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tree care and consultancy

**Preliminary Advice
Redevelopment
of
Scottish Hospital Site
Paddington**

Prepared for:

**The Presbyterian Church (NSW) Property Trust
c/o Cerno Management Pty Ltd
Suite 2, Level 4 280 George Street
SYDNEY NSW 2000**

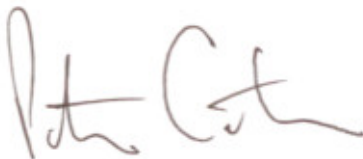
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Peter Castor
Director

BSc (For.)
Member: AIH, NAAA, ISAAC, IACA, PIA, MAE (UK)
13 November 2009

TABLE OF CONTENTS

1.	BACKGROUND	4
2.	METHODOLOGY	5

ATTACHMENTS

- A.** Tree Schedule
- B.** Site Photographs
- C.** Arboricultural Implications Plan

1. BACKGROUND

1.1 INTRODUCTION

- 1.1.1 This Preliminary Advice was prepared for Cerno Management Pty Ltd on behalf of The Presbyterian Church (NSW) Property Trust in relation to proposed redevelopment of the Scottish Hospital Site, Paddington (the subject site).
- 1.1.2 Over the past decade a number of alternative redevelopment proposals have been investigated for the site however none of these have been completed. Tree Wise Men® Australia Pty Ltd and others have undertaken tree assessments as part of the redevelopment proposals.
- 1.1.3 Given the length of time since the last tree assessment and given that differing numbering systems have been adopted over the years, it was decided to resurvey the site trees and develop a new numbering system. This document provides preliminary information to assist with development layout of the site based on an up to date Survey and assessment of the site's tree resource.

1.2 THE SUBJECT TREES

- 1.2.1 One hundred and forty four (144) subject trees were assessed. These trees included planted exotics and planted Australian natives. The tree population assessed varied in species, age, vigour and condition. Trees 96 and 116 require removal irrespective of any proposed development, given their hazardous condition.
- 1.2.2 Trees 6, 18, 81, 100, 105, 119 and 122 were Heritage listed trees.
- 1.2.3 The site trees are covered under the Woollahra Council Tree Preservation Order¹.
- 1.2.4 The general findings and data collected for each of the subject trees are contained in Tree Schedule (Attachment A).

¹ Woollahra Council Tree Preservation Order (2006) applies to any tree, with a diameter spread of branches greater than 3m or with a height greater than 5m, irrespective of the spread of branches, any bushland vegetation irrespective of size. Any tree or plant irrespective of size, listed in a register of significant or heritage trees adopted by Council at any time.

2. METHODOLOGY

2.1 DATA COLLECTION

- 2.1.1 In preparation of this Preliminary Advice a ground level, visual tree assessment (VTA)² was undertaken on 4th November, 2009. No aerial (climbing) inspections, woody tissue testing or tree root mapping were undertaken as part of this assessment.
- 2.1.2 Tree heights were estimated. Trunk diameter at breast height (DBH) was estimated at 1.4 metres above ground level and rounded to the nearest 0.1 metre. The vigour of the trees was rated Good, Fair or Poor and a Safe Useful Life Expectancy (SULE) estimated. The terms, Diameter at Breast Height (DBH), Tree Protection Zone (TPZ), ©Significance Rating, ©Retention Index and Safe Useful Life Expectancy (SULE) have been used when describing the site trees. Attachment A provides a detailed explanation of each.
- 2.1.3 All tree offsets mentioned in this document are to centre of trunk unless otherwise stated.
- 2.1.4 The Photographs (Attachment B) were taken by the author at the site inspection of 4th November, 2009.
- 2.1.5 The one hundred and forty four (144) subject trees are those indicated at Attachment C on the Arboricultural Implications Plan (adapted Detailed Survey, DWG NO.10358-20619-2, Project Surveyors October, 2009).
- 2.1.6 The subject trees were numbered and labelled on site with white plastic tags as per the Tree Schedule (Attachment A) and Arboricultural Implications Plan (Attachment C).
- 2.1.7 The tree numbering adopted in this assessment supersedes all previous numbering systems used on the site.

² VTA – Visual Tree Assessment, undertaken by tree professionals, is a recognised (International Society of Arboriculture, Journal of Arboriculture, Vol. 22 No. 6, Nov. 1996) systematic method of identifying tree characteristics and hazard potential. VTA is also an assessment method described by Claus Mattheck in *The Body Language of Trees – A handbook for failure analysis*. The Stationary Office, London (1994)

Attachment A: Tree Schedule

Tree Schedule (Preliminary Advice) - Scottish Hospital, Paddington

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
1	Sydney Red Gum, <i>Angophora costata</i>	0.6, 0.4	18	7	M	G	F	8.0	L	2	A	Twin stemmed from 1 metre; orientation N-S. Three 5 metre tall Pitosporum 5m to NE. One 8 metre tall Turpentine 3 metres to N.
2	Sydney Red Gum, <i>Angophora costata</i>	0.3	13	N4, S2, E4, W2	M	G	F	3.6	M	3	B	Canopy skewed to N.
3	Turpentine, <i>Syncarpia glomulifera</i>	0.4	15	N5, S2, E2, W2	M	G	F	4.8	M	3	B	Eight metre tall Bangalow Palm 2 metres to S.
4	Holm Oak, <i>Quercus ilex</i>	0.6	13	N8, S4, E7, W7	M	G	G	7.2	L	2	A	Four stems from 4 metres. Overhangs play area to the N.
5	Camphor Laurel, <i>Cinnamomum camphora</i>	1.4	18	N10, S8, E8, W8	M	G	F	15.0	L	3	B	Multi stemmed at base with dominant stems to E and W.
6	Weeping Lillypilly, <i>Waterhousia floribunda</i>	0.6, 0.6, 0.5, 0.5, 0.5, 0.4	20	14	M	G	F	10.8	L	1	A	Heritage listed tree. Six stems from base. TPZ to be taken from centre of grove.

