

REFERRAL RESPONSE – TREES & LANDSCAPING

FILE NO: DA 477/2019/1

ADDRESS: 30 Alma Street PADDINGTON 2021

PROPOSAL: First stage of the development of White City for a multi-purpose sports centre and registered club facilities including site remediation

FROM: David Grey - Tree & Landscape Officer

TO: Mr M Moratelli

I refer to the following documents received for this report:

- Statement of Environmental Effects, prepared by Sutherland and Associates, dated December 2019 (amended)
- Survey Plan No. 15685, drafted by Dunlop Thorpe, dated 20 November 2014
- Architectural Drawing No. 1001 - 1006, 2010 – 2013, 2050 – 2059, 3001 – 3005, 3101 – 3104, 10006 – 10008, 10016, 10017, drawn by Cottee Parker , dated 8 May 2020
- Stormwater Drainage Plan No. C 04, C 05, drawn by M & G Consulting, dated 5 December 2019
- Arboricultural Impact Assessment Report, written by Tree Wise Men, dated April 2019
- Arborists Root Mapping Report, prepared by Tree Wise Men, dated March 2020
- Arborist Response (Comments), prepared by Tree Wise Men, dated 22 June 2020
- Landscape Plan No. DA-1846-01 to DA-1846-16, designed by Sturt Noble, dated 4 December 2019
- Landscape Plan Amendments No. DA-1846-17 B, DA-1846-18 B, DA-1846-19 A, DA-1846-20 A, prepared by Sturt Noble, dated 26 May 2020
- Landscape Design Response, prepared by Guy Sturt, dated 26 May 2020

Supplied materials reviewed 13 August 2020

Relevant Control:

- Woollahra Local Environment Plan 2014
- Woollahra Development Control Plan 2015

- Woollahra Street Tree Master Plan 2014 – Part 1, Part 2 (Precinct Plans), Part 3 (appendices)
- The comments and recommendations within this Referral Response have taken into consideration the guidelines established within Australian Standard AS 4373 – Pruning of amenity trees and Australian Standard AS 4970 – Protection of trees on development sites

SUMMARY OF ISSUES

- Removal of majority of existing trees from site
- Retention of Council tree in Glenmore Road is recommended.
- Electricity sub-station adjacent to Tree 114
- Heritage Canary Island Palms Alma Street

COMMENTS

Removal of majority of existing trees from site

Rationalisation of this element of the proposal has been provided by the landscape designer Mr Guy Sturt in his Landscape Design Response of 26 May 2020.

Attempts to retain existing trees on development sites frequently fails or results in compromised trees due to excavation and construction impacts, particularly where the development is over long periods of time. In my experience, a more assured successful landscape outcome with development proposals of this scale and duration is to generally allow for higher numbers of removals of existing trees. However, this latitude must be compensated by substantial replacement tree plantings.

This high level of replacement planting is now the case as is proposed in the recently supplied modified Landscape Plans. Ninety (90) advanced native trees of large and very large (750 litre) pot sizes are proposed for planting. Emphasis has been placed on screening of Sydney Grammar School and the native environment riparian zone of Rushcutters Creek.

Deep soil volumes on the eastern boundary of Sydney Grammar School have been greatly increased to permit expanded tree planting.

I recommend Mr Sturts position.

Retention of Council Tree 101

The proposed construction of a vehicle exist crossing to the eastern end of Glenmore Road has the potential to impact on two large Council Lemon-scented Gum trees (Tree 100 & Tree 101).

The reporting arborist has undertaken a root mapping excavation along the margins of the proposed crossing. Subsequently, the removal of Tree 101 has been recommended by the reporting arborist. Tree & Landscape section of Council places a high landscape value on this tree and strongly prefers that this tree is retained. The reporting arborist has cited the necessity

to sever an 80mm root of the tree and relocation of the adjacent kerbside stormwater pit as necessitating the removal of the tree.

This matter has been discussed within the Tree & Landscape section and it has been concluded that there is a fair likelihood that these works can be undertaken whilst retaining Tree 101. Conditions have been recommended calling for protective measures and site supervision and assessment by a qualified arborist whilst works are undertaken adjacent to Tree 100 and Tree 101. Because of the potential for the tree to decline or ultimately require removal, it is recommended that no monetary bond is placed on Tree 101.

