

Tree Identification & Retention

A number of significant trees and landscape elements have been identified for protection in any site re-development following a review of the Biosis Kew Cottages Cultural Heritage Survey (2001) and the Conservation Management Plan for the site prepared by Bryce Raworth in association with John Patrick Pty Ltd

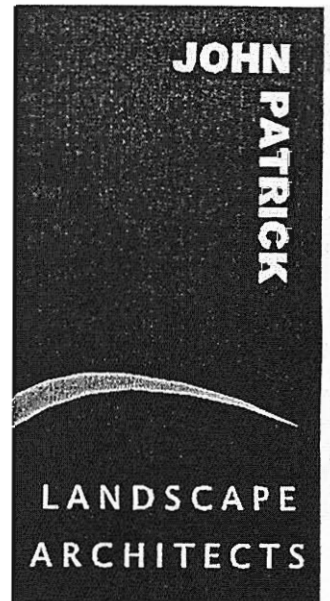
For all trees identified for retention Tree Protection Zones have been prepared following the guidelines prepared by Matheny & Clark in *Trees & Development*. The significant trees are all located on Plan 03-090 together with their proposed Tree Protection Zones. The identification of all significant trees together with an assessment of their health, tree protection zone and required works are provided in Appendix 1.

The Tree Protection Zone will control the works that may be implemented within the area and will ensure protection of the root system through and post re-development. This will place constraints on the placement of buildings, drainage swales, roadways, footpaths and excavated service lines. Full details of constraints within the Tree Protection Zones are provided in the Tree Protection Guidelines (Appendix 2).

An area of indigenous grass in the south-west corner of the site, consists of Wallaby grass (*Austrodanthonia sp.*). While this area is very small and too highly altered to have great significance, it will be protected within the overall protection zone ascribed to this area for the trees.

All significant vegetation on site will be contained within a Vegetation Protection Overlay extending for individual trees to the extent of their Tree Protection Zone. The group of River Red gums (*Eucalyptus camaldulensis*) near the eastern boundary has been provided with an appropriate Vegetation Protection Overlay.

Avenue plantings that form a major visual feature within the site will be protected and where there are gaps



replacement trees will be utilised to re-establish the integrity of the avenue where possible.

Individually significant trees such as the Holly-leaved cherries (*Prunus ilicifolia*) and Bishop pine (*Pinus muricata*) have been retained, provided with a Tree Protection Zone and included within the VPO.

Given that all the trees identified as being of significance have been recommended for retention and provided with adequate Tree Protection Zones and Tree Protection Guidelines, we can see no reason, from a landscape perspective, why the site could not be rezoned for residential development.

In addition to retaining significant vegetation it is recommended that additional planting be carried out along proposed roadways and within areas of public open space. Planting should consist of native and indigenous trees, shrubs and ground-covers as listed in the Planting Palette provided (Appendix 3). Emphasis should be placed on the use of native grasses as opposed to turf, particularly within areas of public open space, in an attempt to reduce the high maintenance involved with the use of turf i.e. supplementary watering and mowing.

Where there are existing significant avenues of trees we would propose to maintain them and replant using the same species, as required. This will primarily involve the use of exotic tree species. While the use of native or indigenous trees would be preferable, we see the maintenance of these avenues in their current context crucial to their significance. Proposed new roads would be planted with native/indigenous material of an appropriate scale to suit the surrounding landscape.

SIGNIFICANT TREE SURVEY**SITE:** Kew Residential Services, Princess Street, Kew**DATE:** 15-07-03

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
1	<i>Eucalyptus camaldulensis</i> River Red gum	1511mm	17m	14x12m	Mature	Fair	Fair/Good	Fair/Good	>20	Possum guard has reduced damage; minor deadwood throughout; minor dieback; slight lean
2	<i>Eucalyptus camaldulensis</i> River Red gum	1070mm	13m	14x14m	Mature	Fair	Fair/Good	Fair/Good	>20	Some possum damage – upper canopy dieback as a result; minor deadwood; slight lean
3	<i>Eucalyptus camaldulensis</i> River Red gum	1165mm	14m	14x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>20	Trunk lean; minor deadwood through canopy
4	<i>Eucalyptus camaldulensis</i> River Red gum	1391mm	16m	20x14m	Mature	Good	Fair/Good	Fair/Good	>20	Hollow in base; minor deadwood; very slight lean
5	<i>Eucalyptus camaldulensis</i> River Red gum	930mm	12m	18x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>20	Small section of mirror bush at union of lowest branch (east side) and trunk; hollows – 1 with bee hive; minor deadwood
6	<i>Eucalyptus camaldulensis</i> River Red gum	1316mm	15m	20x14m	Mature	Good	Fair/Good	Good	>20	Dense canopy; very minor deadwood; some branch stubs with hollows
7	<i>Eucalyptus camaldulensis</i> River Red gum	1056mm	13m	16x12m	Mature	Fair	Fair/Good	Fair	>20	Dead stubs; lean to west, canopy slightly sparse; some possum damage
8	<i>Quercus canariensis</i> Algerian oak	714mm	8m	10x6m	Mature	Fair	Fair/Good	Fair	>5	Adjacent to No.9; canopy competition – 1 sided as a result
9	<i>Quercus canariensis</i> Algerian oak	941mm	10m	12x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Spreading canopy tree; possibly oldest on site
10	<i>Prunus illicifolia</i> Holly-leaved cherry	Multi	3m	4x6m	Mature	Fair	Poor	Fair/Poor	-	Tree now consisting of suckers from the original stump; main trunk section dead
11	<i>Ulmus procera</i> English elm	593mm	7m	10x8m	Mature	Fair/Good	Fair	Fair/Good	>10	Some lopped points and minor deadwood
12	<i>Ficus macrophylla</i> Moreton Bay fig	500mm	6m	10x8m	Mature	Fair/Good	Fair	Fair	>10	Canopy slightly sparse

