species, see Section 7.0.

Source: Adapted from *A T and L*, see Section 4.4.2

## 6.0 Table 1 – Tree Species Data

Terminology/references provided in Appendix A.

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
1	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.60	7 x 9	M	D	N	B-C	A3	MEDIUM/ LOW	7.2	2.7
<b>Assessment</b> This tree presents the habit typical of species, however exhibits significant decline and epicormic growths. An open vertical wound at 6m, southern side presents a cavity. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
2	<i>Eucalyptus macarthurii</i> Camden Woollybutt	17	0.44	5 x 8	M	D	Sym.	B-C	A3/C4	MEDIUM/ LOW	5.3	2.4
<b>Assessment</b> This tree presents the habit typical of species, however exhibits significant decline and epicormic growths. An open wound at 10m, western side presents a cavity. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
3	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.40	5 x 5	M	S	S	B	A3/C4	LOW	4.8	2.3
<b>Assessment</b> This tree presents a basal pipe cavity. Decay is evident in the 1 <sup>st</sup> order branch at 3m, eastern side. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
4	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.58	3 x 4	M	D	W	C	A3/C4	MEDIUM/ LOW	6.9	2.6
<b>Assessment</b> This tree presents excessive decline and epicormic growths. A large basal wound reveals a pipe cavity. Further openings to this cavity are located at 4m and 7m. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
5	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	1.0 <sup>B</sup>	8 x 13	M	D	Sym.	B-C	A3/C4	MEDIUM/ LOW	12.0	3.4

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> Co-dominant at 1.7m, the union is actively failing. Multiple wounds reveal a large basal cavity and decay. The eastern stem presents a wound revealing decay at 5m. The western stem reveals decay at 1.7m. Excessive decline is evident. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
6	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.73	5 x 7	M	D	E	C	A3/A4	MEDIUM/ LOW	8.7	2.9
<b>Assessment</b> This tree presents significant decline, all foliage is epicormic. A vertical wound at 3m, western side presents swelling, suggesting internal decay. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
7	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.51	2 x 4	M	C	N	C	A4	LOW	6.2	2.5
<b>Assessment</b> This tree is 95% dead. Borer infestation is evident in the stem. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
8	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.73	4 x 9	M	D	N	B-C	C4/A3	MEDIUM/ LOW	8.7	2.9
<b>Assessment</b> This tree presents significant twiggy decline and epicormic growths. A vertical wound between 1m – 3m, southern side reveals a pipe cavity. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
9	<i>Eucalyptus tereticornis</i> Forest Red Gum	9	0.31	6 x 9	M	C	S	B	A2	MEDIUM	3.7	2.1
<b>Assessment</b> This tree presents partial crown density and some minor twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
10	<i>Eucalyptus cinerea</i> Argyle Apple	9	0.32	6 x 9	M	C	NE	A-B	A2	MEDIUM	3.8	2.1
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
11	<i>Eucalyptus cinerea</i> Argyle Apple	8	0.33	6 x 8	M	D	N	A-B	A2	MEDIUM	3.9	2.1



Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
12	<i>Eucalyptus cinerea</i> Argyle Apple	8	0.17 0.17	5 x 6	M	D	N	A-B	A2	MEDIUM	2.8	1.8
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. Co-dominant at 0.4m. <b>Proposed works;</b> See Section 7.1.3												
13	<i>Eucalyptus cinerea</i> Argyle Apple	10	0.31	7 x 7	M	D	Sym.	A-B	A2	MEDIUM	3.7	2.1
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
14	<i>Eucalyptus sp.<sup>A</sup></i> Eucalyptus	8	0.20	3 x 5	M	I	W	B	A3	LOW	2.4	1.7
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
15	<i>Eucalyptus cinerea</i> Argyle Apple	6	0.17	1 x 1	M	D	Sym.	C	A4	LOW	2.1	1.6
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
16	<i>Eucalyptus sp.<sup>A</sup></i> Eucalyptus	5	0.10	1 x 1	Y	I	W	C	A4	LOW	2.0	1.5
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
17	<i>Eucalyptus cinerea</i> Argyle Apple	8	0.47 <sup>B</sup>	3 x 5	M	C	E	B	A2	MEDIUM	5.6	2.4
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. Co-dominant at 0.2m. <b>Proposed works;</b> See Section 7.1.3												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
18	<i>Eucalyptus sp.</i> <sup>A</sup> Eucalyptus	9	0.20	3 x 5	M	C	N	A-B	A2	MEDIUM	2.4	1.7
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
19	<i>Eucalyptus cinerea</i> Argyle Apple	9	0.30 0.20	4 x 6	M	C	W	B-C	A3	MEDIUM/ LOW	4.3	2.2
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
20	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	1.05	17 x 17	M	D	Sym.	A-B	A2	HIGH	12.6	3.4
<b>Assessment</b> This tree presents the habit typical of species, however exhibits minor twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
21	<i>Eucalyptus radiata</i> Narrow Leaved Peppermint	6	0.40 <sup>B</sup>	4 x 5	M	D	N	A	C4	LOW	4.8	2.3
<b>Assessment</b> This tree has suffered catastrophic failure of the stem at 2m, only the lowest 1 <sup>st</sup> order branch remains. Decay is evident within the stem. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
22	<i>Cupressus x leylandii</i> Leyland cypress	7 (Average)	0.18 <sup>B</sup> (Average)	4 x 4 (Average)	M	C	Sym.	A	A2	MEDIUM	2.2	1.6
<b>Assessment</b> This is a linear planting of 188 specimens. <b>Proposed works;</b> See Section 7.1.1												
23	<i>Eucalyptus spp.</i> Various Eucalypts	11 (Average)	0.30 <sup>B</sup> (Average)	6 x 6 (Average)	M	C	S	B-C	A2/3	MEDIUM	3.6	2.0
<b>Assessment</b> This is a linear planting of 128 specimens. Dead trees are contained with the linear planting, however have not been included. <b>Proposed works;</b> See Section 7.1.1												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
24	<i>Melaleuca decora</i> <sup>A</sup> White Feather Honeymyrtle	4	0.15	3 x 4	M	S	E	A	A2	MEDIUM	2.0	1.5
<b>Assessment</b> No sample to aid in identification could be obtained due to barbed wire fencing. The numbered tag for this tree was attached to the fence immediately adjacent. <b>Proposed works;</b> See Section 7.1.1												
25	<i>Melaleuca decora</i> <sup>A</sup> White Feather Honeymyrtle	4	0.13	4 x 4	M	S	E	A	A2	MEDIUM	2.0	1.5
<b>Assessment</b> No sample to aid in identification could be obtained due to barbed wire fencing. The numbered tag for this tree was attached to the fence immediately adjacent. <b>Proposed works;</b> See Section 7.1.1												
26	<i>Eucalyptus macarthurii</i> <sup>A</sup> Camden Woollybutt	16	0.55 <sup>C</sup>	10 x 11	M	D	E	B	A2/3	MEDIUM/ HIGH	6.6	2.6
<b>Assessment</b> This neighbouring tree presents the habit typical of species, however exhibits some crown decline. No sample to aid in identification could be obtained due to barbed wire fencing and lack of access. The numbered tag for this tree was attached to the fence immediately adjacent. <b>Proposed works;</b> See Section 7.1.1												
27	<i>Eucalyptus macarthurii</i> <sup>A</sup> Camden Woollybutt	16	0.40 <sup>C</sup>	2 x 5	M	D	SW	C	A4	LOW	4.8	2.3
<b>Assessment</b> This neighbouring tree presents excessive decline. No sample to aid in identification could be obtained due to barbed wire fencing and lack of access. The numbered tag for this tree was attached to the fence immediately adjacent. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
28	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.29	4 x 4	M	D	Sym.	B	A2/3	LOW	3.5	1.9
<b>Assessment</b> This tree has suffered complete failure of the stem at 4.5m, only the lowest 1 <sup>st</sup> order branch remains. Borer infestation is evident in the stem.												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Proposed works;</b> See Section 7.1.1												
29	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.41	8 x 8	M	D	E	B	A2	MEDIUM	4.9	2.3
<b>Assessment</b> This tree presents decline in the upper crown. <b>Proposed works;</b> See Section 7.1.1												
30	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.41	2 x 4	M	D	S	C	A4	LOW	4.9	2.3
<b>Assessment</b> This tree presents excessive decline. Delaminating bark is evident. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
31	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.42	6 x 7	M	D	Sym.	B	A2/3	MEDIUM	5.1	2.3
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
32	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.40	5 x 5	M	C	E	B	A2/3	MEDIUM	4.8	2.3
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
33	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.50	6 x 9	M	C	N	B-C	A3	MEDIUM/ LOW	6.0	2.5
<b>Assessment</b> This tree presents significant decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
34	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.68 <sup>B</sup>	7 x 8	M	C	Sym.	C	A4	MEDIUM/ LOW	8.2	2.8
<b>Assessment</b> This tree presents significant decline, borer infestation and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
35	<i>Eucalyptus macarthurii</i> Camden Woollybutt	17	0.62	10 x 11	M	D	Sym.	B	A2/3	MEDIUM	7.4	2.7
<b>Assessment</b> This tree presents significant decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.4												
36	<i>Eucalyptus macarthurii</i> Camden Woollybutt	7	0.30	3 x 6	M	S	W	C	A4/C4	LOW	3.6	2.0
<b>Assessment</b> This tree presents excessive decline. Vertical wounding on the stem at 1.4m, northern side, exhibits associated swelling, suggesting internal decay. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
37	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.70	7 x 7	M	D	N	B-C	A3/4	MEDIUM	8.4	2.8
<b>Assessment</b> This tree presents excessive decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
38	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.60	4 x 7	M	D	N	B-C	A3/4	LOW	7.2	2.7
<b>Assessment</b> This tree has suffered complete failure of the stem at 9m. Excessive decline is evident. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
39	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.62	7 x 7	M	C	Sym.	B	A3	LOW	7.4	2.7
<b>Assessment</b> This tree has suffered complete failure of the stem at 9m. Significant decline is evident. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
40	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.49 0.49	-	M	C	Sym.	C	A4	LOW	8.3	2.8
<b>Assessment</b> Co-dominant at the base, this tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												



Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
41	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.60	7 x 8	M	C	N	C	A4	LOW	7.2	2.7
<b>Assessment</b> This tree presents excessive decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
42	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.57 0.39	8 x 11	M	D	Sym.	B	C4	LOW	8.3	2.8
<b>Assessment</b> This tree is composed of 2 stems at the base. The southern stem has a basal cavity, and the huge open wound in the inclusion at 4m is actively failing. A wound at the base of the northern stem (north side) reveals a basal cavity. The upper portion has suffered a very large failure, the open wound remains and decay is evident. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
43	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	1.0 <sup>BC</sup>	8 x 9	M	D	Sym.	B-C	A3/4	MEDIUM	12.0	3.3
<b>Assessment</b> This tree is multi-stemmed at the base, and is possibly coppiced re-growth. The fruiting body of the decay pathogen <i>Phellinus</i> is located in a wound at 5m, western side. This tree presents significant decline. Multiple open wounds/ tear out wounds are evident, as is borer infestation. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
44	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.40 0.30	6 x 7	M	C	S	A	A2/3	MEDIUM	6.0	2.5
<b>Assessment</b> Co-dominant at the base, the northern stem is dead. <b>Proposed works;</b> See Section 7.1.3												
45	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.30	2 x 4	M	C	S	C	A4	LOW	3.6	2.0
<b>Assessment</b> This tree presents excessive decline. Borer infestation is evident. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
46	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.71	6 x 6	M	D	Sym.	A	A2/C4	MEDIUM	8.5	2.8

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents multiple large failure wounds in the lower crown. Decay is evident in the inclusion at 1.4m, western side. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
47	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.24 x 4	5 x 8	M	D	Sym.	A-B	A2	MEDIUM	5.8	2.4
<b>Assessment</b> Multi-stemmed at the base, one of the stems is dead. Minor twiggy decline is evident. The tops of the 2 most easterly stems have snapped out, apparently wind-related. <b>Proposed works;</b> See Section 7.1.4												
48	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	1.1 <sup>BC</sup>	6 x 6	M	D	N	B-C	C4/A3	MEDIUM	13.2	3.4
<b>Assessment</b> Co-dominant at the base, the southern side reveals a basal cavity. Multiple tear out wounds are evident on both stems, as is associated decay. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
49	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	1.0	14 x 16	M	D	Sym.	B	A2/3	HIGH	12.0	3.3
<b>Assessment</b> This tree presents some twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
50	<i>Eucalyptus macarthurii</i> Camden Woollybutt	18	0.69	4 x 4	M	D	Sym.	C	C4/A4	LOW	8.3	2.8
<b>Assessment</b> This tree presents some excessive decline. The fruiting body of the decay pathogen <i>Phellinus</i> is located on the stem at 2m, western side. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
51	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.52	8 x 10	M	D	Sym.	B	A2	MEDIUM	6.3	2.5
<b>Assessment</b> This tree presents some twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
52	<i>Eucalyptus macarthurii</i> Camden Woollybutt	7	0.43 0.45	8 x 8	M	D	S	B	A2	MEDIUM	7.4	2.7

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree, co-dominant at the base, presents some twiggy decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.3												
53	<i>Eucalyptus macarthurii</i> Camden Woollybutt	7	0.49	8 x 9	M	C	N	B	C4	LOW	5.8	2.5
<b>Assessment</b> This tree has previously suffered catastrophic failure of the stem at 4m. The stem is a pipe cavity, and the loading from the growth generated after the failure is generating a crack- failure is imminent. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
54	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	1.0 <sup>BC</sup>	9 x 10	M	C	W	B	C4	MEDIUM	12.0	3.3
<b>Assessment</b> Multi-stemmed at the base, the western stem has a decay column descending into basal flare. The higher northern stem has cavity at 3m, northern side. The lower northern stem is dead, and the associated decay appears to be descending into the root flare. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
55	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.46	7 x 9	M	D	Sym.	A-B	C4	MEDIUM	5.5	2.4
<b>Assessment</b> This tree presents minor twiggy decline. The basal cavity (multiple openings) reveals an ascending pipe cavity. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
56	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.47	6 x 8	M	D	N	B-C	A3	MEDIUM	5.6	2.4
<b>Assessment</b> This tree, co-dominant at the base, presents significant decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
57	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.42	7 x 10	M	S	N	B	C4	MEDIUM/LOW	5.1	2.3
<b>Assessment</b> This tree presents large wounds between 5m-7m, southern side (tension side), decay is evident. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
58	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.39	5 x 8	M	I	N	B	C4	MEDIUM/ LOW	4.7	2.3

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree reveals decay and frass in the open vertical wounds at 0.6m, southern side and 1.2m, eastern side. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
59	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.34	6 x 6	M	D	Sym.	B	A2	MEDIUM/ LOW	4.1	2.1
<b>Assessment</b> This tree has suffered complete stem failure at 7m, the open wound remains, and a cavity is evident. A new apical leader has formed, this presents some twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
60	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.29	2 x 4	M	S	E	C	A3/4	LOW	3.5	1.9
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
61	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.45	7 x 10	M	D	N	B-C	A3/4	MEDIUM/ LOW	5.4	3.4
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
62	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.34	4 x 6	M	I	N	B-C	A4/C4	MEDIUM/ LOW	4.1	2.1
<b>Assessment</b> This tree reveals a pipe cavity, via wounding on the stem at 4m, northern side. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
63	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.90 <sup>BC</sup>	7 x 8	M	D	Sym.	B-C	A3/4	MEDIUM/ LOW	10.8	3.2
<b>Assessment</b> Previously co-dominant at 1.3m, the western stem has been lopped at 1.7m. No occlusion is evident and significant decline is evident. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
64	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.60 0.58	8 x 8	M	D	Sym.	C	A4	LOW	9.9	3.1

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> Co-dominant at the base. Excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
65	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.58	10 x 10	M	D	S	B	A2/3	MEDIUM	6.9	2.6
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.3												
66	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.60	10 x 10	M	D	Sym.	B-C	A4	MEDIUM/ LOW	7.2	2.7
<b>Assessment</b> This tree presents significant decline. A large wound at 6m, western side, reveals extensive borer infestation. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
67	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.44	5 x 6	M	D	E	B-C	A4/C4	LOW	5.3	2.4
<b>Assessment</b> This tree presents excessive decline and delaminating bark. The upper two thirds is dead, and apparent longitudinal stress fractures are evident in the dead stem. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
68	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.58	8 x 9	M	D	Sym.	B	A2 <sup>E</sup>	MEDIUM	6.9	2.6
<b>Assessment</b> This tree presents twiggy decline. An apparent vertical wound located at 2m, northern side, has occluded, however frass presents in the seam, and associated swelling surrounds the area, suggesting the possibility of internal decay. <b>Proposed works;</b> See Section 7.1.4												
69	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.40	5 x 6	M	D	Sym.	B	A2/3	MEDIUM	4.8	2.3
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.4												
70	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.56	7 x 9	M	D	Sym.	B-C	A3	MEDIUM	6.7	2.6



Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
71	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.38	5 x 6	M	I	S	B-C	A3	MEDIUM	4.6	2.2
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
72	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.38	3 x 4	M	D	Sym.	C	A4	MEDIUM/ LOW	4.6	2.2
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
73	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.69	8 x 10	M	D	Sym.	B	A2/3	MEDIUM	8.3	2.8
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.4												
74	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.60	7 x 8	M	D	N	B	A2/3	MEDIUM	7.2	2.6
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.4												
75	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.69 <sup>BC</sup>	7 x 9	M	D	Sym.	C	A4	MEDIUM/ LOW	8.3	2.8
<b>Assessment</b> This tree presents excessive decline. Co-dominant at 1.4m, extensive borer infestation is evident in the southerly stem. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
76	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.42	9 x 10	M	D	Sym.	A-B	A2	HIGH	5.1	2.3
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
77	<i>Eucalyptus macarthurii</i> Camden Woollybutt	17	0.58	10 x 12	M	D	Sym.	B	A2/3 <sup>E</sup>	HIGH	6.9	2.6
<b>Assessment</b> This tree presents twiggy decline. Co-dominant at 7m, an apparent habitat hollow is located at 9m, western side of the southern stem. A long vertical wound between the base and 4m, northern side has occluded. Frass presents in the seam, and associated swelling surrounds the area. Resonance sounding suggests the presence of a basal cavity. <b>Proposed works;</b> See Section 7.1.3												
78	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.41	6 x 7	M	D	Sym.	B	A2/3	MEDIUM	4.9	2.3
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.4												
79	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.54	6 x 8	M	D	N	B	A2/3	MEDIUM	6.5	2.5
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.4												
80	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.49	6 x 9	M	D	N	A-B	C4	MEDIUM	5.8	2.5
<b>Assessment</b> This tree presents twiggy decline. A 1 <sup>st</sup> order branch at 7m, southern side has a cavity just above the branch union. A fruiting body of the fungal pathogen <i>Phellinus</i> is evident in a vertical wound at 5m, southern side. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
81	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.44	7 x 9	M	D	N	B	A2/3	HIGH	5.3	2.4
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
82	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.28	4 x 5	M	C	W	A-B	A2	MEDIUM	3.4	1.9
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
83	<i>Eucalyptus macarthurii</i> Camden Woollybutt	5	0.16 0.16	3 x 5	M	S	E	B-C	A3	LOW	2.7	1.8
<b>Assessment</b> Co-dominant at the base, this tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
84	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.28	5 x 6	M	C	S	A-B	A2	MEDIUM	3.4	1.9
<b>Assessment</b> This tree presents minor twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
85	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.50	7 x 8	M	D	E	B	A2/3	MEDIUM	6.0	2.5
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.4												
86	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.48	5 x 8	M	C	N	B	A2/3	MEDIUM	5.7	2.4
<b>Assessment</b> This tree presents significant decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.4												
87	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.51	7 x 11	M	C	E	A-B	A2	MEDIUM	6.2	2.5
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
88	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.65	6 x 6	M	C	S	C	A4	MEDIUM/ LOW	7.8	2.7
<b>Assessment</b> This tree presents a vertical wound between the base and 6m, western side. This is occluding however borer holes are evident. A small cavity at 1m, eastern side reveals frass. Excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
89	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.69	5 x 7	M	C	E	B-C	A4	MEDIUM/ LOW	8.3	2.8
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
90	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.68 0.56	7 x 9	M	C	Sym.	B-C	A4	MEDIUM/ LOW	10.6	3.2
<b>Assessment</b> This tree presents excessive decline. Co-dominant at the base. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
91	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.50	7 x 14	M	S	S	B-C	A4	MEDIUM/ LOW	6.0	2.5
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
92	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.70 <sup>B</sup>	6 x 9	M	D	N	B	A3	MEDIUM	8.4	2.8
<b>Assessment</b> Co-dominant at 3m, this tree presents significant decline. An area of apparent wounding at 3m, northern side is now occluded, however, exhibits frass. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
93	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.34	4 x 9	M	D	S	B-C	A3/4	MEDIUM/ LOW	4.1	2.1
<b>Assessment</b> This tree presents significant decline. A basal wound (north side) exhibits swelling. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
94	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.49	7 x 8	M	D	W	B-C	A3/4	MEDIUM/ LOW	5.8	2.5
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
95	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.73	11 x 8	M	D	Sym.	B	A2/3	MEDIUM	8.7	2.9
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
96	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.57	8 x 8	M	D	Sym.	B	A2/3	MEDIUM	6.8	2.6
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
97	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.57	7 x 8	M	D	Sym.	A-B	A2	HIGH	6.8	2.6
<b>Assessment</b> This tree presents minor twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
98	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.29	5 x 7	M	D	S	B	A3	LOW	3.5	1.9
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
99	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.28	5 x 6	M	D	N	B-C	A3/4	LOW	3.4	1.9
<b>Assessment</b> This tree presents significant decline and partial crown density. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
100	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.26	4 x 5	M	D	Sym.	B-C	A3/4	LOW	3.2	1.8
<b>Assessment</b> This tree presents significant decline and partial crown density. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
101	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.19	2 x 3	M	I	Sym.	B-C	A2	LOW	2.3	1.6



Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree has suffered a stem failure at 4.5m. A vertical wound at 2.4, southern side exhibits frass and swelling. <b>Proposed works;</b> See Section 7.1.4												
102	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.29	4 x 4	M	D	Sym.	A-B	A2	MEDIUM	3.5	1.9
<b>Assessment</b> This tree has suffered a stem failure at 8m, the open wound remains. Presents minor twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
103	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.50	6 x 10	M	D	Sym.	A-B	A2	MEDIUM	6.0	2.5
<b>Assessment</b> Co-dominant at 4m, the eastern stem has failed at 6m, a large open wound remains. <b>Proposed works;</b> See Section 7.1.4												
104	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.29	5 x 8	M	C	N	C	A3	LOW	3.5	1.9
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
105	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.30	5 x 5	M	D	E	A-B	A2	MEDIUM	3.6	2.0
<b>Assessment</b> This tree presents minor twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
106	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.41	4 x 5	M	D	Sym.	B-C	A3	MEDIUM	4.9	2.3
<b>Assessment</b> This tree presents excessive decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
107	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.28	3 x 4	M	I	Sym.	B-C	A3	MEDIUM	3.4	1.9
<b>Assessment</b> This tree presents excessive decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
108	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.19	3 x 4	M	D	N	B	A2	MEDIUM	2.3	1.6
<b>Assessment</b> An open vertical wound at 1.6m, western side is occluding. Some twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
109	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.67	7 x 10	M	D	Sym.	B-C	A2/3	HIGH	8.1	2.8
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
110	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.28	5 x 5	M	D	Sym.	A-B	A2	MEDIUM	3.4	1.9
<b>Assessment</b> This tree presents very minor twiggy decline in the upper crown. <b>Proposed works;</b> See Section 7.1.4												
111	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.56	8 x 9	M	D	Sym.	B	A2	HIGH	6.7	2.6
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
112	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.61	4 x 6	M	D	E	C	A3/C4	MEDIUM	7.3	2.7
<b>Assessment</b> This tree presents excessive decline. A large basal wound, western side reveals cavity/decay. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
113	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.15	4 x 7	M	D	E	B-C	A3/C4	MEDIUM	2.0	1.5
<b>Assessment</b> A vertical wound at 1m, western side reveals decay/ cavity. Borer holes are evident in the stem, as is significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.4												
114	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.76	9 x 10	M	D	Sym.	B	A2/3	HIGH	9.2	2.9

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.4												
115	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.55	8 x 10	M	D	Sym.	B	A2	HIGH	6.6	2.6
<b>Assessment</b> This tree presents twiggy decline. A long vertical wound is located between 8m-11m, northern side. <b>Proposed works;</b> See Section 7.1.4												
116	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.55	5 x 7	M	I	N	B	A2	MEDIUM	6.6	2.6
<b>Assessment</b> This tree presents swelling of the stem at 2m. An area of wounding at 2m, southern side is occluded. <b>Proposed works;</b> See Section 7.1.4												
117	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.30	5 x 6	M	C	N	A-B	A2	MEDIUM	3.6	2.0
<b>Assessment</b> This tree presents partial crown density and some epicormic growths. <b>Proposed works;</b> See Section 7.1.1												
118	<i>Eucalyptus cinerea</i> Argyle Apple	8	0.37	6 x 7	M	C	E	A	B1	MEDIUM	4.4	2.2
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.1												
119	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.20	4 x 5	M	C	N	A-B	A2	MEDIUM	2.4	1.7
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.1												
120	<i>Eucalyptus cinerea</i> Argyle Apple	7	0.22	4 x 5	M	C	E	A-B	A2	MEDIUM	2.6	1.7
<b>Assessment</b> This tree presents some twiggy decline. Co-dominant at 2.7m. <b>Proposed works;</b> See Section 7.1.1												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
121	<i>Eucalyptus macarthurii</i> Camden Woollybutt	7	0.15	3 x 4	Y	I	S	A	A1	MEDIUM	2.0	1.5
<b>Assessment</b> This juvenile tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.1												
122	<i>Eucalyptus radiata</i> Narrow Leaved Peppermint	6	0.31	5 x 6	M	C	W	A	B1	MEDIUM	3.7	2.1
<b>Assessment</b> This tree presents the habit typical of species, however some epicormic growths are present. <b>Proposed works;</b> See Section 7.1.1												
123	<i>Eucalyptus cinerea</i> Argyle Apple	9	0.34	5 x 7	M	C	E	A-B	A2	MEDIUM	4.1	2.1
<b>Assessment</b> This tree presents the habit typical of species, however the upper crown exhibits partial density. <b>Proposed works;</b> See Section 7.1.1												
124	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.21	4 x 5	M	D	Sym.	A	A1	MEDIUM	2.5	1.7
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.1												
125	<i>Eucalyptus pauciflora</i> <i>subsp. pauciflora</i> White Sally	8	0.18	3 x 4	M	D	W	B	A2/3	MEDIUM	2.2	1.6
<b>Assessment</b> This tree presents partial crown density and epicormic growths. <b>Proposed works;</b> See Section 7.1.1												
126	<i>Eucalyptus macarthurii</i> Camden Woollybutt	7	0.29 0.15	7 x 7	M	C	W	A	B1	MEDIUM	3.9	2.1
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.1												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
127	<i>Acacia</i> spp. <sup>A</sup> Wattle	6	0.48 <sup>B</sup>	8 x 8	O	C	W	C	A4	LOW	5.7	2.4
<b>Assessment</b> This tree is senescing, it offered no flowers or seed pods to aid in the confirmation of the identification within the species. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
128	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.24	5 x 7	M	D	N	A	A1	MEDIUM	2.8	1.8
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.1												
129	<i>Eucalyptus punctata</i> Grey Gum	8	0.22	7 x 8	M	D	W	A	B1	MEDIUM	2.6	1.7
<b>Assessment</b> This tree presents the habit typical of species. A dead neighbouring <i>Acacia</i> has failed and is lodged in the crown. <b>Proposed works;</b> See Section 7.1.1												
130	<i>Eucalyptus radiata</i> Narrow Leaved Peppermint	13	1.10 <sup>BC</sup>	13 x 15	M	C	Sym.	A	B1	HIGH	13.2	3.4
<b>Assessment</b> Co-dominant at 1.1m, the southern stem presents a large, open wound from the failure of a co-dominant union. <b>Proposed works;</b> See Section 7.1.3												
131	<i>Eucalyptus pauciflora</i> subsp. <i>Pauciflora</i> <sup>A</sup> White Sally	7	0.13 <sup>C</sup>	1 x 1	Y	S	W	C	A3/4	LOW	2.0	1.5
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2												
132	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.20 <sup>C</sup>	3 x 5	Y	S	W	A	A2	LOW	2.4	1.7
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.3												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
133	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.45 <sup>C</sup>	6 x 10	M	C	Sym.	A-B	A2	MEDIUM	5.4	2.4
<b>Assessment</b> This tree presents the habit typical of species; however, the upper crown exhibits partial density. <b>Proposed works;</b> See Section 7.1.3												
134	<i>Eucalyptus macarthurii</i> <sup>A</sup> Camden Woollybutt	12	0.19 <sup>C</sup>	2 x 2	Y	C	Sym.	A	B1	MEDIUM	2.3	1.6
<b>Assessment</b> This tree presents the habit typical of species. No fruiting bodies were present to aid in the identification. <b>Proposed works;</b> See Section 7.1.3												
135	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.95 <sup>C</sup>	12 x 13	M	D	N	A-B	A2	HIGH	11.4	3.3
<b>Assessment</b> This large and significant tree presents minor twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
136	<i>Acer negundo</i> Box Elder	8	0.71 <sup>CB</sup>	10 x 10	M	D	Sym.	C	A3/4	LOW	8.5	2.8
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
137	<i>Acer negundo</i> Box Elder	9	0.40 <sup>B</sup>	9 x 9	M	D	Sym.	C	A3	LOW	4.8	2.3
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
138	<i>Viburnum spp.</i> A Viburnum	7	0.42 <sup>B</sup>	6 x 7	M	D	Sym.	B	A2	LOW	5.1	2.3
<b>Assessment</b> This tree presents some twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
139	<i>Cupressus glabra</i> Arizona Cypress	13	0.85 <sup>B</sup>	10 x 10	M	C	Sym.	A	A1	HIGH	10.2	3.1