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7	Sydney Red Gum, <i>Angophora costata</i>	0.5	20	N5, S7, E7, W7	M	F	F	6.0	M	3	B	Trunk lean to N.
8	Sheoak, <i>Casuarina sp.</i>	0.3	20	N5, S3, E3, W1	M	F	F	3.6	M	3	B	Canopy skewed to N. Small Sassafras nearby.
9	Port Jackson Fig, <i>Ficus rubiginosa</i>	Multi	22	12	M	G	F	12.0	L	1	A	Approximately fifteen stems from base.
10	Sydney Red Gum, <i>Angophora costata</i>	0.3	15	4	M	G	F	3.6	M	3	B	High, drawn up canopy. Eight metre tall <i>Pittosporum</i> 5 metres to E.
11	Magenta Lillypilly, <i>Syzygium paniculatum</i>	0.3	12	N3, S5, E5, W5	M	G	F	3.6	L	3	B	Canopy skewed to S.
12	Magenta Lillypilly, <i>Syzygium paniculatum</i>	0.3	13	N6, S3, E6, W6	M	G	G	3.6	L	3	B	Five metre tall Magenta Lillypilly 3 metres to E.
13	Camphor Laurel, <i>Cinnamomum camphora</i>	1.3 @ 1.0m	18	N10, S13, E12, W12	M	G	G	15.0	L	3	B	Three stems from 2 metres of equal dominance. Roots lifting car park to W.
14	Cocos Palm, <i>Syagrus romanzoffianum</i>	0.2	14	3	M	G	F	2.4	M	4	C	TPO exempt species. Fourteen metre tall Cocos Palm 0.5 metre to N. Six metre tall Turpentine 3 metres to E.
15	Turpentine, <i>Syncarpia glomulifera</i>	0.2	12	3	SM	G	G	2.4	L	4	C	

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16	Camphor Laurel, <i>Cinnamomum camphora</i>	0.8	18	N6, S15, E8, W8	M	G	F	9.6	S	3	C	Canopy skewed to S. Roots lifting car park to S.
17	Turpentine, <i>Syncarpia glomulifera</i>	0.3	10	N5, S4, E4, W2	SM	F	F	3.6	M	3	B	Yellowing, sparse foliage.
18	Port Jackson Fig, <i>Ficus rubiginosa</i>	1.2, 1.2, 1.1, 0.9, 0.8, 0.7	20	N15, S15, E18, W18	M	G	F	15.0	L	1	A	Heritage listed tree. Six stems from base. Stems to NE, NW and S have heavy lean outwards from tree centre. Large crossing stems at 10 metres. TPZ to be taken from centre of grove.
19	African Olive, <i>Olea europaea subsp. Africana</i>	0.4, 0.4	14	N8, S8, E5, W7	M	F	F	6.8	S	3	C	TPO exempt species. Twin stemmed from base; orientation E and W.
20	Holm Oak, <i>Quercus ilex</i>	0.7	16	N8, S3, E5, W3,	M	F	F	8.4	M	3	B	Fungal bracket at base. Stump of failed tree at base to W. Four stems from 3 metres. Canopy skewed to N.
21	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	12	3	M	G	F	3.6	M	4	C	Multiple seedlings around base.
22	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	10	N5, S8, E3, W1	M	G	F	3.6	M	4	C	Canopy skewed to E over road.
23	Canary Island Date Palm, <i>Phoenix canariensis</i>	0.7	13	3	M	G	G	5.0	L	3	B	Transplantable.

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24	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	10	N6, S6, E1, W0	M	G	F	3.6	L	4	C	Twin stemmed from 2 metres. Seedlings around base.
25	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	11	N5, S3, E5, W1	M	G	F	3.6	L	4	C	Canopy skewed to N. Four metre tall young Camphor Laurel 1 metre to N.
26	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	12	N3, S6, E6, W5	M	G	F	4.8	L	4	C	Canopy skewed to E.
27	African Olive, <i>Olea europaea subsp. Africana</i>	Multi	10	N7, S3, E7, W7	M	F	P	9.6	S	4	C	TPO exempt species. Hazardous stem to N overhanging fence and street. Deadwood throughout canopy.
28	Jacaranda, <i>Jacaranda mimosifolia</i>	0.3	9	N7, S3, E4, W5	M	F	F	3.6	M	3	B	Basal cavity to E. Sparse foliage.
29	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	10	N6, S2, E6, W6	M	F	F	3.6	M	4	C	Four X 10 metres tall Chinese Hackberry to the N and E.
30	Native Daphne, <i>Pittosporum undulatum</i>	0.1, 0.1	8	N5, S1, E3, W4	M	G	F	2.0	M	4	C	