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
13	<i>Ulmus procera</i> English elm	545mm	6.5m	8x6m	Mature	Fair	Fair	Fair	>5	Some lopped points; minor deadwood
14	<i>Ficus macrophylla</i> Moreton Bay fig	533mm	6m	8x10m	Mature	Fair	Fair	Fair	>5	Sparse canopy; oozing sap; dieback in branches
15	<i>Cupressus torulosa</i> Bhutan cypress	437mm	5m	14x5m	Mature	Fair/Poor	Fair	Fair	5	Sparse canopy – dieback particularly on east side
16	<i>Ficus macrophylla</i> Moreton Bay fig	450mm	6m	8x10m	Mature	Fair	Fair	Fair	>5	Sparse; reduced foliage size; sap oozing; irregular canopy structure
17	<i>Quercus canariensis</i> Algerian oak	610mm	7m	10x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage; very minor deadwood
18	<i>Quercus canariensis</i> Algerian oak	395mm	5m	10x6m	Early maturity	Fair	Fair	Fair	>5	Canopy competition with neighbouring cypress
19	<i>Ficus macrophylla</i> Moreton Bay fig	375mm	5m	10x8m	Mature	Fair	Fair	Fair/Poor	>5	Competition with cypress
20	<i>Quercus canariensis</i> Algerian oak	540mm	6.5m	10x8m	Mature	Fair	Fair/Good	Fair/Good	>5	Possum damage; slight competition with cypress
21	<i>Ulmus procera</i> English elm	558mm	6.5m	10x8m	Mature	Fair	Fair	Fair/Good	>5	Hollow in trunk @ 2.5m at limb loss point
22	<i>Cupressus torulosa</i> Bhutan cypress	452mm	5.5m	16x4m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slightly sparse canopy
23	<i>Ulmus procera</i> English elm	666mm	7.5m	12x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor deadwood
24	<i>Ficus macrophylla</i> Moreton Bay fig	552mm	6.5m	8x8m	Mature	Fair	Fair/Good	Fair/Good	>10	Reduced foliage size
25	<i>Quercus canariensis</i> Algerian oak	731mm	8m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive
26	<i>Cupressus torulosa</i> Bhutan cypress	454mm	5.5m	16x4m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slight competition with No.25

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
25	<i>Quercus canariensis</i> Algerian oak	731mm	8m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive
26	<i>Cupressus torulosa</i> Bhutan cypress	454mm	5.5m	16x4m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slight competition with No.25
27	<i>Cupressus torulosa</i> Bhutan cypress	470mm	6m	16x4m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slight competition with No.25
28	<i>Quercus canariensis</i> Algerian oak	539mm	6.5m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive; some possum damage
29	<i>Quercus canariensis</i> Algerian oak	644mm	7.5m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive
30	<i>Quercus canariensis</i> Algerian oak	619mm	7m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive
31	<i>Cupressus torulosa</i> Bhutan cypress	430mm	4m	16x4m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slightly sparse canopy
32	<i>Quercus canariensis</i> Algerian oak	625mm	7m	10x12m	Mature	Fair/Poor	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive; possum damage and canopy dieback
33	<i>Quercus canariensis</i> Algerian oak	645mm	7.5m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive; minor possum damage
34	<i>Cupressus torulosa</i> Bhutan cypress	477mm	6m	16x4m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slightly sparse canopy
35	<i>Pinus muricata</i> Bishop pine	952mm	11m	12x10m		Fair	Fair	Fair/Good	>5	Some canopy dieback; bifurcated; slight stress
36	<i>Quercus canariensis</i> Algerian oak	535mm	6.5m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Part of avenue planting on lower side of Main Drive; some possum damage
37	<i>Cupressus torulosa</i> Bhutan cypress	533mm	6m	16x4m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slightly sparse canopy
38	<i>Ficus macrophylla</i> Moreton Bay fig	526mm	6.5m	10x8m	Mature	Fair/Good	Fair/Good	Fair	>10	Canopy competition with No.39 on north side