Electricity Substation

The supplied architectural drawing A2057 indicates the installation of an electricity substation at the extreme south west corner of the site on the Glenmore Road frontage, adjacent to Tree 114 and Tree 115. The substation appears to be constructed on piers. Tree 114 is a high landscape value Lacebark Kurrajong whilst Tree 115 is a small and recently planted Port Jackson Fig. I have recommended a condition that would permit the removal of Tree 115 which would allow for the relocation of the substation to the north east, at as great a distance as is practical from Tree 114.

Heritage Listed Canary Island Date Palms Alma Street

Seven mature specimens of Canary Island Date Palm stand within the central road reserve of Alma Street, at the approach to the 30 Alma Street complex. All seven palms are listed as Heritage Items in the Woollahra Local Environment Plan 2014.

It is anticipated that there will be a high number of heavy construction vehicle movements in this section of narrow roadway over an extended period of time. Additionally, this roadway is frequently congested by vehicle movements associated with the Sydney Grammar School. Consequently, I have recommended the imposition of a monetary bond and the installation of trunk protection on these palm trees to ensure that adequate care is taken with the movement of demolition and construction vehicle adjacent to the trees.

RECOMMENDATIONS

Council's Tree and Landscape Officer has determined that the development proposal is satisfactory in terms of tree preservation and landscaping, subject to compliance with the following Conditions of Consent.

CONDITIONS OF CONSENT

Please note that the standard conditions of consent are generally modified by the Technical Services Department to suit a particular development application. Please ensure all Technical Services conditions of consent are cut and pasted from this document only, and not inserted as standard conditions using the automatically generated (F3) function

A. General Conditions

A.1 Tree Preservation & Approved Landscaping Works

All landscape works shall be undertaken in accordance with the approved landscape plan, arborist report, tree management plan and transplant method statement as applicable.

- a) The following trees shall be retained

- Trees on Private Land

Council Ref No.	Species	Location	Dimension (metres)
4	<i>Phoenix canariensis</i> (Canary Island Date palm)	South west corner – Adj to Sydney Grammar North boundary	9 x 6
17	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street entrance – West boundary	7x 6
18	<i>Jacaranda mimosifolia</i> (Jacaranda)	Carpark – West boundary	9 x 9
37	<i>Citharexylum spinosum</i> (Fiddlewood tree)	Rushcutters Creek - East	12 x 10
94	<i>Hibiscus rosa-sinensis</i> (Rose of China)	NE corner - Rushcutters Creek	5 x 3
95	<i>Tibouchina sp.</i> (Lasiandra)		4 x 3
96	<i>Tibouchina sp.</i> (Lasiandra)		4 x 3
108	<i>Jacaranda mimosifolia</i> (Jacaranda)	South east corner – Glenmore Road frontage	5 x 4
109	<i>Jacaranda mimosifolia</i> (Jacaranda)		9 x 12
112	<i>Lophostemon confertus</i> (Brush Box)	South west corner – Glenmore Road frontage	17 x 12
113	<i>Cinnamomum camphora</i> (Camphor Laurel)		20 x 15
114	<i>Brachychiton discolor</i> (Lacebark Kurrajong)		18 x 12

- Trees on Council Land

Council Ref No.	Species	Location	Dimension (metres)	Tree Value
81	<i>Eucalyptus botryoides</i> (Bangalay)	Glenmore Road verge - Centre	25 x 18	\$5000
82	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		6 x 4	\$2000
83	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		6 x 4	\$2000
84	<i>Callistemon viminalis</i> (Weeping Bottlebrush)	Glenmore Road verge - Centre	7 x 5	\$2000
85	<i>Eucalyptus botryoides</i> (Bangalay)		24 x 16	\$5000
86	<i>Corymbia citriodora</i> (Lemon-scented Gum)		24 x 20	\$5000
87	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - West	8 x 6	\$2000
88	<i>Eucalyptus botryoides</i> (Bangalay)		25 x 20	\$5000
89	<i>Corymbia citriodora</i> (Lemon-scented Gum)		20 x 18	\$5000
91	<i>Callistemon viminalis</i> (Weeping Bottlebrush)	Glenmore Road verge - West	6 x 5	\$2000
92	<i>Corymbia citriodora</i> (Lemon-scented Gum)		20 x 20	\$5000
98	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - East	12 x 10	\$2000
99	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		6 x 4	\$2000
100	<i>Corymbia citriodora</i> (Lemon-scented Gum)		26 x 20	\$5000
101	<i>Corymbia citriodora</i> (Lemon-scented Gum)		26 x 16	NIL