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This linear planting also contains 2 specimens of Bhutan Cypress ( <i>Cupressus torulosa</i> ). All are typical of the species. <b>Proposed works;</b> See Section 7.1.3												
140	<i>Cupressus spp.</i> <sup>A</sup> Cypress	12	0.47	7 x 8	M	S	N	A	A2	MEDIUM	5.6	2.4
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.3												
141	<i>Cupressus spp.</i> <sup>A</sup> Cypress	14	0.87 <sup>B</sup>	10 x 12	M	C	Sym.	A	B1	HIGH	10.4	3.2
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.3												
142	<i>Cupressus spp.</i> <sup>A</sup> Cypress	14	0.67	11 x 12	M	C	S	A	A1	HIGH	8.1	2.8
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.3												
143	<i>Cupressus macrocarpa</i> Monterey Cypress	12	0.70 <sup>BC</sup>	10 x 10	M	C	Sym.	A	A2	MEDIUM	8.4	2.8
<b>Assessment</b> This is a linear planting of approximately 12 specimens. The thick lower vegetation has hindered movement and limited the assessment. The tree tag bearing the number is placed on the fence adjacent, northern side. <b>Proposed works;</b> See Section 7.1.3												
144	<i>Liquidambar styraciflua</i> Liquidambar	7 (Average)	0.15 (Average)	4 x 5 (Average)	Y	C	Sym.	B	A2/3	LOW/MEDIUM	2.0	1.5
<b>Assessment</b> This is a linear planting of 9 specimens. All present partial crown density. <b>Proposed works;</b> See Section 7.1.1												
145	<i>Photinia robusta</i> Photinia	5	0.30 <sup>BC</sup>	5 x 6	M	C	Sym.	A	A2	LOW	3.6	2.0



Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This is a linear planting of 17 specimens. All are multi-stemmed at the base. The tree tag bearing the number is installed at the southern end. <b>Proposed works;</b> See Section 7.1.3												
146	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.55	6 x 10	M	D	N	B	C4	MEDIUM	6.6	2.6
<b>Assessment</b> Co-dominant at 4m, the union presents a cavity/ decay and frass in the lower portion of the union. Significant crown decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
147	<i>Eucalyptus macarthurii</i> Camden Woollybutt	19	0.85	9 x 11	M	D	Sym.	A-B	A2	HIGH	10.2	3.1
<b>Assessment</b> This tree presents some twiggy decline. The lowest 1 <sup>st</sup> order branch (1.5m, south side) has died, and an open, longitudinal wound exhibits decay- this decay appears to enter the stem at 1.5m. <b>Proposed works;</b> See Section 7.1.1												
148	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.65	5 x 14	M	-	N	B	C4	LOW	7.8	2.7
<b>Assessment</b> This tree has mechanical failure of the root plate, southern side, and therefore fallen to the north. The northern root mass remains (partially) connected, and vitality remains. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
149	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.70 <sup>C</sup>	5 x 5	M	D	E	A	C4	LOW	8.4	2.8
<b>Assessment</b> This tree has suffered a chainsaw 'back cut' to the base (that is, has not felled, simply allowed to fracture out), instigating a complete failure of the stem- the huge open wound remains. All growth is epicormic. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
150	<i>Cupressus macrocarpa</i> Monterey Cypress	11	0.40 <sup>BC</sup>	8 x 8	M	C	Sym.	B-C	A3/4	LOW	4.8	2.3
<b>Assessment</b> This is a linear planting of approximately 20 specimens, all exhibit stress, and poor condition, several are dead. The tree tag bearing the number is installed at the southern end. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
151	<i>Cupressus spp.</i> <sup>A</sup> Cypress	14	0.45 <sup>BC</sup>	8 x 8	M	C	Sym.	B	A2/3	MEDIUM	5.4	2.4
<b>Assessment</b> This is a linear planting of mixed Cypress ( <i>Cupressus</i> ) <b>Proposed works;</b> See Section 7.1.4												
152	<i>Fraxinus raywoodii</i> Claret Ash	11	0.40 0.30	10 x 12	M	C	E	B-C	A3	LOW	6.0	2.5
<b>Assessment</b> This tree presents significant decline in the upper crown. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
153	<i>Cupressus sempervirens</i> Mediterranean Cypress	12	0.32	2 x 2	M	D	Sym.	A	A2	MEDIUM	3.8	2.1
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.3												
154	<i>Ulmus glabra</i> Golden Elm	9	0.20	4 x 4	M	C	Sym.	B-C	A3	LOW	3.4	1.9
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
155	<i>Fraxinus spp.</i> <sup>A</sup> Ash	10	0.35 <sup>C</sup>	2 x 2	M	I	W	C	A3/4	LOW	4.2	2.2
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
156	<i>Fraxinus spp.</i> <sup>A</sup> Ash	6	0.16 <sup>B</sup>	2 x 4	M	S	W	C	A3/4	LOW	4.2	2.2
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
157	<i>Brachychiton populneus</i> Kurrajong	9	0.35 0.35	6 x 7	M	D	E	A	B1	HIGH	5.8	2.4
<b>Assessment</b> Co-dominant at the base, this tree is experiencing minor conflict with surrounding trees. <b>Proposed works;</b> See Section 7.1.3												
158	<i>Prunus spp.</i> <sup>A</sup> Apricot	6	0.33 <sup>BC</sup>	4 x 5	O/M	S	N	B	A2/3	LOW	3.9	2.1
<b>Assessment</b> This tree presents significant decline in the lower crown. <b>Proposed works;</b> See Section 7.1.3												
159	<i>Ginkgo biloba</i> Ginkgo	12	0.32	6 x 6	M	D	Sym.	C	A3	LOW	3.8	2.1
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
160	<i>Robinia pseudoacacia</i> Black Locust	11	0.40 <sup>B</sup>	8 x 8	M	D	Sym.	B-C	A3	LOW	4.8	2.3
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
161	<i>Prunus nigra</i> Ornamental Plum	7	0.50 <sup>BC</sup>	7 x 8	M	S	N	C	A3	LOW	6.0	2.5
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
162	<i>Malus domestica</i> Apple	6	0.21 <sup>B</sup>	6 x 6	M	C	N	A-B	A2	LOW	2.5	1.7
<b>Assessment</b> This tree presents minor decline in the lower crown. <b>Proposed works;</b> See Section 7.1.3												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
163	<i>Ulmus parvifolia</i> Chinese Elm	13	0.76 <sup>B</sup>	12 x 15	M	D	E	C	A3/4	LOW	9.2	2.9
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
164	<i>Picea spp.</i> <sup>A</sup> Blue Spruce	14	0.58	9 x 9	M	D	Sym.	C	A4	LOW	6.9	2.6
<b>Assessment</b> This tree presents excessive decline. Approximately 98% dead. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
165	<i>Nyssa sylvatica</i> Tupelo	14	0.41 <sup>B</sup>	7 x 8	M	D	Sym.	A-B	B1	MEDIUM	4.9	2.3
<b>Assessment</b> This tree presents minor twiggy decline in the lower crown. <b>Proposed works;</b> See Section 7.1.3												
166	<i>Fraxinus raywoodii</i> Claret Ash	14	0.52	8 x 12	M	D	Sym.	A-B	B1	MEDIUM	6.3	2.5
<b>Assessment</b> This tree presents minor twiggy decline. <b>Proposed works;</b> See Section 7.1.3												
167	<i>Cupressus spp.</i> <sup>A</sup> Cypress	16	0.50 <sup>BC</sup>	5 x 8	M	C	Sym.	A	A2	MEDIUM	6.0	2.5
<b>Assessment</b> This is a linear planting of 27 specimens. The tag bearing the number is installed at the northern end. <b>Proposed works;</b> See Section 7.1.4												
168	<i>Quercus palustris</i> Pin Oak	14	0.42	11 x 14	M	C	N	B-C	A3	MEDIUM	5.1	2.3
<b>Assessment</b> This tree presents partial crown density and epicormic growths. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
169	<i>Fraxinus raywoodii</i> Claret Ash	11	0.47 <sup>BC</sup>	11 x 12	M	S	N	C	A3	LOW	5.6	2.4