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
39	<i>Quercus canariensis</i> Algerian oak	794mm	9m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage – canopy dieback on east side
40	Gone									
41	<i>Quercus canariensis</i> Algerian oak	658mm	7.5m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage – upper canopy dieback as a result
42	<i>Ulmus procera</i> English elm	625mm	7m	14x10m	Mature	Fair/Good	Fair/Good	Fair	>10	Some lopped points within canopy
43	<i>Quercus canariensis</i> Algerian oak	534mm	6.5m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage
44	<i>Ulmus procera</i> English elm	651mm	7.5m	14x10m	Mature	Fair/Good	Fair/Good	Fair	>10	Some lopped points within canopy
45	<i>Quercus canariensis</i> Algerian oak	676mm	8m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage
46	<i>Quercus canariensis</i> Algerian oak	511mm	6m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage
47	<i>Quercus canariensis</i> Algerian oak	651mm	7.5m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage
48	<i>Quercus canariensis</i> Algerian oak	539mm	6.5m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage; slight canopy competition on west side
49	<i>Quercus canariensis</i> Algerian oak	575mm	7m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage
50	<i>Quercus canariensis</i> Algerian oak	601mm	7m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slightly sparse canopy
51	<i>Ficus macrophylla</i> Moreton Bay fig	600mm	7m	10x8m	Mature	Fair/Good	Fair/Good	Fair	>10	Canopy competition with Cypress on west side
52	<i>Ficus macrophylla</i> Moreton Bay fig	462mm	6m	8x6m	Early maturity	Fair	Fair	Fair	>10	More recent addition to group; sparse canopy

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
53	<i>Ulmus procera</i> English elm	680mm	8m	16x10m	Mature	Fair/Good	Fair	Fair/Good	>10	Pollarded limbs resulting in upright form
54	<i>Ficus macrophylla</i> Moreton Bay fig	384mm @ base	5m	8x6m	Mature	Good	Fair/Good	Fair/Good	>10	Three major leaders; slightly stunted form
55	<i>Quercus canariensis</i> Algerian oak	648mm	7.5m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage; upper canopy dieback
56	<i>Quercus canariensis</i> Algerian oak	682mm	8m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage; upper canopy dieback
57	<i>Quercus canariensis</i> Algerian oak	626mm	7m	8x10m	Mature	Poor?	Fair	Fair/Good	?	May be in decline or early foliage drop; wood green in branch tips
58	<i>Quercus canariensis</i> Algerian oak	688mm	8m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Severe possum damage; sparse canopy
59	<i>Quercus canariensis</i> Algerian oak	516mm	6m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Severe possum damage; sparse canopy
60	<i>Quercus canariensis</i> Algerian oak	790mm	9m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Severe possum damage; sparse canopy
61	<i>Quercus canariensis</i> Algerian oak	773mm	9m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Minor possum damage; upper canopy sparse as a result – lower canopy normal
62	<i>Ulmus procera</i> English elm	722mm	8m	16x10m	Mature	Fair/Good	Fair	Fair/Good	>10	Pollarded limbs resulting in upright form
63	<i>Quercus canariensis</i> Algerian oak	755mm	9m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Minor possum damage; upper canopy sparse as a result; pruned on south side over-hanging neighbouring property
64	<i>Quercus canariensis</i> Algerian oak	643mm	8m	12x10m	Mature	Fair/Poor	Fair	Fair/Good	>10	Severe possum damage; sparse upper canopy
65	<i>Quercus canariensis</i> Algerian oak	600mm	7m	14x10m	Mature	Fair	Fair	Fair/Good	>10	Severe possum damage; sparse upper canopy
66	<i>Quercus canariensis</i> Algerian oak	579mm	7m	12x10m	Mature	Fair/Good	Fair	Fair/Good	>10	Some co-dominant leaders – upright form; some leaders lopped

