

PRELIMINARY TREE ASSESSMENT

For: Bathla

Site Address:

412-414 Cessnock Road, Gilleston Heights

Site Inspection Date: 02nd November 2021

Report Date:

09th November 2021

Job No. 5961

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email: paul@monaco.net.au abn: 69078380168 TREE REPORTS LANDSCAPE PLANS **VEGETATION MANAGEMENT PLANS** IMPORTANT NOTES – Trees on development sites (and neighbouring properties) can potentially render it undevelopable, or reduce potential yield. Developers and builders should obtain advice from a Consulting Arborist prior to purchasing a site, or engaging a Building Designer. A simple site analysis of significant trees and determining their TPZ's could save all parties involved significant time and money.

Many trees contain internal defects, of which many cannot be determined without dissection. These defects could be from genetic, human or environmentally influenced factors that may be hazardous to persons or property. Although deaths are rare from falling trees, common sense should prevail in extreme weather conditions.

This report was not written with the intention of being used in a court of law.

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1. Introduction

1.1 This pre-development assessment has been commissioned by Ms Vandana of Bathla, to assess the species, health, general condition and retention value of the trees located at the pre-mentioned address, (hereafter 'The Site').

2. Documents Provided

2.1 Survey by de Witt Consulting was relied upon for the tree locations – Ref 9061 – Dated 12.03.19

3. Method and Limits

- 3.1 Observations and recordings of the trees were made using the Visual Tree Assessment (VTA) at ground level during the site inspection. The VTA 'interprets the body language of trees, linking internals defects to the trees own repairs structures....so trees that are apparently dangerous should be distinguished from trees that are really dangerous...' (Mattheck 2007). No invasive tests, ie dissections, excavation, probing or coring were undertaken.
- 3.2 Access was predominately available to the site. These findings are summarised in the Tree Assessment Schedule in Section 5.
- 3.3 All native endemic tree species are deemed to be high / very high retention value, irrespective of their condition. Many of the structural faults would not be tolerated within a residential setting.
- 3.4 NSW Government SEED website was referenced for plant community. Dry Sclerophyll Forest was the native vegetation type. However, the limited number of seeds collected (due to mowing) did not directly match the tree species within the SEED plant community. *Eucalyptus robusta* appear present, which was not listed in the SEED community.
- 3.5 For more accurate identification, collection of fruit / seed would be required at the appropriate times. Below table identifies several discrepencies

SEED nominated species	Probable / likely species						
Eucalyptus parramattensis	Eucalyptus amplifolia (similar juvenile leaf and calyptra)						
Eucalyptus fibrosa	Eucalyptus capitellata						
Melaleuca nodosa	Melaleuca styphelioides						

- 3.6 Measurements may include survey data, or be amended where required.
- 3.7 Photographs included within this report were taken at time of initial inspection, unless noted otherwise.
- 3.8 Terminology used in this report is explained in section 6.

- 3.9 Crown spreads are taken as an average of the radii, unless the crown is severely distorted or the issue requires more accurate dimensioning.
- 3.10 The Australian Standard AS 4970-2009 'Protection of Trees on Development Sites' is utilised where applicable for determining minimum clearances where works encroach the tree protection zone (TPZ). However, distances may be varied by the Consulting Arborist once other factors are taken into consideration, including but not limited to; individual species tolerance to disturbance, soil geology and topography, meso / microclimate, proposed construction / engineering methods and potential Arboricultural techniques that could be utilised.
- 3.11 No advice that site is Bushfire prone.