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree is a poor specimen, excessive decline and partial crown density. <b>Proposed works;</b> See Section 7.1.2 and 7.1.3												
170	<i>Schinus molle</i> Peppercorn	5	0.10 0.11	5 x 8	M	S	E	A	A2	LOW	2.0	1.5
<b>Assessment</b> This tree presents the habit typical of species. <b>Proposed works;</b> See Section 7.1.3												
171	<i>Schinus molle</i> Peppercorn	8	0.30 <sup>CB</sup>	8 x 8	M	C	Sym.	A	A2	LOW	3.6	2.0
<b>Assessment</b> This is 2 trees side by side. The tag bearing the number is installed at the western tree. <b>Proposed works;</b> See Section 7.1.3												
172	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	1.2 <sup>BC</sup>	11 x 12	M	D	N	B	A2/3 <sup>E</sup>	HIGH	14.4	3.6
<b>Assessment</b> Co-dominant at 1m, the eastern side has partially failed and is contacting the ground. A longitudinal wound reveals decay. Twiggy decline is evident. <b>Proposed works;</b> See Section 7.1.1												
173	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.46	7 x 9	M	D	N	A-B	A2	HIGH	5.5	2.4
<b>Assessment</b> This tree presents twiggy decline. A vertical wound at 3m, north eastern side has occluded. <b>Proposed works;</b> See Section 7.1.1												
174	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	1.20 <sup>B</sup>	11 x 11	M	D	N	A-B	A2	HIGH	14.4	3.4
<b>Assessment</b> This large and significant tree presents the habit typical of species, however exhibits some twiggy decline. A juvenile <i>Eucalypt</i> is located within the SRZ, southern side. <b>Proposed works;</b> See Section 7.1.1												
175	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	1.00	11 x 11	M	D	Sym.	A-B	A2	HIGH	12.0	3.3

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents minor twiggy decline. The lowest 1 <sup>st</sup> order branch, eastern side has failed, decay is evident, as is termite activity. <b>Proposed works;</b> See Section 7.1.1												
176	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.79	12 x 12	M	D	Sym.	A-B	C4	HIGH	9.5	3.0
<b>Assessment</b> Co-dominant at 4m, some twiggy decline is evident. A basal wound, south side, reveals a cavity. A vertical wound between 2m – 3m, southern side reveals a pipe cavity. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
177	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	1.10	10 x 10	M	D	Sym.	A-B	A2/C4	HIGH	13.2	3.4
<b>Assessment</b> This tree presents twiggy decline. Co-dominant at 2.2m, the eastern stem has an open wound revealing a pipe cavity descending into the main stem. The eastern stem presents much decline and borer infestation. The lowest 1 <sup>st</sup> order branch, western stem presents a longitudinal wound with borer infestation. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
178	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.10	6 x 8	M	D	Sym.	B-C	A3	MEDIUM	2.0	1.5
<b>Assessment</b> This tree presents excessive decline. A vertical wound at 2m, eastern side exhibits associated swelling. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
179	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.70	6 x 10	M	D	Sym.	B-C	A3	MEDIUM	8.4	2.8
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
180	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.26	4 x 5	M	D	Sym.	C	C4	MEDIUM	3.2	1.8
<b>Assessment</b> This tree presents excessive decline. A wound at 1.4m, southeastern side reveals a pipe cavity. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
181	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.39	2 x 5	M	D	N	B-C	A3	MEDIUM	4.7	2.3
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
182	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.45	6 x 7	M	D	N	B	A2/3	HIGH	5.4	2.4
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.1												
183	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.56	9 x 10	M	D	Sym.	B	C4	MEDIUM	6.7	2.6
<b>Assessment</b> This tree presents significant decline. A wound between 1.2m and 8m, eastern side reveals a pipe cavity. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
184	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.54	6 x 6	M	C	E	B	A2	HIGH	6.5	2.5
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
185	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.89	10 x 12	M	C	N	B	A2	HIGH	10.7	3.2
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
186	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.93	11 x 12	M	D	Sym.	B	A2	HIGH	11.2	3.2
<b>Assessment</b> This tree presents significant twiggy decline. An open wound from apparent branch failure at 2.6m, northern side, exhibits apparent decay. <b>Proposed works;</b> See Section 7.1.1												
187	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.76	9 x 9	M	D	Sym.	B-C	A3	MEDIUM	9.2	2.9



Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents excessive decline. A vertical wound at 1m, northern side has almost occluded. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
188	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.41	7 x 7	M	D	N	B	A2	MEDIUM	4.9	2.3
<b>Assessment</b> This tree presents significant twiggy decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.1												
189	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.41	4 x 5	M	D	S	B-C	A3	MEDIUM	4.9	2.3
<b>Assessment</b> This tree presents excessive decline. Co-dominant at 2m, the northern stem is dead. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
190	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.69 0.62	7 x 9	M	D	N	B-C	A3/C4	MEDIUM	11.2	3.2
<b>Assessment</b> Co-dominant at the base, the eastern stem has a vertical wound, southern side, revealing a pipe cavity. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
191	<i>Eucalyptus macarthurii</i> Camden Woollybutt	6	0.70 <sup>BC</sup>	4 x 6	M	I	W	C	A3/C4	LOW	8.4	2.8
<b>Assessment</b> This tree presents excessive decline. Decay and borer infestation is evident. The only vitality evident is within the lowest 1 <sup>st</sup> order branch, western side. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
192	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.50	6 x 9	M	C	W	B	A2/3	MEDIUM	6.0	2.5
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1												
193	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.77	5 x 8	M	D	Sym.	B-C	A3	MEDIUM	9.3	2.9

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
194	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	1.10 <sup>B</sup>	6 x 7	M	D	N	B	C4	LOW	13.2	3.4
<b>Assessment</b> This tree has been lopped at 1.8m. The resultant mature stump sprout has a significant northern bias, and is generating significant loading on the stump. A fracture is evident- failure is imminent. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
195	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.92	10 x 10	M	D	Sym.	B	A2	HIGH	11.1	3.2
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
196	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.69	8 x 9	M	D	Sym.	C	A3	MEDIUM	8.3	2.8
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
197	<i>Eucalyptus macarthurii</i> Camden Woollybutt	12	0.64 <sup>B</sup>	5 x 6	M	D	W	C	A3/C4	MEDIUM	7.7	2.7
<b>Assessment</b> Co-dominant at 1.3m, the western stem has a long vertical wound at 3.5m, revealing a pipe cavity. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
198	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.66	8 x 9	M	D	S	B	A2	HIGH	7.9	2.8
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
199	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.45 0.29	9 x 10	M	C	Sym.	B	A2/C4	HIGH	6.5	2.5

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents significant twiggy decline. Comprised of 2 stems, the main stem has a vertical wound at 8m, eastern side revealing a pipe cavity. The northern (smaller) stem presents a wound and associated swelling between 2m-4m. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
200	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.74	8 x 8	M	C	E	B-C	A2/3	MEDIUM	8.8	2.9
<b>Assessment</b> This tree presents significant decline. <b>Proposed works;</b> See Section 7.1.1												
201	<i>Eucalyptus macarthurii</i> Camden Woollybutt	11	0.57	4 x 5	M	C	N	C	A3/4	MEDIUM	6.8	2.6
<b>Assessment</b> This tree presents excessive decline. A vertical wound between 2m-4m, northern side has associated swelling. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
202	<i>Eucalyptus tereticornis</i> Forest Red Gum	19	0.87	10 x 11	M	D	N	B	A2/3	HIGH	10.4	3.2
<b>Assessment</b> This tree presents significant decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.1												
203	<i>Eucalyptus macarthurii</i> Camden Woollybutt	17	0.76	10 x 11	M	D	Sym.	B	A2	HIGH	9.2	2.9
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
204	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.41	4 x 6	M	C	N	C	A3	MEDIUM	4.9	2.3
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
205	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.40	4 x 4	M	C	S	C	A3	MEDIUM	4.8	2.3

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
206	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.46	1 x 2	M	I	N	C	A4	LOW	5.5	2.4
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
207	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.56	4 x 6	M	D	Sym.	B-C	A3/C4	MEDIUM	6.7	2.6
<b>Assessment</b> This tree presents excessive decline. A vertical wound at 8m, southern side has associated swelling. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
208	<i>Eucalyptus macarthurii</i> Camden Woollybutt	8	0.50 <sup>B</sup>	1 x 1	M	I	S	C	A4/C4	LOW	6.0	2.5
<b>Assessment</b> This tree presents excessive decline. Basal wounding reveals a pipe cavity. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
209	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.56	6 x 10	M	D	Sym.	B	A2/3	MEDIUM	6.7	2.6
<b>Assessment</b> This tree presents significant twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
210	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.61	6 x 6	M	D	E	C	A3/C4	MEDIUM	7.3	1.7
<b>Assessment</b> A basal cavity, western side reveals a pipe cavity. Excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
211	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.76 <sup>B</sup>	9 x 9	M	D	N	B-C	A3/C4	MEDIUM	9.2	2.9
<b>Assessment</b> This tree presents excessive decline. A vertical wound on the stem at 5m, southern side, exhibits significant associated swelling. A vertical wound at 2.6m, eastern side presents much frass below the wound												

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
212	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.74	9 x 9	M	D	Sym.	B	A2/C4	HIGH	8.8	2.9
<b>Assessment</b> A vertical wound at 6m western side reveals a pipe cavity. Significant decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
213	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.76	8 x 10	M	D	S	B	A2/3	HIGH	9.2	2.9
<b>Assessment</b> This tree presents significant decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.1												
214	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.74	7 x 9	M	D	N	B	A2/C4	HIGH	8.8	2.9
<b>Assessment</b> This tree presents significant decline and epicormic growths. A basal cavity, northern side, reveals decay. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
215	<i>Eucalyptus macarthurii</i> Camden Woollybutt	10	0.54	6 x 10	M	S	S	B-C	A3	MEDIUM	6.5	2.5
<b>Assessment</b> This tree presents excessive decline. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
216	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.57	8 x 9	M	D	S	B	A2/3	MEDIUM	6.8	2.6
<b>Assessment</b> This tree presents twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
217	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.53	4 x 4	M	D	N	B-C	A3/C4	MEDIUM	6.4	2.5
<b>Assessment</b> This tree presents significant decline. A basal wound, eastern side reveals decay. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												



Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
218	<i>Eucalyptus macarthurii</i> Camden Woollybutt	15	0.78	7 x 8	M	I	N	B-C	A2/3	MEDIUM	9.4	2.9
<b>Assessment</b> This tree presents twiggy decline. A large open wounds remains from branch failure at 2m, northern side. <b>Proposed works;</b> See Section 7.1.1												
219	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.75	1 x 5	M	D	Sym.	C	A4	LOW	9.0	2.9
<b>Assessment</b> This tree presents excessive decline. Approximately 98% dead. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												
220	<i>Eucalyptus macarthurii</i> Camden Woollybutt	13	0.42	5 x 10	M	I	N	B-C	A2/3	MEDIUM	5.1	2.3
<b>Assessment</b> This tree presents twiggy decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.1												
221	<i>Eucalyptus macarthurii</i> Camden Woollybutt	16	0.80	11 x 11	M	D	W	B	A2	HIGH	9.6	3.1
<b>Assessment</b> This tree presents some twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
222	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.81	10 x 11	M	D	N	B	A2	HIGH	9.7	3.1
<b>Assessment</b> This tree presents some twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
223	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.49 0.40	7 x 9	M	I	S	B	A2	HIGH	7.6	2.7
<b>Assessment</b> This tree presents some twiggy decline. <b>Proposed works;</b> See Section 7.1.1												
224	<i>Eucalyptus macarthurii</i> Camden Woollybutt	14	0.69 <sup>B</sup>	11 x 14	M	D	E	B-C	A2/3	MEDIUM	8.3	2.8

Tree No.	Botanical Name Common Name	Height (m)	DBH (m)	Crown Spread (m)	Age	Crown Class	Crown Aspect	Vitality	SULE Rating	STARS Rating	TPZ	SRZ
<b>Assessment</b> This tree presents some twiggy decline and epicormic growths. <b>Proposed works;</b> See Section 7.1.1												
225	<i>Eucalyptus spp.</i> Various Eucalypts	10	0.30 (Average)	6 x 6 (Average)	M	C	Sym.	B (Average)	A2/3 (Average)	MEDIUM	3.6	2.0
<b>Assessment</b> This is a linear planting a 27 <i>Eucalypts</i> . The linear planting continues to the west, however these trees are outside the scope of works. <b>Proposed works;</b> See Section 7.1.1												
226	<i>Cupressus leylandii</i> Leyland Cypress	7	0.24 <sup>BC</sup> (Average)	4 x 4 (Average)	M	C	Sym.	B (Average)	A2/3 (Average)	MEDIUM	2.8	1.8
<b>Assessment</b> This is a linear planting a 53 <i>Cupressus</i> . Many exhibit significant decline. <b>Proposed works;</b> See Section 7.1.1												
227	<i>Eucalyptus macarthurii</i> Camden Woollybutt	9	0.38	4 x 6	M	D	W	B-C	A2/C4	MEDIUM	4.6	2.2
<b>Assessment</b> Previously co-dominant at the base, the eastern stem has failed, and the remainder is completely dead. The wound remains open. The western stem exhibits borer infestation. <b>Proposed works;</b> See Section 7.1.1 and 7.1.2												

- A. Incomplete identification of species due to insufficiently available plant material
- B. Diameter taken below 1.4m due to low stem bifurcation
- C. Estimate due to the overgrown area and/or limited access
- D. Deciduous species, void of foliage at the time of assessment
- E. Level 3 assessment required to determine the accurate rating

## 7.0 Site Assessment

The area of assessment comprises a rural lot (paddocks), being cattle grazing. The lot has an undulating gradient, predominately slight-medium with a westerly aspect, as the entirety of the lot drains to the riparian zone located on the western periphery, adjacent to the area of assessment. Vehicular access is via the gravel road (driveway) entering from the northern boundary. A dam is located in the southeast corner. A swale, apparently constructed to reduce surface water velocity, as opposed to directing water flow, is located centrally, however, with a bias toward the northern boundary.

An area in the southwestern corner that was the location of the original dwelling has numerous exotic plantings. This area also contains exempt species, dead trees, and many specimens less than 6m in height. Various site structures (sheds, old septic tank, etc.) are located within and around this southwestern corner. Secondary vehicular access is also located in this area.

The majority of the site trees are mature *Eucalypts*, these appear to be predominately remnant/ random germinations, and very many of these present some degree of decline, some severe, and also many trees exhibit hollows/ cavities, indicating significance for habitat value. Deliberate linear plantings are located throughout the property, particularly the northern and western boundary of the area of assessment. The western periphery, dam/ riparian zone, has small, exotic trees (linear planting) believed to be outside the scope of works, and therefore not included.

The trees labeled as A, that have been included on the survey drawing (Plans No. 3 and 4), however, excluded from this report because of the failure to conform to the description of a prescribed tree based on the Wingecarribee Shire Councils Development Control Plan.

Tree A: trees that occur on the lot proposed for development and are exempt species.

## 7.1 Proposed development

The proposed development consists of the demolition of existing site structures and construction of a proposed brick factory, drive access, and drainage infrastructure. No stormwater drawings have been included as part of the document set.

The calculations included in the following discussion have not considered;

- subsurface utilities that have not been included in the design,
- Work methods related to subsurface utilities, for example, concrete encasing or replacement of existing lines

- or work methods related to construction (stockpiling, site sheds, scaffolding) unless otherwise specified.

These may also increase the encroachment and tree impact and, therefore, the opportunity for tree retention.

The drawings provided for this application have not contained an accurate tree location, as discussed in Section 4.5.1. Based on this premise, the following impacts are an estimate only and will not provide the actual extent of impact.

This report discusses the impact of the proposed design on the trees. Two hundred and twenty-seven (227) trees have been listed within this report based upon the vicinity of the proposed works. This has included any tree where any part of the zones of protection; Tree Protection Zone (TPZ), and Structural Root Zone (SRZ), encroach into the area proposed for work. Recommendations based on the tree significance and condition, together with the impact on these trees regarding the proposed development (based on the documents contained in Section 4.4) and mitigation where available follow.

#### **7.1.1 Trees and zones of protection (TPZ/SRZ) outside of the proposed design**

Trees No. 22-31, 42, 43, 49-51, 63, 117-129, 144, 146-150 and 172-227

None of the proposed works conflict with the location of these trees or respective zones of protection. These trees can be retained without impact by the proposed design.

#### **7.1.2 Trees providing a limited useful life expectancy**

Trees No. 1-8, 14-16, 19, 21, 27, 30, 33, 34, 36-43, 45, 46, 48, 50, 53-58, 60-64, 66, 67, 70-72, 74, 75, 80, 83, 88-94, 98-100, 104, 106, 107, 112, 113, 127, 131, 136, 137, 146, 148-150, 152, 154-156, 159-161, 163, 164, 168, 169, 176-181, 183, 187, 189-191, 193, 194, 196, 197, 199, 201, 204-208, 210-212, 214, 215, 217-219, 221 and 227

These trees provide a habit and rating and could be removed due to the poor condition and limited useful life expectancy. However numerous mature native trees within this Section present hollows/cavities and as such retain high significance as habitat trees.

#### **7.1.3 Trees directly conflicting with the design**

Trees No. 5-19, 44, 45, 52-55, 65, 77, 130-143, 145, 152-166 and 168-171

These trees are located in the footprint of the proposed design and would require removal based on this premise alone. The conflict is summarised as follows;

Trees No. 5-19; within the footprint of the proposed storage hardstand.

Trees No. 44, 45; within the footprint of the proposed batter.

Trees No. 52-55; within the proposed development footprint, adjacent to the production building and the water tanks.

Tree No. 65; within the footprint of the proposed production building.

Trees No. 77, 130-135, 139-143, 145, 166 and 168-171; within the footprint of the proposed batter/ drainage corridor.

Trees No. 136-138; inside the footprint of the proposed new storm water basin.

#### **7.1.4 Trees subject to a potential encroachment**

Trees No. 1-4, 20, 21, 32-41, 46-48, 56-62, 64, 66-76, 78-116, 151 and 167

These trees are not directly located in the footprint of the proposed design, however, are subject to an encroachment. That is, the proportion of encroachment (being an intrusion into the root zone) provided by design could adversely impact on the tree. The proportion of this encroachment, therefore, impact on the tree has been unable to be determined because the tree locations have not been included on the drawings, see Section 4.5.1.

### **7.2 Sub-surface utilities**

No drawings have been provided for the proposed route of sub-surface utilities. Any trenching, other than what has been allowed for should be avoided within the area of the TPZ. Any proposed route shall be re-routed outside of the TPZ. Under boring may be required if a limitation for the route of a service is restricted to an area that falls within the TPZ. Any excavation in the area of a TPZ must be authorised and conditioned by the project arborist.

### **7.3 Protection measures**

Tree protection measures will be required during the demolition and construction stage. However, the design of these will be pending the work methodology and final design. The project arborist shall be contracted after the completion/confirmation of design work for the instruction of the protection measures implementation, that is the Arboricultural Method Statement. Examples of the protection measures are contained in Appendix B.

#### **7.3.1 Conditions for compliance**

The following conditions are required before any works proceed on site.

Site induction; All workers related to the construction process and before entering the site must be briefed about the requirements/conditions outlined in this report relative to the zone of protection, measures, and specifications before the initiation of work. This is required as part of the site induction process.



Project Arborist; A project arborist who conforms to the requirements of the AS 4970 is required to be nominated immediately after a *Notice of Determination* is issued, and they are to be provided with all related site documents.

#### 7.4 Compliance Documentation

The following stages will require assessment and documentation (report, letter, certification) by the project arborist or person responsible for the specific work type, and the related documentation is to be issued to the principal certifying agent.

##### 7.4.1 Table 2; Assessment/Certification stages

Hold Points	Work type	Document required
Pre-demolition	Installation of the protection measures, Section 7.3	Certificate*
During construction	Any <u>further works</u> required within the area of the TPZ, or decline related to the trees that have not been covered by this report.	Report Brief
During construction	Any crown modification including pruning or root disturbance.	Report Brief

**Construction** refers to the time between the initiation of demolition and until an occupation certificate is issued.

\*Mandatory

#### 8.0 Protection Specification

The retention and protection of trees provide for the requirement of the Tree Protection Zone (TPZ) to conform to the conditions outlined below. These conditions provide the limitations of work permitted within the area of the Tree Protection Zone (TPZ) and must be adhered to unless otherwise stated.