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
67	<i>Quercus canariensis</i> Algerian oak	721mm	9m	14x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upright form; minor possum damage; upper canopy dieback
68	<i>Quercus canariensis</i> Algerian oak	600mm	7m	12x10m	Mature	Fair/Poor	Fair/Good	Fair	>10	Possum damage; upper canopy sparse; lopped points; competition with elm
69	<i>Quercus canariensis</i> Algerian oak	690mm	8m	12x12m	Mature	Fair	Fair/Good	Fair	>10	Severe possum damage on south side of canopy only; significant dieback
70	<i>Quercus canariensis</i> Algerian oak	629mm	7m	12x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upright form; minor possum damage to upper canopy
71	<i>Quercus canariensis</i> Algerian oak	594mm	7m	12x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upright form; minor possum damage to upper canopy
72	<i>Quercus canariensis</i> Algerian oak	807mm	9m	12x14m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Wide-spreading form; minor possum damage
73	<i>Quercus canariensis</i> Algerian oak	678mm	8m	12x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Wide-spreading form; minor possum damage
74	<i>Quercus canariensis</i> Algerian oak	756mm	9m	14x14m	Mature	Fair/Good	Fair	Fair/Good	>10	Bifurcated @ 4m – no included bark
75	<i>Quercus canariensis</i> Algerian oak	539mm	7m	12x12m	Mature	Fair	Fair	Fair	>10	Possum damage and canopy dieback; deadwood present in graft
76	<i>Quercus canariensis</i> Algerian oak	670mm	8m	14x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage
77	<i>Quercus canariensis</i> Algerian oak	695mm	8m	14x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage and sparse canopy
78	<i>Quercus canariensis</i> Algerian oak	621mm	7m	14x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage to upper canopy
79	<i>Quercus canariensis</i> Algerian oak	804mm	9m	14x14m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage to upper canopy

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
80	<i>Quercus canariensis</i> Algerian oak	533mm	6m	12x10m	Mature	Fair	Fair	Fair/Good	>10	Slight lean; sparse canopy
81	<i>Quercus canariensis</i> Algerian oak	627mm	7m	12x8m	Mature	Fair	Fair/Good	Fair	>10	Lopped on south side; possum damage
82	<i>Quercus canariensis</i> Algerian oak	705mm	8m	12x10m	Mature	Fair	Fair/Good	Fair	>10	Lopped on south side; possum damage
83	<i>Quercus canariensis</i> Algerian oak	758mm	9m	12x10m	Mature	Fair/Good	Fair/Good	Fair	>10	Lopped on south side; possum damage
84	<i>Quercus canariensis</i> Algerian oak	844mm	9m	14x12m	Mature	Fair/Good	Fair/Good	Fair	>10	Lopped on south side; possum damage
85	<i>Quercus canariensis</i> Algerian oak	686mm	8m	12x12m	Mature	Fair/Good	Fair/Good	Fair	>10	Upper canopy damage
86	<i>Quercus canariensis</i> Algerian oak	633mm	7m	10x10m	Mature	Fair/Poor	Fair/Good	Fair/Good	>10	Severe possum damage – almost completely defoliated
87	<i>Quercus canariensis</i> Algerian oak	686mm	8m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage to upper canopy
88	<i>Quercus canariensis</i> Algerian oak	830mm	9m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage to upper canopy
89	<i>Quercus canariensis</i> Algerian oak	846mm	9m	14x16m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor possum damage to upper canopy
90	<i>Quercus canariensis</i> Algerian oak	835mm	9m	14x10m	Mature	Fair	Fair/Good	Fair	>10	Almost entire south side of canopy lopped (over-hanging neighbouring property)
91	<i>Ficus macrophylla</i> Moreton Bay fig	1019mm	11m	12x14m	Mature	Fair/Good	Fair	Fair/Good	>10	Lopped – resulting in multiple leaders; reduced foliage size
92	<i>Ulmus procera</i> English elm	765mm	9m	16x12m	Mature	Fair/Good	Fair	Fair	>10	Pollarded in past – upright form as a result