102	<i>Corymbia citriodora</i> (Lemon-scented Gum)		26 x 16	\$5000
110	<i>Tristaniopsis laurina</i> (Water gum)	Glenmore Road verge - West	2 x 2	\$500
111	<i>Tristaniopsis laurina</i> (Water gum)		2 x 2	\$500
117	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street road reserve - North	12 x 6	\$5000
118	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street road reserve - North	12 x 6	\$5000
119	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street road reserve - Centre	12 x 6	\$5000
120	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street road reserve - Centre	12 x 6	\$5000
121	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street road reserve - Centre	12 x 6	\$5000
122	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street road reserve - South	10 x 6	\$5000
123	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street road reserve - South	14 x 6	\$5000

Note: The tree/s required to be retained should appear coloured green on the construction certificate plans.

- b) The following trees shall be transplanted and successfully established in the location(s) indicated on the approved landscape plan:

Council Ref No.	Species	Current Location	Dimension (metres)
4	<i>Phoenix canariensis</i> (Canary Island Date palm)	South west corner – Adj to Sydney Grammar North boundary	9 x 6

Note: The tree/s required to be retained shall appear coloured yellow on the construction certificate plans.

- c) The following trees may be removed:

Council Ref No.	Species	Location	Dimension (metres)
1	<i>Phoenix canariensis</i> (Canary Island Date palm)	South west corner – Adj to Sydney Grammar North boundary	7 x 6
2	<i>Lophostemon confertus</i> (Brush Box)		11 x 10
3	<i>Lophostemon confertus</i> (Brush Box)		12 x 10
5*	<i>Olea europea</i> var. <i>africana</i> (African Olive)		5 x 5
6	<i>Casuarina glauca</i> (Swamp She-oak)		16 x 10
7*	<i>Celtis sinensis</i> (Chinese Nettle)		9 x 10
8	<i>Cinnamomum camphora</i> (Camphor Laurel)		14 x 10
9	<i>Cinnamomum camphora</i> (Camphor Laurel)		14 x 12
10*	<i>Cinnamomum camphora</i> (Camphor Laurel)		7 x 8
11	<i>Pittosporum undulatum</i> (Native Daphne)		6 x 6
12*	<i>Celtis sinensis</i> (Chinese Nettle)		9 x 8
13	<i>Casuarina glauca</i> (Swamp She-oak)		16 x 10

14	<i>Morus nigra</i> (Mulberry tree)		6 x 5
15	<i>Morus nigra</i> (Mulberry tree)		10 x 6
16*	<i>Olea europea</i> var. <i>africana</i> (African Olive)		8 x 6
19	<i>Liquidambar styraciflua</i> (Liquidambar)	Centre – New Soccer Field grandstand	8 x 8
20	<i>Sapium sebiferum</i> (Chinese Tallow tree)		10 x 8
21	<i>Sapium sebiferum</i> (Chinese Tallow tree)		11 x 8
25	<i>Celtis sinensis</i> (Chinese Nettle)	South east corner – Glenmore Road frontage	14 x 10
26	<i>Jacaranda mimosifolia</i> (Jacaranda)		14 x 10
27	<i>Chamaecyparis lawsoniana</i> (Lawson Cypress)		9 x 8
28*	<i>Olea europea</i> var. <i>africana</i> (African Olive)		14 x 8
29*	<i>Olea europea</i> var. <i>africana</i> (African Olive)		11 x 10
30	<i>Olea europea</i> var. <i>africana</i> (African Olive)		9 x 6
35	<i>Ficus rubiginosa</i> (Port Jackson Fig)	Centre – North east corner of existing office building	5 x 5
36	<i>Murraya paniculata</i> (Mock Orange)	North boundary of Maccabia tennis courts	3 x 2
38*	<i>Celtis sinensis</i> (Chinese Nettle)	Rushcutters Creek - East	8 x 5
39	<i>Syzygium</i> sp. (Lillypilly)	Rushcutters Creek - Centre	7 x 6
40	<i>Casuarina cunninghamiana</i> (River She-oak)		20 x 15
41*	<i>Celtis sinensis</i> (Chinese Nettle)		6 x 6
42	<i>Casuarina cunninghamiana</i> (River She-oak)		18 x 8
43	<i>Casuarina cunninghamiana</i> (River She-oak)		11 x 6
44*	<i>Celtis sinensis</i> (Chinese Nettle)		5 x 4
45	<i>Liquidambar formosana</i> (Chinese Liquidambar)		13 x 12
46*	<i>Celtis sinensis</i> (Chinese Nettle)		7 x 5
47	<i>Phoenix canariensis</i> (Canary Island Date palm)		5 x 6
48*	<i>Celtis sinensis</i> (Chinese Nettle)	Rushcutters Creek – West	9 x 7
49*	<i>Celtis sinensis</i> (Chinese Nettle)		9 x 7
50*	<i>Celtis sinensis</i> (Chinese Nettle)		7 x 5
51	<i>Melaleuca bracteata</i> (Black Tea tree)		6 x 5
53	<i>Phoenix canariensis</i> (Canary Island Date palm)		5 x 6
54	<i>Syzygium</i> sp. (Lillypilly)		9 x 7
55*	<i>Celtis sinensis</i> (Chinese Nettle)		5 x 3
56	<i>Cinnamomum camphora</i> (Camphor Laurel)	South west corner – Adj to Sydney Grammar East boundary	10 x 8
57	<i>Trachycarpus fortunei</i> (Chinese Windmill palm)		5 x 4
58*	<i>Syagrus romanzoffiana</i> (Cocos palm)		15 x 4