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31	Chinese Hackberry, <i>Celtis sinensis</i>	0.5	17	N12, S5, E10, W8	M	G	F	6.0	L	3	B	Canopy skewed to NE over road.
32	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	15	N5, S3, E2, W8	M	G	F	3.6	L	4	C	Canopy skewed over road.
33	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	16	N5, S3, E12, W3	M	G	F	4.8	L	3	B	Canopy skewed over road.
34	Canary Island Date Palm, <i>Phoenix canariensis</i>	0.7	9	4	SM	G	G	5.0	L	3	B	Transplantable. Dead lower fronds.
35	Brushbox, <i>Lophostemon confertus</i>	0.5	17	6	M	G	F	6.0	L	3	B	Overhead service wires near canopy to E.
36	Camphor Laurel, <i>Cinnamomum camphora</i>	0.5	17	N4, S12, E4, W2	M	G	F	6.0	M	3	B	Canopy skewed to E. Overhead service wires near canopy to E.
37	Camphor Laurel, <i>Cinnamomum camphora</i>	1.0	19	8	M	G	F	12.0	M	3	B	Twin stemmed from 2 metres.
38	Magenta Lillypilly, <i>Syzygium paniculatum</i>	0.3	14	5	M	G	G	3.6	L	3	B	Slight canopy skewed to NW.
39	Coral Tree, <i>Erythrina x sykesii</i>	0.4	14	N5, S8, E3, W1	M	G	F	4.8	S	4	C	Canopy skewed to E. Five metre Coral Tree 2 metres to the S.

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40	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	17	N8, S3, E1, W5	M	G	F	3.6	L	3	B	Heavy canopy skewed to W. Canopy contact with building.
41	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	17	N4, S8, E2, W5	M	G	F	4.8	L	3	B	Canopy skewed to N.
42	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	17	N3, S3, E5, W5	M	G	F	4.8	L	3	B	
43	Coral Tree, <i>Erythrina x sykesii</i>	0.6, 0.4	17	N3, S7, E6, W6	M	G	F	9.6	S	3	C	Twin stemmed from base.
44	Coral Tree, <i>Erythrina x sykesii</i>	0.4	15	N3, S8, E8, W2	M	G	P	4.8	S	3	C	Canopy skewed to SE.
45	Camphor Laurel, <i>Cinnamomum camphora</i>	0.3, 0.3, 0.3, 0.1	14	6	M	G	F	6.0	M	3	B	Three stems from base of equal dominance.
46	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	15	N8, S1, E4, W5,	SM	G	F	3.6	L	3	B	Canopy skewed to N.
47	Cotton Palm, <i>Washingtonia robusta</i>	0.4	14	2	M	G	F	4.8	M	3	B	Suppressed to S. Canopy slightly skewed to N.

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48	Brown Pine, <i>Podocarpus elatus</i>	0.5, 0.4, 0.3	14	N8, S8, E3, W5	M	G	P	8.4	S	3	C	Cavities at base to E and W.
49	Jacaranda, <i>Jacaranda mimosifolia</i>	0.3, 0.2	14	N10, S3, E1, W4	M	G	F	4.8	S	3	C	Canopy skewed to N.
50	Chinese Hackberry, <i>Celtis sinensis</i>	0.6	17	N12, S5, E5, W10	M	G	F	7.2	M	3	B	Twin stemmed from 1.2 metre. Canopy skewed to N.
51	Brushbox, <i>Lophostemon confertus</i>	0.5, 0.3	17	6	M	F	F	8.4	M	3	B	Previously topped at 8 metres.
52	Canary Island Date Palm, <i>Phoenix canariensis</i>	0.5	15	3	M	G	G	5.0	M	3	B	Transplantable.
53	African Olive, <i>Olea europaea subsp. Africana</i>	0.3, 0.3, 0.2	11	N8, S2, E3, W6	M	G	P	6.0	M	4	C	TPO exempt species. Three stems from base. Canopy heavily skewed to N. Deadwood throughout canopy.
54	African Olive, <i>Olea europaea subsp. Africana</i>	0.3	12	N5, S8, E1, W6	M	G	F	3.6	M	4	C	TPO exempt species. Canopy skewed to W. Deadwood throughout canopy.
55	Forest Sheoak, <i>Allocasuarina torulosa</i>	0.2	14	2	SM	F	F	2.4	M	4	C	Deadwood in lower canopy.
56	Jacaranda, <i>Jacaranda mimosifolia</i>	0.3, 0.2	13	6	M	F	F	4.8	M	3	B	Twin stemmed from 1 metre.