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
93	<i>Ficus macrophylla</i> Moreton Bay fig	468mm	6m	8x6m	Mature	Poor	Poor	Poor	-	Significant deadwood in all leaders; limited canopy foliage; near dead
94	<i>Ulmus procera</i> English elm	717mm	8m	16x12m	Mature	Fair/Good	Fair	Fair	>10	Pollarded in past – upright form as a result
95	<i>Ficus macrophylla</i> Moreton Bay fig	1077mm	11m	14x14m	Mature	Fair/Poor	Fair	Fair/Good	>10	Foliage sparse and reduced size; significant wounds on leaders
96	<i>Ulmus procera</i> English elm	718mm	8m	16x12m	Mature	Fair/Good	Fair	Fair	>10	Pollarded in past – upright form as a result; some decay in pruning points
97	<i>Ficus macrophylla</i> Moreton Bay fig	670mm	8m	14x14m	Mature	Fair	Fair/Good	Fair/Good	>10	Sparse canopy and reduced foliage size; branch wounds and scars
98	<i>Ulmus procera</i> English elm	744mm	8m	18x8m	Mature	Fair/Good	Fair	Fair	>10	Three major leaders, all upright
99	<i>Ulmus procera</i> English elm	286mm	4m	10x5m	Early maturity	Fair/Good	Fair/Poor	Fair	>5	Irregular canopy form; newer addition to planting; underplanted with agapanthus
100	<i>Ficus macrophylla</i> Moreton Bay fig	640mm	7m	18x14m	Mature	Fair	Fair	Fair/Good		Lopped points with epicormic leaders; sparse canopy
101	<i>Ulmus procera</i> English elm	677mm	8m	16x12m	Mature	Fair/Good	Fair	Fair/Good		Pollarded in the past; upright form
102	<i>Ficus macrophylla</i> Moreton Bay fig	498mm	6m	10x7m	Mature	Fair/Good	Fair/Poor	Fair/Poor	5	All leaders lopped – epicormic shoots form canopy; large wound on trunk
103	<i>Ulmus procera</i> English elm	660mm	8m	14x12m	Mature	Fair/Good	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points
104	<i>Ulmus procera</i> English elm	666mm	8m	14x12m	Mature	Fair/Good	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points
105	<i>Ulmus procera</i> English elm	792mm	9m	16x10m	Mature	Fair/Good	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points; power line pruning to south side

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
106	<i>Ulmus procera</i> English elm	729mm	8m	16x10m	Mature	Fair	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points; power line pruning to south side; decay in trunk
107	<i>Ulmus procera</i> English elm	820mm	9m	18x12m	Mature	Fair	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points
108	<i>Ulmus procera</i> English elm	760mm	9m	16x10m	Mature	Fair	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points
109	<i>Ulmus procera</i> English elm	749mm	8m	16x10m	Mature	Fair/Good	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points
110	<i>Ulmus procera</i> English elm	758mm	8m	16x10m	Mature	Fair/Good	Fair	Fair/Good	>10	Pollarded; upright leaders; minor decay in pruning points
111	<i>Ulmus procera</i> English elm	788mm	9m	16x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Pollarded; upright leaders and minor decay in pruning points.
112	<i>Ulmus procera</i> English elm	841mm	9m	16x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Pollarded; upright leaders and minor decay in pruning points.
113	<i>Ulmus procera</i> English elm	853mm	9mm	16x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Pollarded; upright leaders and minor decay in pruning points.
114	<i>Ulmus procera</i> English elm	849mm	9m	16x12m	Mature	Fair/Good	Fair/Good	Fair/Poor	>10	Pollarded; upright leaders and minor decay in pruning points.
115	<i>Ulmus procera</i> English elm	823mm	9m	16x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Pollarded; upright leaders and minor decay in pruning points.
116	<i>Ulmus procera</i> English elm	936mm	10m	18x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Pollarded; upright leaders and minor decay in pruning points.
117	<i>Ulmus procera</i> English elm	795mm	9m	16x12m	Mature	Fair	Fair	Fair	>10	Pollarded; upright leaders and minor decay in pruning points. One sided canopy.
118	<i>Quercus robur</i> English oak	474mm	6m	10x12m	Mature	Fair	Fair	Fair/Poor	>10	Canopy lean to west due to competition from pine.

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
119	<i>Quercus robur</i> English oak	604mm	7m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	
120	<i>Quercus canariensis</i> Algerian oak	609mm	7m	10x12m	Mature	Fair/Good	Fair	Fair	>10	Pollarded – epicormic shoots from upper canopy.
121	<i>Quercus canariensis</i> Algerian oak	723mm	8m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Sparse upper canopy
122	<i>Quercus robur</i> English oak	546mm	6m	10x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Minor deadwood.
123	<i>Quercus robur</i> English oak	454mm	5m	8x8m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor deadwood.
124	<i>Quercus canariensis</i> Algerian oak	675mm	8m	12x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upper canopy deadwood.
125	<i>Quercus canariensis</i> Algerian oak	666mm	8m	12x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upper canopy slightly sparse.
126	<i>Quercus robur</i> English oak	488mm	6m	10x8m	Mature	Fair/Poor	Fair/Poor	Fair/Poor	>5	Deadwood and dieback in leaders.
127	<i>Quercus canariensis</i> Algerian oak	681mm	8m	14x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upper canopy dieback.
128	<i>Quercus canariensis</i> Algerian oak	780mm	9m	14x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy dieback.
129	<i>Quercus canariensis</i> Algerian oak	547mm	6m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Foliage slightly smaller. Drought stress.
130	<i>Quercus canariensis</i> Algerian oak	717mm	8m	12x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upper canopy slightly sparse.
131	<i>Quercus canariensis</i> Algerian oak	567mm	7m	10x10m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upper canopy slightly sparse.