59*	<i>Syagrus romanzoffiana</i> (Cocos palm)		15 x 4
60*	<i>Syagrus romanzoffiana</i> (Cocos palm)		15 x 4
61	<i>Celtis sinensis</i> (Chinese Nettle)		13 x 8
62	<i>Celtis sinensis</i> (Chinese Nettle)		14 x 10
63	<i>Celtis sinensis</i> (Chinese Nettle)		14 x 10
64	<i>Celtis sinensis</i> (Chinese Nettle)		15 x 10
65	<i>Cotoneaster sp.</i> (Cotoneaster)		6 x 5
66	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		6 x 5
67	<i>Murraya paniculata</i> (Mock Orange)		6 x 5
68	<i>Celtis sinensis</i> (Chinese Nettle)		12 x 10
69	<i>Celtis sinensis</i> (Chinese Nettle)		13 x 10
70	<i>Celtis sinensis</i> (Chinese Nettle)		15 x 10
71	<i>Celtis sinensis</i> (Chinese Nettle)		15 x 10
72*	<i>Syagrus romanzoffiana</i> (Cocos palm)		9 x 6
73	<i>Celtis sinensis</i> (Chinese Nettle)		12 x 10
74	<i>Celtis sinensis</i> (Chinese Nettle)		14 x 11
75	<i>Celtis sinensis</i> (Chinese Nettle)		14 x 11
76*	<i>Syagrus romanzoffiana</i> (Cocos palm)		7 x 6
77	<i>Celtis sinensis</i> (Chinese Nettle)		10 x 9
78	<i>Cupressus macrocarpa</i> (Monterey Cypress)	Heritage Arches	9 x 6
79	<i>Cupressus spp</i> (Cypress pine)		9 x 6
93	<i>Murraya paniculata</i> (Mock Orange)	North west corner	5 x 5
97*	<i>Celtis sinensis</i> (Chinese Nettle)	Rushcutters Creek - East	8 x 6
104	<i>Jacaranda mimosifolia</i> (Jacaranda)	South east corner – Glenmore Road frontage	11 x 10
105	<i>Jacaranda mimosifolia</i> (Jacaranda)		7 x 7
106	<i>Celtis sinensis</i> (Chinese Nettle)		12 x 10
107	<i>Jacaranda mimosifolia</i> (Jacaranda)		10 x 8
115	<i>Ficus rubiginosa</i> (Port Jackson Fig)	South west corner – Glenmore Road frontage	4 x 3

Note: Tree/s to be removed shall appear coloured red on the construction certificate plans.

*This species is exempt from the WMC DCP Chapter E.3 - Tree Management and can be removed without consent.

- d) The following trees shall be pruned in accordance with *Australian Standard Pruning of Amenity Trees* (AS 4373) and *Workcover NSW Code of Practice*

Amenity Tree Industry, to the minimum extent necessary to provide clearance to the new development:

Council Ref No.	Species	Location	Approved pruning (extent of pruning)
100	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - East	Root pruning
101	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - East	Root pruning

Note: The tree/s required to be pruned should appear coloured blue on the construction certificate plans.