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57	Jacaranda, <i>Jacaranda mimosifolia</i>	0.3	13	N6, S2, E4, W3	SM	F	F	3.6	M	4	C	Canopy skewed to N.
58	Cocos Palm, <i>Syagrus romanzoffianum</i>	0.3	14	4	M	G	G	3.6	M	4	C	TPO exempt species.
59	Cocos Palm, <i>Syagrus romanzoffianum</i>	0.3	14	3	M	G	G	3.6	M	4	C	TPO exempt species.
60	Cocos Palm, <i>Syagrus romanzoffianum</i>	0.2, 0.2	14	3	M	G	G	3.6	M	4	C	TPO exempt species. Twin stemmed from base, orientation E and W.
61	Swamp Sheoak, <i>Casuarina glauca</i>	0.3	15	4	M	F	F	3.6	M	4	C	Drawn up crown conflicting with Cocos Palms adjacent.
62	Sydney Red Gum, <i>Angophora costata</i>	0.3	14	N6, S1, E4, W4	M	F	F	3.6	M	4	C	Canopy skewed to N.
63	Swamp Sheoak, <i>Casuarina glauca</i>	0.4	17	4	M	G	G	4.8	M	3	B	
64	Swamp Sheoak, <i>Casuarina glauca</i>	0.3	16	N3, S3, E3, W5	M	F	F	3.6	M	3	B	Drawn up, high canopy with skewed to W.
65	Willow Bottlebrush, <i>Callistemon salignus</i>	0.2	8	N5, S1, E2, W4	SM	F	F	2.4	M	4	C	Heavy canopy skewed to N.
66	Swamp Sheoak, <i>Casuarina glauca</i>	0.4	15	N6, S3, E2, W7	M	F	F	4.8	S	4	C	Canopy skewed to N.

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67	Giant Bird of Paradise, <i>Strelitzia nicolai</i>	Multi	9	4	M	F	F	6.0	M	4	C	Clump of approximately 12 stems . Nine metres tall Forest Sheoak growing from within clump. TPZ to be taken from centre of clump.
68	Sydney Red Gum, <i>Angophora costata</i>	0.3	14	N2, S5, E5, W5	SM	G	G	3.6	L	3	B	Specimen of long term potential.
69	Chinese Hackberry, <i>Celtis sinensis</i>	0.6, 0.5	16	N12, S8, E9, W10	M	G	F	10.8	L	2	B	Twin stemmed from base, orientation N and S. Slight canopy skewed to N. Pruned to S.
70	Port Jackson Fig, <i>Ficus rubiginosa</i>	0.2, 0.1, 0.1	8	4	SM	G	F	3.6	L	4	C	Three stems from base. Previously canopy lifted.
71	Chinese Hackberry, <i>Celtis sinensis</i>	0.4, 0.3	16	N8, S7, E4, W8	M	G	F	7.2	L	3	B	Bougainvillea growing throughout lower canopy.
72	Hoop Pine, <i>Araucaria cunninghamii</i>	0.8	20	6	M	G	G	9.6	L	1	A	Canopy contact with building.
73	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	16	N4, S10, E5, W8	M	G	F	4.8	L	3	B	Bougainvillea growing throughout lower canopy. Canopy skewed to S.
74	Cocos Palm, <i>Syagrus romanzoffianum</i>	0.3	12	3	M	G	G	3.6	M	4	C	TPO exempt species.
75	Cocos Palm, <i>Syagrus romanzoffianum</i>	0.3	9	3	M	G	G	3.6	M	4	C	TPO exempt species.

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76	European Hackberry, <i>Celtis australis</i>	0.7	15	N9, S9, E10, W8	M	G	F	8.4	L	2	A	Twin stemmed from 2m, orientation N and S. Canopy overhangs building to W.
77	Canary Island Date Palm, <i>Phoenix canariensis</i>	0.7	5	4	IM	G	G	5.0	L	4	C	Transplantable.
78	Canary Island Date Palm, <i>Phoenix canariensis</i>	0.7	5	5	IM	G	G	5.0	L	4	C	Transplantable.
79	Kentia Palm, <i>Howea forsteriana</i>	0.1	8	2	M	G	G	2.0	L	3	B	Transplantable. Slight trunk lean to N.
80	Cotton Palm, <i>Washingtonia robusta</i>	0.4	15	2	M	G	G	4.8	M	3	B	Transplantable. Crack in bark to E. Conflicting with canopy of Holm Oak (T81) to W.
81	Holm Oak, <i>Quercus ilex</i>	0.9, 0.8	17	N12, S12, E8, W15	M	G	F	15.0	L	1	A	Heritage listed tree. Twin stemmed from base, orientation N and S. Third stem to S previously removed. Heavy canopy skewed to W.
82	African Olive, <i>Olea europaea subsp. Africana</i>	0.3	15	N5, S1, E4, W4	M	G	F	3.6	L	4	C	TPO exempt species. Canopy skewed to N over building. Suppressed upright form.
83	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	15	N6, S1, E2, W4	M	G	F	3.6	L	4	C	Canopy skewed to N over building.
84	Chinese Hackberry, <i>Celtis sinensis</i>	0.3, 0.3	15	N8, S2, E2, W8	M	G	F	6.0	L	3	B	Canopy skewed to NW. Twin stemmed from base. Seedlings adjacent.
85	Sengal Date Palm, <i>Phoenix reclinata</i>	Multi	8	4	M	G	P	5.0	M	4	C	Clump of six. Three stems recently failed.