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
132	<i>Quercus canariensis</i> Algerian oak	883mm	10m	14x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage to upper canopy.
133	<i>Quercus canariensis</i> Algerian oak	692mm	8m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Possum damage to upper canopy.
134	<i>Quercus robur</i> English oak	804mm	9m	14x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Minor deadwood.
135	<i>Quercus canariensis</i> Algerian oak	760mm	9m	14x12m	Mature	Fair/Poor	Fair/Good	Fair/Good	>5	Stress – epicormic shoots on leaders – Drought?
136	<i>Quercus canariensis</i> Algerian oak	652mm	7m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy sparse
137	<i>Quercus robur</i> English oak	750mm	8m	12x8m	Mature	Fair/Good	Fair	Fair	>10	Irregular canopy structure. Pruned on south side.
138	<i>Quercus robur</i> English oak	555mm	7m	10x8m	Mature	Fair/Good	Fair	Fair	>10	Irregular canopy structure. Pruned on south side.
139	<i>Quercus robur</i> English oak	677mm	8m	12x8m	Mature	Fair/Good	Fair	Fair	>10	Irregular canopy structure. Pruned on south side.
140	<i>Quercus canariensis</i> Algerian oak	750mm	8m	14x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy sparse. Possum damage.
141	<i>Quercus canariensis</i> Algerian oak	455mm	6m	10x8m	Mature	Fair	Fair	Fair	>10	Necrotic: sparse upper canopy.
142	<i>Quercus canariensis</i> Algerian oak	551mm	7m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy sparse.
143	<i>Quercus canariensis</i> Algerian oak	527mm	6m	10x12m	Mature	Fair/Poor	Fair/Good	Fair/Good	>10	Stress – epicormic shoots on leaders. Upper canopy sparse.
144	<i>Quercus canariensis</i> Algerian oak	491mm	6m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy sparse.

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
145	<i>Quercus canariensis</i> Algerian oak	540mm	7m	12x12m	Mature	Fair/Poor	Fair/Good	Fair/Good	>10	Upper canopy sparse.
146	<i>Quercus canariensis</i> Algerian oak	590mm	7m	12x10m	Mature	Fair/Poor	Fair/Good	Fair/Good	>10	Stress – epicormic shoots on leaders. Upper canopy sparse.
147	<i>Quercus canariensis</i> Algerian oak	470mm	6m	12x10m	Mature	Fair/Poor	Fair/Good	Fair/Good	>10	Poor health. Upper canopy sparse.
148	<i>Quercus canariensis</i> Algerian oak	472mm	6m	10x12m	Mature	Fair/Poor	Fair/Good	Fair/Good	>10	Poor health. Upper canopy sparse.
149	<i>Quercus canariensis</i> Algerian oak	380mm	5m	10x8m	Mature	Fair/Poor	Fair	Fair/Poor	>5	Competition with neighbouring trees and above.
150	<i>Quercus canariensis</i> Algerian oak	410mm	5m	10x8m	Mature	Fair/Poor	Fair	Fair/Poor	>5	Competition with neighbouring trees and above.
151	<i>Quercus canariensis</i> Algerian oak	609mm	7m	10x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy sparse.
152	<i>Quercus canariensis</i> Algerian oak	632mm	7m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upper canopy slightly sparse.
153	<i>Quercus canariensis</i> Algerian oak	453mm	6m	8x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy slightly sparse.
154	<i>Quercus canariensis</i> Algerian oak	378mm	5m	10x8m	Mature	Fair	Fair/Good	Fair	>10	Upper canopy slightly sparse. Competition with neighbouring trees.
155	<i>Quercus canariensis</i> Algerian oak	400mm	5m	12x10m	Mature	Fair	Fair	Fair	>5	Competition. Sparse canopy.
156	<i>Quercus canariensis</i> Algerian oak	504mm	6m	10x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Sparse – possum damage
157	<i>Quercus canariensis</i> Algerian oak	641mm	7m	12x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Sparse – possum damage