4. The Site

4.1 The site is highly disturbed. It appears to be constantly mown. Earth moving vehicles are also commencing works.

5. Tree Assessment Schedule

No.	Scientific Name	Age Class	Health	Condition	Height (m)	Spread (m)	D BH (mm)	On / Off Site	Disease	Retention Value	TPZ / SRZ (m) [Based on AS4970- Can be varied subject to detailed inspection]
1	Eucalyptus amplifolia (as)	M	G	G	12	15	500	On	-	Very High	6.6 / 2.57
2	Eucalyptus amplifolia (as)	M	G	G	15	> 20	700 350	On	-	Very High	8.4 / 2.85 – 4.2 / 2.13
3	Eucalyptus amplifolia (as)	M	G	G	15	10	400	On	-	Very High	4.8 / 2.25
4	Eucalyptus amplifolia (as)	M	G	G	12	15	450	On	-	Very High	5.4 / 2.37
5	Eucalyptus amplifolia (as)	M	G	G	12	10	300	On	-	Very High	3.6 / 1.99
6	Eucalyptus amplifolia (as)	M	G	G	12	10	400	On	-	Very High	4.8 / 2.25
7	Eucalyptus robusta (as)	M	G	G	18	> 20	800	On	ı	Very High	9.6 / 3.01
8	Eucalyptus robusta (as)	M	G	a/ p	15	15	600	On	Y	High	7.2 / 2.67
9	Eucalyptus amplifolia (as)	M	G	G	18	15	500	On	-	Very High	6.6 / 2.57
10	Eucalyptus amplifolia (as)	M	G	G	18	15	500	On	ı	Very High	6.6 / 2.57
11	Eucalyptus capitellata (as)	M	G	G	18	> 20	600	On	-	Very High	7.2 / 2.67
12	Eucalyptus capitellata (as)	M	G	G	15	15	450	On	-	Very High	5.4 / 2.36
13	Eucalyptus amplifolia (as)	M	G	G	15	20	650	On	-	Very High	7.8 / 2.76
14	Melaleuca styphelioides	M	G	g/ a	12	10	400	On	Y	Very High	4.8 / 2.25

No.	Scientific Name	Age Class	Health	Condition	Height (m)	Spread (m)	D BH (mm)	On / Off Site	Disease	Retention Value	TPZ / SRZ (m) [Based on AS4970- Can be varied subject to detailed inspection]
15	Melaleuca styphelioides	M	G	G	12	10	500	On	-	Very High	6.6 / 2.57
16	Melaleuca styphelioides	M	G	G	12	18	>1k	On	-	Very High	12 / 3.31
17	Eucalyptus capitellata (as)	M	G	g/ a	18	> 20	800	On	-	Very High	9.6 / 3.01
18	Dead										
19	Eucalyptus robusta (as)	M	G	g/ a	18	> 20	700	On	-	Very High	8.4 / 2.85
20	Angophora bakeri	M	G	G	12	12	550	On	-	Very High	6.6 / 2.57
21	Eucalyptus capitellata (as)	M	A	A	12	15	400	On	Y	Mod	4.8 / 2.25
22	Corymbia maculata	M	G	G	> 20	> 20	>1k	On	-	Very High	12 / 3.31
23	Eucalyptus capitellata (as)	M	G	g/ a	18	> 20	900	On	Y	Mod/ High	10.8 / 3.17
24	Eucalyptus capitellata (as)	M	G	G	15	18	400	On	-	Very High	4.8 / 2.25
25	Eucalyptus capitellata (as)	M	G	G	15	> 20	800	On	-	Very High	9.6 / 3.01
26	Eucalyptus amplifolia (as)	M	G	G	18	18	700	On	-	Very High	8.4 / 2.85
27	Eucalyptus capitellata (as)	M	G	g/ a	15	15	650	On	-	Very High	7.8 / 2.76
28	Eucalyptus capitellata (as)	M	G	G	18	18	500	On	Y	Very High	6 / 2.47
29	Eucalyptus robusta (as)	M	G	G	> 20	> 20	500 700	On	-	Very High	6.6 / 2.57
30	Eucalyptus capitellata (as)	M	G	G	18	> 20	900	On	-	Very High	10.8 / 3.17
31	Eucalyptus capitellata (as)	M	G	G	> 20	> 20	>1k	On	-	Very High	12 / 3.31
32	Eucalyptus amplifolia (as)	M	G	g/ a	18	18	600	On	Y	High	7.2 / 2.67
33	Eucalyptus amplifolia (as)	M	G	G	15	18	750	On	-	Very High	9 / 2.93
34	Eucalyptus amplifolia (as)	M	G	A	15	15	900	On	Y	Mod	10.8 / 3.17
35	Eucalyptus amplifolia (as)	M	G	G	18	18	900 App	On	-	Very High	10.8 / 3.17
36	Eucalyptus amplifolia (as)	M	G	G	12	12	450 App	On	-	Very High	5.4 / 2.36
37	Eucalyptus amplifolia (as)	M	g/ a	G	12	12	450	On	-	Very High	5.4 / 2.36
38	Eucalyptus amplifolia (as)	M	G	G	10	8	300	On	-	Very High	3.6 / 1.99
39	Eucalyptus capitellata (as)	M	G	G	18	> 20	800	On	-	Very High	9.6 / 3.01
40	Eucalyptus robusta (as)	M	G	g/ a	15	18	600	On	-	Very High	7.2 / 2.67
41	Eucalyptus robusta (as)	M	G	G	12	15	450	On	-	Very High	5.4 / 2.36
42	Eucalyptus robusta (as)	M	G	G	12	15	550	On	-	Very High	6.6 / 2.57