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86	Bangalow Palm, <i>Archontophoenix cunninghamiana</i>	0.2	12	3	M	G	G	2.4	M	4	C	Transplantable.
87	Chinese Hackberry, <i>Celtis sinensis</i>	0.6, 0.4	18	N10, S10, E6, W6	M	G	F	9.6	L	3	B	Twin stemmed from base orientation E and W. Ivy throughout canopy.
88	Camphor Laurel, <i>Cinnamomum camphora</i>	0.5	15	N5, S5, E8, W0	M	G	F	6.0	L	3	B	Canopy skewed to SE. Five metre tall Chinese Hackberry 1 metre to the NW.
89	Camphor Laurel, <i>Cinnamomum camphora</i>	0.8	17	N5, S9, E9, W5	M	G	F	9.6	L	3	B	Three stems from 3m.
90	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	10	6	SM	F	F	3.6	M	4	C	Canopy skewed to S over fence.
91	Chinese Hackberry, <i>Celtis sinensis</i>	0.5	17	N8, S9, E6, W6	M	G	F	6.0	M	3	B	Trunk lean to W. Possible that stem is emerging from same root system as T92.
92	Chinese Hackberry, <i>Celtis sinensis</i>	0.4, 0.3	16	N8, S5, E11, W0	M	G	F	7.2	S	3	C	Canopy skewed to W. Inclusion in bark. Stem possibly emerging from the same root system as T91.
93	Port Jackson Fig, <i>Ficus rubiginosa</i>	Multi	10	N7, S7, E4, W7	M	G	F	12.0	M	3	B	Growing out from wall. Canopy skewed to W.

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
94	African Olive, <i>Olea europaea subsp. Africana</i>	Multi	5	4	M	P	P	4.8	S	4	C	TPO exempt species. Chinese Hackberry seedlings 2 metres to S and 3 metres to SE.
95	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	15	6	M	G	F	4.8	L	3	B	Twin stemmed from 3 metres; orientation N and S. Canopy contact with building.
96	Camphor Laurel, <i>Cinnamomum camphora</i>	0.6	15	5	N/A	N/A	N/A	7.2	N/A	4	D	DEAD. Remove irrespective of development. Twelve metre tall Chinese Hackberry 2 metres to the N.
97	African Olive, <i>Olea europaea subsp. Africana</i>	0.3, 0.2	12	N6, S1, E6, W1	M	F	F	4.8	M	4	C	TPO exempt species. Canopy skewed to E.
98	African Olive, <i>Olea europaea subsp. Africana</i>	0.3, 0.2	10	N5, S5, E1, W5	M	F	F	4.8	M	4	C	TPO exempt species. Twin stemmed from base. Port Jackson Fig, with DBH of 0.2 metres, growing from base, extending to W.
99	Chinese Hackberry, <i>Celtis sinensis</i>	0.2, 0.2	9	N2, S6, E6, W3	M	G	F	3.6	M	4	C	Twin stemmed from base, orientation E and W. Eighteen metre tall Southern Mahogany, located on neighbouring property, 3 metres to N.
100	Norfolk Island Pine, <i>Araucaria heterophylla</i>	1.1	30	6	M	G	G	13.2	L	1	A	Heritage listed tree. Cavity on W side from 1-3 metres. Hollow trunk. Tallest tree within site.
101	Blackbean, <i>Castanospermum australe</i>	0.3	12	5	M	G	G	3.6	L	3	B	Slight canopy skewed to W.
102	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	15	N10, S1, E1, W6	M	G	F	3.6	M	4	C	Canopy skewed to N.

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
103	African Olive, <i>Olea europaea subsp. Africana</i>	0.3, 0.3	12	N10, S2, E7, W5	M	F	P	6.0	M	4	C	TPO exempt species. Twin stems from base. Lower northern stem in decline. Sparse foliage.
104	Cabbage Tree Palm, <i>Livistona australis</i>	0.3	16	3	M	G	G	3.6	M	2	A	Transplantable. Conflicting with canopy of large Fig.
105	Moreton Bay Fig, <i>Ficus macrophylla</i>	2.5	22	15	M	G	F	15.0	L	1	A	Heritage listed tree. DBH measured at 3.0m. Extensive root buttressing. Hollowing/decayed centre. Multi stemmed from 8m. Large prop root 5m to NE.
106	Camphor Laurel, <i>Cinnamomum camphora</i>	0.4	15	N7, S3, E7, W4	M	G	F	4.8	M	4	C	Base sitting over rock floater. Suppressed to S by T105.
107	Camphor Laurel, <i>Cinnamomum camphora</i>	0.5	15	N6, S3, E6, W6	M	G	F	6.0	M	3	B	Canopy pruned over road to W.
108	Camphor Laurel, <i>Cinnamomum camphora</i>	0.6, 0.3	15	N8, S1, E4, W6	M	G	F	9.6	M	3	B	Trunk lean to N with 'dog leg' at 8 metres.
109	Chinese Hackberry, <i>Celtis sinensis</i>	0.3, 0.1, 0.1	15	N5, S5, E4, W3	M	F	F	4.8	M	4	C	Sparse foliage.
110	Cabbage Tree Palm, <i>Livistona australis</i>	0.3	15	3	M	G	G	3.6	L	2	A	Transplantable. Slight trunk lean to E.