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
158	<i>Quercus canariensis</i> Algerian oak	618mm	7m	10x10m	Mature	Fair	Fair/Good	Fair/Good	>10	Sparse – possum damage
159	<i>Quercus canariensis</i> Algerian oak	600mm	7m	10x8m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Upper canopy dieback and deadwood
160	<i>Quercus canariensis</i> Algerian oak	190mm	3m	8x6m	Mature	Fair	Fair	Fair	>10	Graft at base.
161	<i>Quercus canariensis</i> Algerian oak	546mm	7m	10x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Some lopped points. Upper canopy sparse.
162	<i>Quercus canariensis</i> Algerian oak	584mm	7m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Some lopped points. Upper canopy sparse.
163	<i>Quercus canariensis</i> Algerian oak	320mm	4m	8x6m	Mature	Fair/Good	Fair	Fair	>10	Competition with overhanging pines.
164	<i>Quercus canariensis</i> Algerian oak	339mm	4m	8x8m	Mature	Fair/Good	Fair	Fair	>10	Competition with overhanging pines.
165	<i>Quercus canariensis</i> Algerian oak	608mm	7m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Upper canopy sparse.
166	<i>Quercus canariensis</i> Algerian oak	497mm	6m	10x12m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Slight competition.
167	<i>Quercus canariensis</i> Algerian oak	325mm	4m	8x8m	Mature	Fair	Fair/Good	Fair/Good	>5	Competition and sparse canopy.
168	<i>Quercus canariensis</i> Algerian oak	601mm	7m	12x12m	Mature	Fair	Fair/Good	Fair/Good	>10	Severe possum damage to entire canopy.
169	<i>Eucalyptus camaldulensis</i> River Red gum	548mm	8m	10x8m	Mature	Fair/Good	Fair/Good	Fair/Good	>20	Some possum damage; possum box in upper canopy; within group of River Red gums
170	<i>Eucalyptus camaldulensis</i> River Red gum	561mm	8m	14x12m	Mature	Fair	Fair/Good	Fair/Good	>20	Possum damage to upper canopy; trunk lean however structurally sound; slightly sparse canopy

No.	Species	DBH	TPZ	H x W	Age	Health	Structure	Form	ULE	Comments
171	<i>Eucalyptus camaldulensis</i> River Red gum	306mm	6m	12x8m	Mature	Fair/Good	Fair	Fair/Good	>20	On lean to south, with much of canopy on south side; bifurcated at 2m with some included bark; canopy slightly sparse
172	<i>Prunus illicifolia</i> Holly-leaved cherry	Multi	3m	6x8m	Mature	Fair/Good	Fair/Good	Fair/Good	>10	Multiple leaders at base; good canopy form
173	<i>Eucalyptus camaldulensis</i> River Red gum	187mm (1 leader)	4m	8x6m	Early Maturity	Fair	Fair	Fair/Good	>20	Bifurcated at <1m; possum damage to canopy – however new growth present

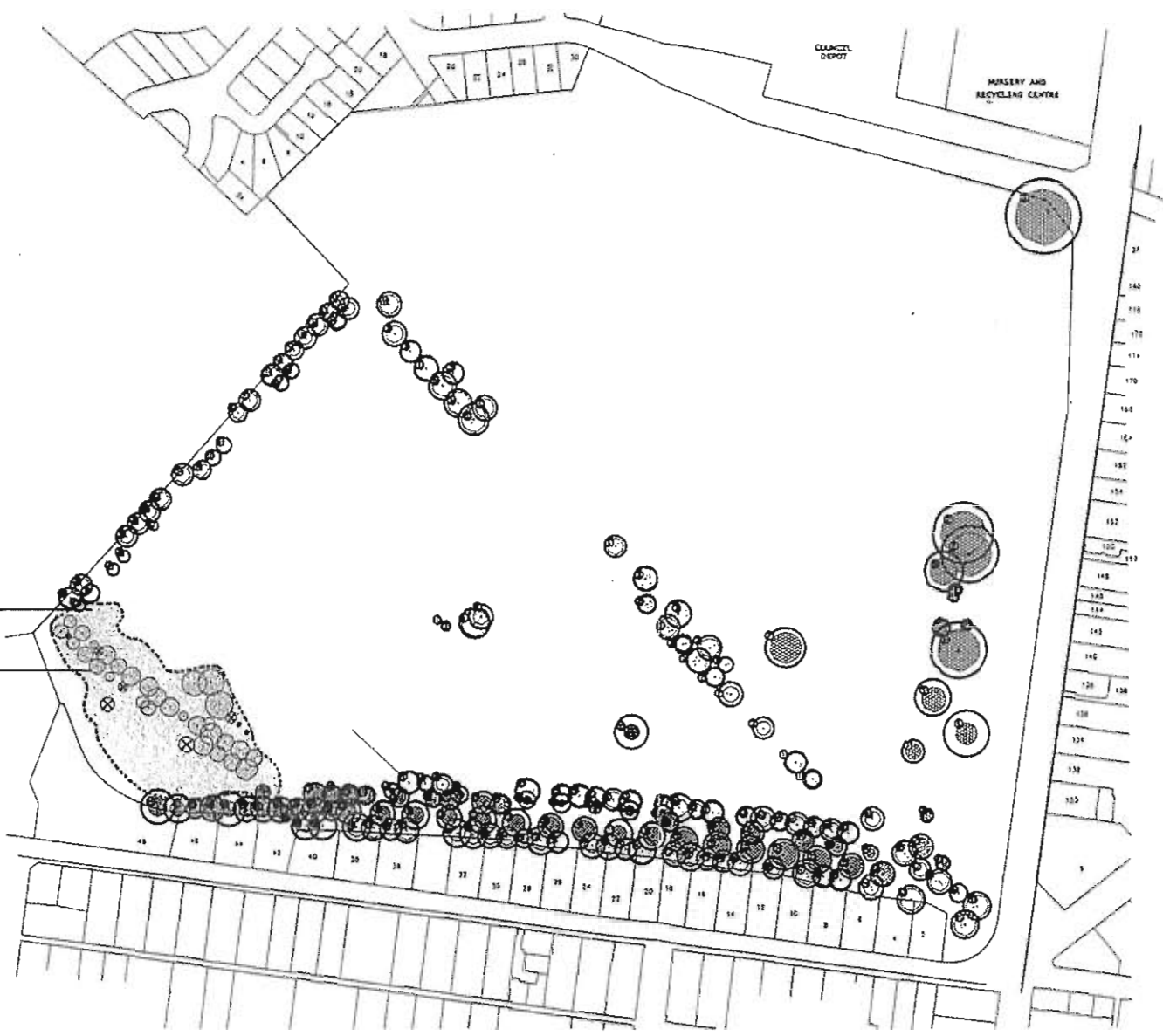
TPZ= Tree Protection Zone – The distance from the trunk (radius) in meters to allow for the protection of the tree. This area should be appropriately fenced during the entire construction phase.