A.2 Approved Plans and supporting documents

Reference	Description	Author/Drawn	Date(s)
DA-1846-01 to DA-1846-16	Landscape Plan	Sturt Noble	4 Dec. 2019
DA-1846-17 B, DA-1846-18 B, DA-1846-19 A, DA-1846-20 A	Landscape Plans	Sturt Noble	26 May 2020
	Landscape Design Response	Guy Sturt	26 May 2020
	Arboricultural Impact Assessment Report	Tree Wise Men	April 2019
	Arborists Root Mapping Report	Tree Wise Men	March 2020
	Arborist Response (Comments)	Tree Wise Men	22 June 2020

B. Conditions which must be satisfied prior to the demolition of any building or construction

B.1 Establishment of Tree Protection Zone (TPZ) Fence

Tree Protection Zones shall be established around all trees to be retained and in accordance with Section 4 of the *Australian Standard Protection of Trees on Development Sites* (AS 4970- 2009). Tree protection zones must also comply with the following requirements;

a) Tree Protection Zone areas

Council Ref No.	Species	Tree Location	Fence Radius from Centre of Trunk (Metres)
17	<i>Phoenix canariensis</i> (Canary Island Date palm)	Alma Street entrance – West boundary	2m
18	<i>Jacaranda mimosifolia</i> (Jacaranda)	Carpark – West boundary	2m
37	<i>Citharexylum spinosum</i> (Fiddlewood tree)	Rushcutters Creek	Fence in common with Tree 94
81	<i>Eucalyptus botryoides</i> (Bangalay)	Glenmore Road verge - Centre	Fence in common

82	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		
83	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		
84	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		
85	<i>Eucalyptus botryoides</i> (Bangalay)	Glenmore Road verge - Centre	
86	<i>Corymbia citriodora</i> (Lemon-scented Gum)		
87	<i>Corymbia citriodora</i> (Lemon-scented Gum)		
88	<i>Eucalyptus botryoides</i> (Bangalay)	Glenmore Road verge - West	Fence in common
89	<i>Corymbia citriodora</i> (Lemon-scented Gum)		
91	<i>Callistemon viminalis</i> (Weeping Bottlebrush)	Glenmore Road verge - West	Fence in common
92	<i>Corymbia citriodora</i> (Lemon-scented Gum)		
94	<i>Hibiscus rosa-sinensis</i> (Rose of China)	NE corner - Rushcutters Creek	Fence in common with Tree 37
95	<i>Tibouchina sp.</i> (Lasiandra)	NE corner - Rushcutters Creek	2m
96	<i>Tibouchina sp.</i> (Lasiandra)	NE corner - Rushcutters Creek	2m
98	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - East	Fence in common with Tree 81
99	<i>Callistemon viminalis</i> (Weeping Bottlebrush)		
100	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - East	Fence in common
101	<i>Corymbia citriodora</i> (Lemon-scented Gum)		
102	<i>Corymbia citriodora</i> (Lemon-scented Gum)		
108	<i>Jacaranda mimosifolia</i> (Jacaranda)	South east corner – Glenmore Road frontage	Fence in common
109	<i>Jacaranda mimosifolia</i> (Jacaranda)		
110	<i>Tristaniopsis laurina</i> (Water gum)	Glenmore Road verge - West	1m
111	<i>Tristaniopsis laurina</i> (Water gum)	Glenmore Road verge - West	Fence in common with Tree 91

112	<i>Lophostemon confertus</i> (Brush Box)	South west corner – Glenmore Road frontage	Fence in common
113	<i>Cinnamomum camphora</i> (Camphor Laurel)		
114	<i>Brachychiton discolor</i> (Lacebark Kurrajong)		

Note: Where this condition relates to street trees and the fence cannot be placed at the specified radius, the fencing shall be positioned so that the entire verge (nature strip) area in front of the subject property, excluding existing driveways, footpaths and bus stops is protected.

Note: Where this condition relates to trees on private property the radial distance of fencing shall be positioned only within the subject property.