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
111	African Olive, <i>Olea europaea subsp. Africana</i>	Multi	14	N8, S3, E8, W6	M	F	F	7.2	M	3	B	TPO exempt species. Canopy contact with roof.
112	Camphor Laurel, <i>Cinnamomum camphora</i>	0.6	16	N8, S1, E5, W3	M	F	F	7.2	M	3	B	Canopy skewed to N. Deadwood stubs at 4 and 8 metres.
113	Camphor Laurel, <i>Cinnamomum camphora</i>	0.4	13	N8, S1, E6, W5	M	F	F	4.8	L	3	B	Canopy skewed to N.
114	Camphor Laurel, <i>Cinnamomum camphora</i>	1.1	20	N12, S8, E8, W5	M	G	F	13.2	L	3	B	Twin stemmed from 2 metres, orientation N and S. Canopy contact with roof.
115	Tree of Heaven, <i>Ailanthus altissima</i>	0.4	15	N6, S6, E10, W1	M	G	F	4.8	M	4	C	TPO exempt species. Trunk lean to NE. Extensive seed propagation throughout area.
116	Port Jackson Fig, <i>Ficus rubiginosa</i>	0.8, 0.7, 0.6	15	N8, S8, E8, W9	M	F	P	14.4	R	4	D	DBH taken at 1 metre above pavement level. Previously condemned due to hazard potential. Remove immediately. Major trunk failure to NE. Three stems from 1.5 metres. Roots and trunk lifting wall to W.
117	Chinese Hackberry, <i>Celtis sinensis</i>	0.3	14	N5, S7, E4, W6	M	F	F	3.6	L	3	B	Canopy skewed to S.

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
118	Moreton Bay Fig, <i>Ficus macrophylla</i>	0.7	14	N1, S8, E2, W2	M	F	P	8.4	S	4	C	Decay cavity at base on N side. Decayed buttress root to SE. Trunk lean to S with 'dog leg'. Nine metre tall African Olive 5 metres to the E.
119	Kauri Pine, <i>Agathis robusta</i>	1.3	19	N11, S11, E8, W8	M	G	F	15.0	L	1	A	Heritage listed tree. Top previously removed. Canopy overhanging building.
120	Cocos Palm, <i>Syagrus romanzoffianum</i>	0.3	12	4	M	G	G	2.4	L	4	C	TPO exempt species.
121	Moreton Bay Fig, <i>Ficus macrophylla</i>	0.3	9	3	SM	G	F	3.6	L	4	C	Slight canopy skewed to W.
122	Moreton Bay Fig, <i>Ficus macrophylla</i>	2.5	20	N15, S10, E10, W15	M	G	F	15.0	L	1	A	Heritage listed tree. DBH measured at 3 metres above grade. Extensive root buttressing mainly to N, W and S. Canopy overhangs property and road to W. Three main stems. One stem extending to N low from ground level.
123	Chinese Hackberry, <i>Celtis sinensis</i>	0.2	8	N2, S3, E1, W5	SM	G	F	2.4	S	4	C	TPO exempt species (as under 10 metres tall). Canopy skewed to W over road and fence.
124	Chinese Hackberry, <i>Celtis sinensis</i>	0.2	7	N3, S3, E1, W5	SM	G	F	2.4	S	4	C	TPO exempt species (as under 10 metres tall). Canopy skewed to W over road and fence.
125	Canary Island Date Palm, <i>Phoenix canariensis</i>	0.7	6	6	SM	G	G	5.0	L	4	C	Transplantable.

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
126	Moreton Bay Fig, <i>Ficus macrophylla</i>	1.1	19	N10, S4, E8, W3	M	G	F	13.2	M	3	B	Basal cavity to N. Canopy skewed to NE.
127	Port Jackson Fig, <i>Ficus rubiginosa</i>	1.5	18	N12, S8, E15, W5	M	G	F	15.0	M	2	A	Twin stemmed from 4 metres. Heavy canopy skewed to E.
128	Bangalow Palm, <i>Archontophoenix cunninghamiana</i>	0.3	10	3	M	G	G	3.6	L	3	B	Transplantable. Slight trunk lean to W.
129	Bangalow Palm, <i>Archontophoenix cunninghamiana</i>	0.3	10	3	M	G	G	3.6	L	3	B	Transplantable.
130	Sydney Red Gum, <i>Angophora costata</i>	0.6	16	N7, S8, E8, W5	M	G	F	7.2	L	2	A	Canopy skewed to SE over building.
131	African Olive, <i>Olea europaea subsp. Africana</i>	0.3	12	N6, S4, E6, W6	M	F	F	3.6	M	4	C	TPO exempt species. Multi stemmed from 2 metres. Canopy skewed to W over road.
132	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	15	N10, S0, E4, W10	M	G	F	4.8	S	3	C	Trunk lean and canopy skewed to W. Canopy contact with building.
133	Magenta Lillypilly, <i>Syzygium paniculatum</i>	0.3	13	N6, S1, E8, W3	M	G	F	3.6	L	3	B	Canopy skewed to E.