No.	Scientific Name	Age Class	Health	Condition	Height (m)	Spread (m)	D BH (mm)	On / Off Site	Disease	Retention Value	TPZ / SRZ (m) [Based on AS4970- Can be varied subject to detailed inspection]
43	Eucalyptus robusta (as)	M	G	g/ a	12	10	550	On	Y	Mod	6.6 / 2.57
44	Eucalyptus robusta (as)	M	G	g/ a	12	15	550	On	Y	High	6.6 / 2.57
45	Eucalyptus robusta (as)	M	G	G	15	> 20	700	On	-	Very High	8.4 / 2.85
46	Eucalyptus robusta (as)	M	G	G	16	> 20	850 Bse	On	ı	Very High	10.2 / 3.09
47	Eucalyptus robusta (as)	M	G	G	16	> 20	800	On	ı	Very High	9.6 / 3.01
48	Eucalyptus robusta (as)	M	G	G	14	> 20	900	On	ı	Very High	10.8 / 3.17
49	Eucalyptus robusta (as)	M	G	G	16	> 20	900	On	ı	Very High	10.8 / 3.17
50	Eucalyptus robusta (as)	M	G	G	16	16	600	On	Y	High	7.2 / 2.67
51	Eucalyptus robusta (as)	M	P	P	14	16	500	Off	Y	Low	Dying
52	Eucalyptus robusta (as)										Dying
53	Eucalyptus robusta (as)	M	G	G	18	> 20	900	On	-	Very High	10.8 / 3.17
54	Eucalyptus robusta (as)	M	G	G	10	10	300	On	-	Very High	3.6 / 1.99
55	Corymbia maculata	M	G	G	18	15	550	On	ı	Very High	6.6 / 2.57
56	Eucalyptus robusta (as)	M	G	G	12	18	500	On	-	Very High	6.6 / 2.57
57	Eucalyptus robusta (as)	M	G	A	10	6	300	On	Y	High	3.6 / 1.99
58	Eucalyptus robusta (as)	M	G	A	10	8	300	On	Y	High	3.6 / 1.99
59	Eucalyptus robusta (as)	M	G	A	10	8	300	On	Y	High	3.6 / 1.99
60	Eucalyptus robusta (as)	M	G	A	10	10	350	On	Y	High	4.2 / 2.13
61	Eucalyptus robusta (as)	M	G	A	10	10	300	On	Y	High	3.6 / 1.99

6. General Comments

- 6.1 T8 has significant decay and deadwood. Co-dominant leader removed and basal / trunk cavities.
- 6.2 T14 and T17 Trunk wounds.
- 6.3 T19 Trunk cavity.
- 6.4 T21 Cavities and dead co-dominant leader.
- 6.5 T23 Deadwood, thinning crown and dieback.

- 6.6 T25 Active termite nest and significant mistletoe.
- 6.7 T27 Trunk wound and cavities.
- 6.8 T28 and T39 Active termite trails.
- 6.9 T30 Active termite nest.
- 6.10 T32, T37 and T40 Trunk wound.
- 6.11 T34 Significant trunk wound and decay.
- 6.12 T50 Thinning crown and deadwood.
- 6.13 T51 Dying from road works.
- 6.14 T56 Trunk cavity.
- 6.15 T57-T61 Deadwood and thinning crowns.

Regards Paul Monaco

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Limitation of liability

This report has been prepared by the arborist and must be accepted on the basis that all reasonable attempts have been made to identify factors and features relevant to the tree(s) specified. Unless otherwise stated, observations have been made by eye from ground level (VTA).

It must be noted that any opinions given by the arborist relating to the health, desirability, or significance of any tree will not necessarily coincide with the opinions of the relevant council authorities or their Tree Management Officers.

Surveys are not undertaken by Monaco Designs PL. Hence we cannot confirm their accuracy.