APPENDIX 2

Tree Protection Guidelines

1. All trees to be retained shall be identified by the builder and Landscape architect at the commencement of works. The appointed trees shall be fenced off with sturdy fencing. This will be constructed to a minimum height of 1.2- 1.5 m using chain mesh strung between star pickets. The aim is to create an 'exclusion zone' beneath these trees. This fence will deter the entry of heavy equipment, vehicles, workers and/or the public into this Tree Protection Zone.
2. The exclusion zone shall be established at or near the perimeter of the tree branches (i.e., the further away from the trunk the better the protection offered).
3. Where a root diameter of 20mm or greater is encountered during site works, these shall be cleanly pruned by hand, but never torn from the ground by machinery.
4. An arboricultural company with membership of the Arboricultural Association of Australia shall carry out works to the Australian Standard -AS 4373-1996, and shall be used to undertake all root and branch pruning requirements. Throughout building works they shall also undertake regular inspections of trees and carry out remedial works as required to ensure trees retain good health and vigour. Such works shall include but not be limited to irrigation, feeding, aeration, mulching and 'dead-wooding'.
5. Should services pass through the root zone of trees to be retained on the site, then they should be located in trenches augured beneath the root zone, i.e. at a minimum depth of 600mm.
6. During the construction process, all areas beneath the canopies of the trees to be retained, should be covered by a 100mm layer of coarse wood chip or other like material. This layer will help minimise the affects of compaction. If temporary access is required through a root zone area, this should be carried out using sheets of heavy plywood, or like protection, but this should not be considered for long term use.
7. There will be no open trenching in the root zone of trees. This also implies no strip footings. Pier and beam construction would be essential in Tree Protection Zones.
8. Any services required to be installed underground will be bored and utility authorities should make use of a common trench where possible. This is the responsibility of the site foreman.
9. No fuel, oil dumps or chemicals shall be allowed in or stored on the Tree Preservation Zone. The servicing and refueling of equipment and vehicles should be carried out away from the root zones.
10. No storage of materials, equipment or temporary buildings will take place over the root zone of any trees.
11. No fixtures of any sort shall be attached to any tree for any reason.
12. If damage of any sort should occur to any tree or large shrub on site, the appointed arborist should be contacted to take immediate remedial action.
13. Prior to the commencement of building works on site the appointed builder and staff shall have an hour long briefing on Tree Protection on-site along with the application of these Tree Protection Guidelines.





Area of indigenous
Woolly grass (*Acrostichum* sp.)
with south-west plantation

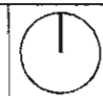
"South-West Plantation" containing
a number of mature, largely coniferous trees

- LEGEND**
- *Cupressus torulosa*
British cypress
 - *Eucalyptus camaldulensis*
Tower Red gum
 - *Ficus macrophylla*
Monkton bay fig
 - *Pinus muricata*
Blush pine
 - *Prunus illinoensis*
Holly-leaved cherry
 - *Quercus petraea*
Algerian oak
 - *Ulmus procera*
English elm
 - ▨ South-West Plantation
 - Tree Protection Zone
 - ⊙ Tree Number
(refer Tree Survey)

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PROJECT
Kew Residential Services
Princess Street, Kew

DRAWING
Significant Tree Locations

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