1. Foundation/footing types should not be strip type, but utilise footing types that are sympathetic towards retaining root system that is, screw, pier, etc. Slab on the ground can be accommodated in some circumstances and will be nominated by the project arborist. The extent of encroachment will be dependent upon the tree species, soil type (texture and profile) and gradients.
2. Subsurface utilities can extend through the TPZ and Structural Root Zone (SRZ), however, are limited to the method of installation. That is under boring is permitted, however trenching is limited and depends on the proposed route within the TPZ. No trenching is permitted within the area of the TPZ unless stipulated by the project arborist.

3. Crown pruning can be accommodated, however, must conform to the AS 4373; *Pruning of Amenity Trees*, and not misshape the crown nor remove in excess of 10-15% of the existing crown, pending on the species, and vitality. The opportunity for, type and proportion of pruning will be required to be nominated by the project arborist.
4. Soil levels within the TPZ must remain the same. Any excavation within the TPZ must have been previously specified and allowed for by the project arborist:
  - a) So it does not alter the drainage to the tree.
  - b) Under specified circumstances,
    - o Added fill soil does not exceed 100mm in depth over the natural grade. Construction methodologies exist that can allow grade increases in excess of 100mm, via the use of an impervious cover, an approved permeable material or permanent aeration system or other approved methods.
    - o Excavation cannot exceed a depth of more than 50mm within the area of the TPZ, not including the SRZ. The grade within the SRZ cannot be reduced without the consent from a project arborist.
5. No form of material or structure, solid or liquid, is to be stored or disposed of within the TPZ.
6. No lighting of fires is permitted within the TPZ.
7. All drainage runoff, sediment, concrete, mortar slurry, paints, washings, toilet effluent, petroleum products, and any other toxic wastes must be prevented from entering the TPZ.
8. No activity that will cause excessive soil compaction is permitted within the TPZ. That is, machinery, excavators, etc. must refrain from entering the area of the TPZ unless measures have been taken, and with consultation with the project, arborist to protect the root zone.
9. No site sheds, amenities or similar site structures are permitted to be located or extend into the area of the TPZ unless the project arborist provides prior consent.
10. No form of construction work or related activity such as the mixing of concrete, cutting, grinding, generator storage or cleaning of tools is permitted within the TPZ.

11. No part of any tree may be used as an anchorage point, nor should any noticeboard, telephone cable, rope, guy, framework, etc. be attached to any part of a tree.
12.
  - (a) All excavation work within the TPZ will utilise methods to preserve root systems intact and undamaged. Examples of methods permitted are by hand tools, hydraulic, or pneumatic air excavation technology.
  - (b) Any root unearthed which is less than 50mm in diameter must be cleanly cut and dusted with a fungicide, and not allowed to dry out, with minimum exposure to the air as possible.
  - (c) Any root unearthed which is greater than 50mm in diameter must be located regarding their directional spread and potential impact. A project arborist will be required to assess the situation and determine future action regarding retaining the tree in a healthy state.

Project Arborist: person nominated as responsible for the provision of the tree assessment, arborist report, consultation with stakeholders, and certification for the development project. This person will be adequately experienced and qualified with a minimum of a level 5 (AQF); Diploma in Horticulture (Arboriculture)<sup>7</sup>.

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<sup>7</sup> Based upon the definition of a 'consulting arborist' from the AS 4970; Protection of trees on development sites; 2009, section 1.4.4, p 6.

## **9.0 Summary of tree impact by design**

Based on the design supplied, the following summary provides the impacts imposed on the trees included in this report.

### **9.1 Trees No. 22-31, 42, 43, 49-51, 63, 117-129, 144, 146-150 and 172-227**

These trees are not adversely impacted by design, that is, they conform to a minor encroachment or less and the nominated zones of protection (TPZ, SRZ) based on the requirements of the Protection Specification, Section 8.0. The proposed design does not adversely affect these trees.

### **9.2 Trees No. 5-19, 44, 45, 52-55, 65, 77, 130-143, 145, 152-166 and 168-171**

The proposed design will impact adversely on these trees and are unable to be retained based on the design.

### **9.3 Trees No. 1-8, 14-16, 19, 21, 27, 30, 33, 34, 36-43, 45, 46, 48, 50, 53-58, 60-64, 66, 67, 70-72, 74, 75, 80, 83, 88-94, 98-100, 104, 106, 107, 112, 113, 127, 131, 136, 137, 146, 148-150, 152, 154-156, 159-161, 163, 164, 168, 169, 176-181, 183, 187, 189-191, 193, 194, 196, 197, 199, 201, 204-208, 210-212, 214, 215, 217-219, 221 and 227**

These trees provide poor form and a limited useful life expectancy, however the majority exhibit increased significance due to wildlife habitat, that is nesting hollows.

### **9.4 Trees No. 1-4, 20, 21, 32-41, 46-48, 56-62, 64, 66-76, 78-116, 151 and 167**

These trees are not directly located in the footprint of the proposed design, however, are subject to an encroachment. That is, the proportion of encroachment (being an intrusion into the root zone) provided by design could adversely impact on the tree. The proportion of this encroachment, therefore, impact on the tree has been unable to be determined because the tree locations have not been included in the drawings, see Section 4.5.1.

### **9.5 Sub-surface utilities**

No drawings have been provided for the proposed route of sub-surface utilities. Any trenching, other than what has been allowed for should be avoided within the area of the TPZ's for any tree nominated for retention. Any proposed route shall be re-routed outside of the TPZ. Under boring may be required if a limitation for the route of a service is restricted to an area that falls within the TPZ from any tree. Any excavation in the area of a TPZ must be authorised and conditioned by the project arborist.

### **9.6 Protection measures**

Protection measures (outlined in Section 7.3 and 7.4) are required to be implemented for the trees nominated for retention (referenced in Section

9.1) and installed before initiation of site works (including demolition/excavation) and retained until the landscaping works are required unless otherwise specified.

All workers related to the construction process and before entering the site must be briefed about the requirements/conditions outlined in this report relative to the zone of protection, measures, and specifications before the initiation of work.

A project arborist is required to be nominated, and the stages and related certification or similar documentation is to be issued to the principal certifying agent.

**The opinions expressed in this report by the author have been provided within the capacity of a Consulting Arborist. Any further explanation or details can be provided by contacting the author.**

Assessed and Prepared by Geoff Beisler

Consulting Arborist

Level 5 Arborist

ISA Tree Risk Assessment Qualification

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Consulting Arborist; Principal

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## 10.0 Appendix A- Terminology Defined

### Height

Is a measure of the vertical distance from the average ground level around the root crown to the top surface of the crown, and on palms - to the apical growth point.

### DBH

Diameter at Breast Height – being the stem diameter in meters, measured at 1.4m from ground level, including the thickness of the bark.; Mult. refers to multiple stems, that is in excess of 4 stems.

### Crown Spread

A two-dimension linear measurement (in metres) of the crown plan. The first figure is the north-south span, the second being the east-west measurement.

### Age

Is the estimate of the specimen's age based upon the expected lifespan of the species. This is divided into three stages.

Young (Y)	Trees less than 20% of life expectancy.
Mature (M)	Trees aged between 20% to 80% life expectancy.
Over-mature (O)	Trees aged over 80% of life expectancy with probable symptoms of senescence.

### Crown Aspect

In relation to the root crown, this refers to the aspect the majority of the crown resides in. This will be either termed Symmetrical (Sym.) where the centre of the crown resides over the root crown or the cardinal direction the centre of the crown is biased towards, being either North (N), South (S), East (E) or West (W).

### Vitality Rating

Is a rating of the health of the tree, irrespective and independent of the structural integrity, and defined by the 'ability for a tree to sustain its life processes' ((Draper, Richards, 2009). This is divided between three variables, and based on the assessment of symptoms including, but not limited to; leaf size, colour, crown density, woundwood development, adaptive growth formation, and epicormic growth.

**A:** Normal vitality, typical for the species

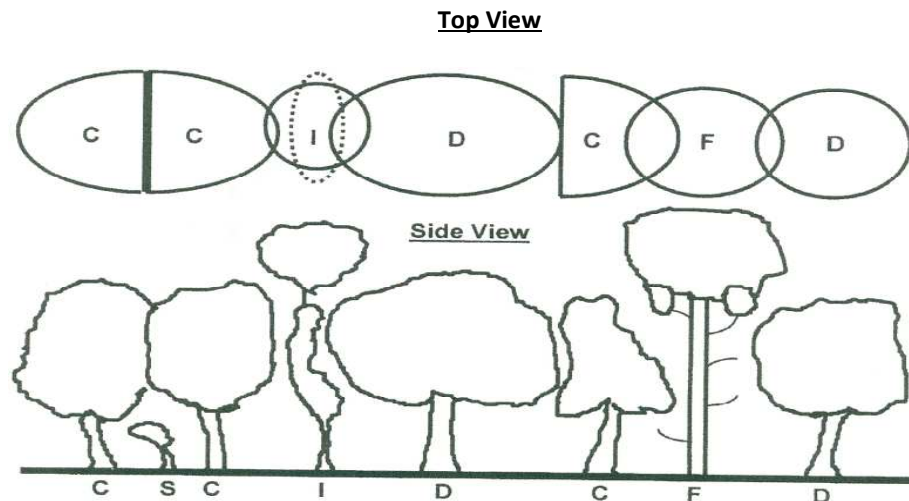
**B:** Below average vitality, possibly temporary loss of health, partial symptoms.