Tree related hazards should be kept in perspective with man made hazards. Roof materials, advertising material, general rubbish etc can cause serious harm if they fall in extreme weather conditions. Trees should be seen in perspective with other essentials / desirables of life, which are not hazard free.

7. Terminology Used In This Report

- 7.1 AGE CLASSES: (I) Immature refers to a juvenile tree. (S) Semi-mature, refers to a tree between growth stages immature and mature. Can be sexually mature. (M) Either a tree at sexual maturity, or a tree approaching full size with some opportunity for further growth. (O) Over-mature, refers to a tree past its peak growth or health and is either in, or about to enter decline.
- 7.2 HEALTH CLASS: A combination of several factors including, but not limited to; crown density, leaf colour, presence of epicormic shoots, ability to withstand disease invasion and degree of die back. Good (G) / Average (A) / Poor (P).
- 7.3 CONDITION CLASS: refers to the trees form and growth habit as a result of its environment (aspect, suppression by other trees and soils). It takes into consideration structural defects as per the VTA. Good (G) / Average (A) / Poor (P).
- 7.4 DIAMETER AT BREAST HEIGHT (DBH):- Expressed in millimetres, this is the average radius measured at 1400mm from the ground for single trunk specimens. For multiple trunked specimens, the measurement is taken below the flange of the branch collar. Where a 19tree is trunkless, diameter is determined by taking an average of the radius and noted at ground level.
- 7.5 DISEASE: Includes a range of factors, biotic and abiotic in nature that could affect the long term vitality of the specimen, ie pests, pathogens, cankers, soil compaction etc.
- 7.6 RETENTION VALUE: Has been determined based on (but not limited to) the following criteria:-
 - 7.6.1 <u>Zero</u> Tree is a noxious / environmental weed, diseased or damaged beyond remediation and removal required or exempt from Local Council's TPO.
 - 7.6.2 <u>Low</u> An immature specimen that could be replaced with new tree planting, poor representation of the species, negative impact on amenity or visual significance within the landscape.
 - 7.6.3 <u>Moderate</u> Tree has a fair contribution to visual character, good representation of species, semi-mature / mature specimen, potential habitat relevance.
 - 7.6.4 <u>High</u> Excellent visual character / amenity, representation of species, mature specimen, indigenous / endemic species.
 - 7.6.5 <u>Very High</u> Endangered or threatened species, heritage / historical or cultural significance, endemic species / remnant vegetation, habitat for endangered or threatened fauna, commemorative planting. Trees on neighbouring properties, including Council Land.
- 7.7 Tree Protection Zone (TPZ):- As defined by AS 4970-2009 'A specified area above and below ground and at a given distance from the trunk set aside for the protection of a trees roots and crown to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development'. TPZ = DBH x 12 (represented as radius).
- 7.8 Structural Root Zone (SRZ):- As defined by AS 4970-2009 'The area around the base of a tree required for the trees stability in the ground'.
- 7.9 VTA Visual Tree Assessment described by Dr Clause Mattheck in '*The Body Language of Trees*'. This assessment process is supported by <u>The International Society of The International </u>

<u>Arboriculture</u>, as a system to inspect trees for indicators of structural defects that may pose a risk of failure.

7.10 (as): - Assumed species

8. References / Bibliography

- 8.1 AS 4373 1996 'Pruning of Amenity Trees'.
- 8.2 AS 4970-2009 'Protection of Trees on Development Sites'.
- 8.3 Brooker, I. and Kleinig, D. (1996) 'Eucalyptus, An Illustrated Guide to Identification Vol. 1' Reed Books Australia.
- 8.4 Fairley, A and Moore, P. (1989) 'Native Plants of the Sydney District', Kangaroo Press, Kenthurst NSW.
- 8.5 Harris, R.W. ET AL (2004) 'Arboriculture 4th Ed.', Prentice Hall.
- 8.6 Robinson, L. (1994) 'Field Guide to the Native Plants of Sydney', Kangaroo Press.
- 8.7 Mattheck, C. (2015) 'The Body Language of Trees Encyclopedia of Visual Tree Assessment' Karlsruhe Institute of Technology.
- 8.8 https://datasets.seed.nsw.gov.au/dataset/

9. Survey Plan - NTS



10. Assorted Pictures





Plate 1 – In vicinity of T4-T10

Plate 2 – T14-T16 back left





Plate 3 – Trees in S/W corner

Plate 4 – T28-T28





Plate 5 – T17-T33

Plate 6 – T46-T51