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
134	Illawarra Flame Tree, <i>Brachychiton acerifolius</i>	0.3	12	3	M	G	G	3.6	L	3	B	
135	Chinese Hackberry, <i>Celtis sinensis</i>	0.4	12	N 8, S3, E2, W10,	M	G	F	4.8	S	3	C	Canopy skewed to W over road.
136	Sydney Red Gum, <i>Angophora costata</i>	0.3	10	N4, S5, E5, W2,	M	F	F	3.6	M	3	B	Canopy skewed to E. Sparse foliage.
137	Forest Sheoak, <i>Allocasuarina torulosa</i>	0.3	12	4	M	G	G	3.6	L	3	B	
138	Chinese Hackberry, <i>Celtis sinensis</i>	0.2	9	N2, S2, E1, W4	SM	F	F	2.4	M	4	C	TPO exempt species (as under 10 metres tall). Canopy skewed to NW over road.
139	Turpentine, <i>Syncarpia glomulifera</i>	0.2	8	N2, S2, E4, W1	SM	G	F	2.4	L	4	C	Canopy skewed to E over bin store.
140	Chinese Hackberry, <i>Celtis sinensis</i>	0.2	8	N4, S1, E4, W3	SM	G	F	2.4	M	4	C	TPO exempt species (as under 10 metre tall). Canopy skewed to N.
141	Swamp Sheoak, <i>Casuarina glauca</i>	0.4	16	5	M	G	G	4.8	L	3	B	Twin stemmed from 6 metres.

TREE No.	COMMON NAME/ GENUS SPECIES	DBH (m)	HEIGHT (m)	CANOPY RADIUS (m)	AGE CLASS	VIGOUR	CONDITION	TPZ RADIUS (m)	SULE	©SIG RATING	©RETENTION INDEX	COMMENTS
142	Tallowwood, <i>Eucalyptus microcorys</i>	0.4, 0.4, 0.3	17	N4, S4, E6, W6	M	G	F	7.2	L	3	B	Located on neighbouring property. Three stems from 6 metres of equal dominance. Deadwood in lower canopy.
143	Tallowwood, <i>Eucalyptus microcorys</i>	0.7	17	N5, S3, E7, W7	M	G	G	8.4	L	2	A	Located on neighbouring property. Slight asymmetrical canopy weighted to E and W.
144	Tallowwood, <i>Eucalyptus microcorys</i>	0.8	17	N8, S4, E8, W6	M	G	F	9.6	L	2	A	Located on neighbouring property. Pruned to N. Slight trunk lean to W.
144												

©SIG. RATING	NO. OF TREES
1	9
2	10
3	70
4	55
©RETENTION INDEX	
A	18
B	62
C	62
D	2

COMMON NAME/GENUS SPECIES CULTIVAR - Common names can vary with selected texts. Where species is unknown, "sp." indicated after genus. Where cultivar is unknown "cv" indicated after species. The number in brackets e.g. (x9) after the species indicates the number of trees in this tree group.

DBH - Diameter at Breast Height. Tree trunk diameter measured at breast height (1.4 metres above ground level). Fabric diameter tape is used which assumes a circular cross section. Multiple measurements indicate multiple trunks. More than three trunks are indicated as "multi". Where DBH measurement cannot be taken at 1.4m the height at which it has been taken is indicated in the Comments column.

CANOPY RADIUS – Average canopy radius (widest + narrowest ÷ 2). Circular canopy depictions on Tree Plan/Survey are indicative only. Where canopy spread was significantly skewed, all four cardinal point measurements were recorded.

AGE CLASS - Immature (IM), Semi-mature (SM), Mature (M), Over-mature (OM). Assessment of the tree's current Age. A **Mature (M)** tree has reached a near stable size (biomass) above and below ground. Trees can have a Mature age class for >90% of life span. **Over-mature (OM)** trees show symptoms of irreversible decline and decreasing biomass.

VIGOUR - Good (G), Fair (F) or Poor (P). The general appearance of the canopy/foliage of the tree at the time of inspection. Vigour can vary with the season and rainfall frequency. A tree can have Good vigour but be hazardous due to Poor condition. A tree in Good vigour has the ability to sustain its life processes. Vigour is synonymous with health.

CONDITION - Good (G), Fair (F) or Poor (P). The general form and structure of the trunk/s and branching. Trunk lean, trunk/branch structural defects, canopy skewness or other hazard features are considered.

TPZ RADIUS – Tree Protection Zone. Radial offset (m) of twelve times (12X) trunk DBH measured from centre of trunk (for trees less than 0.3 metre DBH minimum TPZ is 2.0 metres). To satisfactorily retain the tree construction activity (both soil cut and fill) must be restricted within this offset. TPZ offsets are rounded to the nearest 0.1 metre. Existing constraints to root spread can vary TPZ. Generally an area equivalent to the PRZ should be available to the tree post development. Works occupying up to 10% of the TPZ area are acceptable without detailed rootzone assessment.

SULE - Safe Useful Life Expectancy. A systematic pre-development tree assessment procedure developed by Jeremy Barrell, Hampshire, England. The SULE method used in this assessment has been adapted for simplified use within the field. It gives a length of time that the Arborist feels a particular tree can be retained with an acceptable level of risk based on the information available at the time of the inspection. SULE ratings are **Long** (retainable for 40 years or more with an acceptable level of risk), **Medium** (retainable for 16-39 years), **Short** (retainable for 5-15 years) and **Removal** (tree requiring immediate removal due to imminent hazard or absolute unsuitability).

©SIG. RATING - ©Significance Rating Scale (see Notes over)

©RETENTION INDEX (see notes over)

RECOMMENDATIONS - Retain (*R*), *Retain Plus (R+)*, *Transplant (T)* or *Remove (Rm)*.

COMMENTS - Comments relating to the location, surroundings and hazard potential of the trees at the time of inspection and where applicable the reason for removal.