**C:** Poor vitality; obvious decline, potentially irreversible

### Crown Class

Is the differing crown habits as influenced by the external variables within the surrounding environment. They are:

<b>D</b> – <i>Dominant</i>	Crown is receiving uninterrupted light from above and sides, also known as emergent.
<b>C</b> – <i>Codominant</i>	Crown is receiving light from above and one side of the crown.
<b>I</b> – <i>Intermediate</i>	Crown is receiving light from above but not the sides of the crown.
<b>S</b> – <i>Suppressed</i>	Crown has been shadowed by the surrounding elements and receives no light from above or sides.
<b>F</b> – <i>Forest</i>	Characterised by an erect, straight stem (usually excurrent) with little stem taper and virtually no branching over the majority of the stem except for the top of the tree which has a small concentrated branch structure making up the crown.



D C, I & S, and side view, after (Matheny, N. & Clark, J. R. 1998, Trees Development, Published by International Society of Arboriculture, P.O. Box 3129, Champaign IL 61826-3129 USA, p.20, adapted from the Hazard Tree Assessment Program, Recreation and Park Department, City of San Francisco, California).

#### Levels of assessment

**Level 1: Limited visual:** a visual tree assessment to manage large populations of trees within a limited period and in order to identify obvious faults which would be considered imminent.

**Level 2: Basic assessment:** a standard performed assessment providing for a detailed visual assessment including all parts of the tree and surrounding environment and via the use of simple tools.

**Level 3: Advanced assessment:** specific type assessments conducted by either arborist who specialise with specific areas of assessment or via the use of specialised equipment. For example, aerial assessment by use of an EWP or rope/harness, or decay detection equipment.

#### TPZ; Tree Protection Zone

Is an area of protection required for maintaining the trees vitality and long-term viability. Measured in meters as a radius from the trees centre. The requirements of this zone are outlined within the Protection Specification, Section 8.0, and are to be adhered to unless otherwise stated.

The size of the Tree Protection Zone (TPZ) has been calculated from the *Australian Standard, 4970; 2009* – Protection of Trees on Development Sites

The TPZ does not provide the limit of root extension, however, offers an area of the root zone that requires predominate protection from development works. The allocated TPZ can be modified by some circumstances; however will require compensation equivalent to the area loss, elsewhere and adjacent to the TPZ.

#### SRZ; Structural Root Zone

Is the area around the tree containing the woody roots necessary for stability. Measured in meters as a radius from the trees centre. The requirements of this zone are outlined within the Protection Specification, Section 8.0, and are to be adhered to unless otherwise stated.

#### Protection Measures

These are required for the protection of trees during demolition/construction activities.

Protective barriers are required to be installed before the initiation of demolition and/or construction and are to be maintained up to the time of landscaping. Samples of the recommended protection measures are illustrated in Appendix B.

#### All other definitions are referenced from;

Draper D.B., Richards P.A., 2009, Dictionary for Managing Trees in Urban Environments CSIRO Pub., Australia



**Significance Rating**, Significance of a Tree Assessment Rating System (S.T.A.R.S), IACA, 2010<sup>8</sup>

Tree Significance – Assessment Criteria

**1. High Significance in landscape**

- The tree is in good condition and good vitality;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ – tree is appropriate to the site conditions.

**2. Medium Significance in landscape**

- The tree is in fair-good condition and good or low vitality;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.

**3. Low Significance in landscape**

- The tree is in fair-poor condition and good or low vitality;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences,

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<sup>8</sup> IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, [www.iaca.org.au](http://www.iaca.org.au)

unlikely to reach dimensions typical for the taxa in situ – tree is inappropriate to the site conditions,

- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
  - The tree has a wound or defect that has potential to become structurally unsound.
- Environmental Pest / Noxious Weed Species
- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
  - The tree is a declared noxious weed by legislation.


Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous,
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short-term.

**The tree is to have a minimum of three (3) criteria in a category to be classified in that group.**

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g.

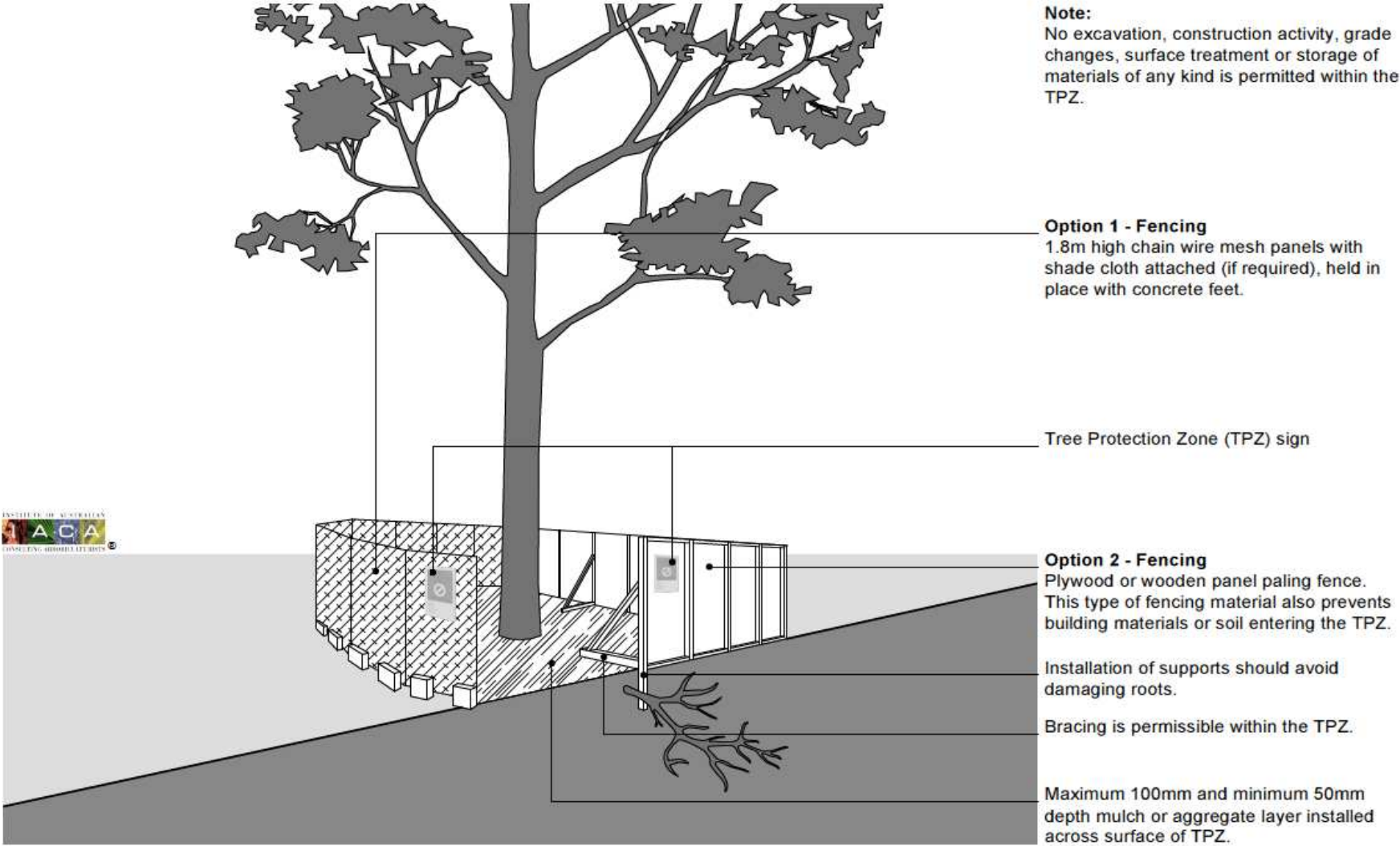
**Table 3; Tree Retention Value – Priority Matrix.**

		Significance				
		1. High	2. Medium	3. Low		
		Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline
Estimated Life Expectancy	1. Long >40 years					
	2. Medium 15-40 Years					
	3. Short <1-15 Years					
	Dead					
Legend for Matrix Assessment 						
		<b>Priority for Retention (High)</b> - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 <i>Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.				
		<b>Consider for Retention (Medium)</b> - These trees may be retained and protected. These are considered less critical; however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.				
		<b>Consider for Removal (Low)</b> - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.				
		<b>Priority for Removal</b> - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.				

**Safe Useful Life Expectancy – S.U.L.E (Barell 1995)**

	<b>1. Long</b>	<b>2. Medium</b>	<b>3. Short</b>	<b>4. Removal</b>	<b>5. Moved or Replaced</b>
	Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 15 – 40 years with an acceptable level of risk.	Trees that appeared to be retainable at the time of assessment for 5 – 15 years with an acceptable level of risk.	Trees that should be removed within the next 5 years.	Trees which can be reliably moved or replaced.
<b>A</b>	Structurally sound trees located in positions that can accommodate future growth.	Trees that may only live between 15 and 40 years.	Trees that may only live between 5 and 15 more years.	Dead, dying, suppressed or declining trees through disease or inhospitable conditions.	Small trees less than 5m in height.
<b>B</b>	Trees that could be made suitable for retention in the long term by remedial tree care.	Trees that may live for more than 40 years but would be removed for safety or nuisance reasons.	Trees that may live for more than 15 years but would be removed for safety or nuisance reasons.	Dangerous trees through instability on recent loss of adjacent trees.	Young trees less than 15 years old but over 5m in heights
<b>C</b>	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.	Trees that may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting.	Trees that may live for more than 15 years but should be removed to prevent interference with more suitable individuals or to provide space for new planting.	Damaged trees through structural defects including cavities, decay, included bark, wounds or poor form.	Trees that have been pruned to artificially control growth.
<b>D</b>		Trees that could be made suitable for retention in the medium term by remedial tree care.	Trees that require substantial remedial tree care and are only suitable for retention in the short term.	Damaged trees that are clearly not safe to retain.	
<b>E</b>				Trees that may live for more than 5 years but should be removed to prevent interference with more suitable individuals or to provide space for new plantings.	
<b>F</b>				Trees that are damaging or may cause damage to existing structures within 5 years.	
<b>G</b>				Trees that will become dangerous after removal of other trees for reasons given in (A) to (F).	

Appendix B- Protection measures;  
Protective fence





## Stem and Ground protection