©SIG. RATING - ©Significance Rating Scale. A site specific qualitative evaluation of a tree relative to the existing landuse developed by Tree Wise Men® Australia Pty Ltd. Takes into consideration the impact of the tree on the surrounding landscape, streetscape and bushland. Rarity, habitat value, historical/cultural value and structural form of the tree are considered in this rating system. It is possible for a tree to have a Short SULE and a ©Significance Rating of 1. Likewise it is possible for a tree to be given a Long SULE and a ©Significance Rating of 4 (e.g. weed species). The ©Significance Ratings used in this Report are as outlined in Table 1.

Table 1: ©Significance Rating Characteristics

Rating	Significance	Characteristics (some or all)
©Sig. Rating 1	Exceptional	<ul style="list-style-type: none"> ▪ Major contribution to site amenity ▪ Remnant specimen ▪ Heritage Listed ▪ Listed on Significant Tree Register ▪ Threatened Species ▪ Good vigour and condition ▪ Cultural significance ▪ Possible habitat for threatened fauna ▪ Excellent, well formed specimen ▪ Rare or unusual species ▪ Large above ground biomass ▪ Unique within the site and surrounds
©Sig. Rating 2	High	<ul style="list-style-type: none"> ▪ Considerable contribution to site amenity ▪ Remnant specimen ▪ Good vigour and condition ▪ Threatened Species ▪ Cultural significance ▪ Possible habitat tree for threatened fauna ▪ Well formed specimen ▪ Rare or unusual species ▪ Large or moderate above ground biomass ▪ Other specimens with similar characteristics within the site and surrounds
©Sig. Rating 3	Moderate	<ul style="list-style-type: none"> ▪ Minor contribution to site amenity ▪ Remnant or planted ▪ Fair or Poor vigour and condition ▪ Potential for growth ▪ Well formed or asymmetrical form ▪ Other specimens with similar characteristics within the site and surrounds
©Sig. Rating 4	Low	<ul style="list-style-type: none"> ▪ Small/poor specimen ▪ Poor vigour and condition ▪ Inappropriate for the location ▪ Minor contribution to landscape amenity ▪ Easily replaced ▪ Weed species or TPO Exempt ▪ Hazardous ▪ Previously ©Sig. Rating 5 tree

©RETENTION INDEX. A site specific assessment of an individual tree’s retention value developed by Tree Wise Men® Australia Pty Ltd. Incorporating SULE and ©Significance Rating each tree is allocated a retention value of A, B, C or D. The ©Retention Index values can be described as follows:

©Retention Value A	Should be retained	<ul style="list-style-type: none"> Major redesign may be required (e.g. movement of building footprint, re-alignment of roadway).
©Retention Value B	Could be retained	<ul style="list-style-type: none"> Minor redesign may be required (e.g. level changes, pavement detail).
©Retention Value C	Could be retained	<ul style="list-style-type: none"> Should not constrain proposed development.
©Retention Value D	Remove or fence off (irrespective of development layout.)	<ul style="list-style-type: none"> Imminently dangerous. In an irreversible state of decline.

©Retention Index		©Significance Rating			
		1	2	3	4
SULE Rating	Long (40+ years)	A		B	C
	Medium (15-40 years)	A		B	
	Short (5-15 years)	B			
	Remove (< 5 years)	D			

Preliminary Advice

Attachment B: Site Photographs



Photo A: Vegetation including grassed lawn area.



Photo B: Significant site tree adjacent to building.



Photo C: Buttress roots of Fig and surrounding undergrowth.



Photo D: Entrance to subject site.

C: Arboricultural Implications Plan

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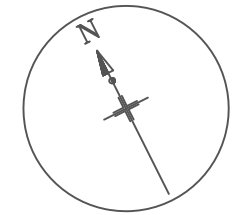
ACN 002 982 247 ABN 15 002 982 247
tree care and consultancy
84 Fuller Street, Collaroy Plateau, NSW, 2097
treewise@treewisemen.com.au
Tel. 61 2 9981 5219 Fax. 61 2 9971 0881



This Plan has been prepared for the exclusive use of the Client. Tree Wise Men® Australia Pty Ltd accepts no responsibility for its use by other persons. This Plan should be considered in conjunction with other Tree Wise Men® Australia Pty Ltd documentation related to this project.

LEGEND

Site boundary:	---
Tree number with trunk as plotted on Survey:	T34
Tree number & TPZ not plotted on Survey (approximate location only):	T115
Heritage listed trees TPZ:	
©Retention Value A TPZ:	
©Retention Value B TPZ:	
©Retention Value C TPZ:	
©Retention Value D TPZ:	
Hazardous or dead trees to be removed: T96 & T116	



Trees 65, 115, 120 & 135 were not plotted on Survey. The location of these trees is approximate only.



TITLE:	©ARBORICULTURAL IMPLICATIONS PLAN	
CLIENT:	PRESBYTERIAN CHURCH (NSW) PROPERTY TRUST	
PROJECT:	SCOTTISH HOSPITAL PADDINGTON	
DRAWING NO:	246B AIP01	
DRAWN BY:	LD	
BASED ON:	DETAIL SURVEY, DWG NO. 10358-20619-2, PROJECT SURVEYORS, OCT. 2009	
DATE:	10/11/2009	Rev.: A
SCALE:	NOT TO SCALE	