- b) Tree Protection Zones shall be fenced with a 1.8 metre high chainmesh or weldmesh fence and secured to restrict access. The fence shall be established prior to any materials being brought onto the site and before the commencement of works including demolition. The area within the fence shall be mulched and maintained to a depth of 75mm. The soil within the TPZ shall be kept in a moist condition for the duration of the construction works. Unless approved by the site arborist there shall be no access within the TPZ.
- c) Trunk protection shall be installed around the trunks of the following trees:

Council Ref No.	Species
117	<i>Phoenix canariensis</i> (Canary Island Date palm)
118	<i>Phoenix canariensis</i> (Canary Island Date palm)
119	<i>Phoenix canariensis</i> (Canary Island Date palm)
120	<i>Phoenix canariensis</i> (Canary Island Date palm)
121	<i>Phoenix canariensis</i> (Canary Island Date palm)
122	<i>Phoenix canariensis</i> (Canary Island Date palm)
123	<i>Phoenix canariensis</i> (Canary Island Date palm)

Trunk protection shall consist of a padding material such as hessian or thick carpet underlay wrapped around the trunk. Hardwood planks (50mm x100mm or similar) shall be placed over the padding and around the trunk of the tree at 150mm centres. The planks shall be secured with 8 gauge wire at 300mm spacing. Trunk protection shall extend a minimum height of 5 metres or to the maximum possible length permitted by the first branches.

- d) A sign identifying the Tree Protection Zone shall be erected on each side of the protection fence indicating the existence of a TPZ. Signage must be visible from within the development site.
- e) No excavation, construction activity, grade changes, storage of materials, stockpiling, siting of works sheds, preparation of mixes or cleaning of tools is permitted within Tree Protection Zones, unless specified in Condition B.2 of this consent.
- f) Temporary access within the TPZ for pedestrian and machinery movements shall only be permitted with the approval of the site arborist or unless specified in this consent.
- g) The site foreman must be made aware of all tree protection requirements associated with these conditions of consent by the project arborist. Any subsequent site

personnel and contractors to the site must be made aware of all tree protection requirements by the site foreman.

- h) The project arborist shall provide written certification of compliance with the above condition.

B.2 Permissible work within Tree Protection Zones

The following works are permissible within the Tree Protection Zone:

Council Ref No.	Species	Radius from Trunk (metres)	Approved works
100	<i>Corymbia citriodora</i> (Lemon-scented Gum)	3m	Excavation and construction of driveway crossing
101	<i>Corymbia citriodora</i> (Lemon-scented Gum)	3m	Excavation and construction of driveway crossing. Removal of stormwater pit
114	<i>Brachychiton discolor</i> (Lacebark Kurrajong)	3m	Construction of electricity substation

The project arborist shall provide written certification of compliance with the above condition.

B.3 Demolition and Construction Management Plan

A Demolition and Construction Management Plan shall be reviewed and certified by the Project Arborist that appropriate tree protection measures have been accounted for.

This Demolition and Construction Management Plan is to provide detail of all demolition and construction works that may impact Council Tree 85, 86, 88 & 89 standing on Glenmore Road verge adjacent to existing southern grandstand.

B.4 Arborists Documentation and Compliance Checklist

The site arborist shall provide written certification that all tree protection measures and construction techniques relevant to this consent have been complied with. Documentation for each site visit shall include:

- A record of the condition of trees to be retained prior to and throughout development;
- Recommended actions to improve site conditions and rectification of non-compliance; and
- Recommendations for future works which may impact the trees

All compliance certification documents shall be kept on site by the Site Foreman.

As a minimum the following intervals of site inspections must be made:

Stage of arboricultural inspection	Compliance documentation and photos shall be included
Installation of tree protection fencing	Compliance with tree protection measures

Basement excavations and construction adjacent to Tree 85, 86, 88 and 89	Condition of any exposed roots.
Demolition of stormwater pit adjacent to Tree 101	Condition of any exposed roots
Driveway crossing excavations adjacent to Tree 100 & Tree 101	Assess any impacts to root systems by excavations and removal of stormwater pit. Assess ongoing viability of Tree 101 and advise property owners
Inspection of pier holes adjacent to Tree 114	Piers positioned to avoid the severance of and damage to roots greater than 50mm
Removal of Tree Protection Fencing	Trees remain in good condition or remedial action required.

Inspections and compliance documentation shall be made by an arborist with AQF Level 5 qualifications.

Additional site visits shall be made when required by site arborist and/or site foreman for ongoing monitoring/supervisory work.

C. Conditions which must be satisfied prior to the issue of any construction certificate

C.1 Payment of Security, Levies and Fees (S80A(6) & S94 of the Act, Section 608 of the Local Government Act 1993)

Description	Amount	Indexed	Council Fee Code
LONG SERVICE LEVY under Building and Construction Industry Long Service Payments Act 1986			
Tree Damage Security Deposit – Making good any damage caused to any public tree as a consequence of the doing of anything to which the consent relates.	\$90,000.00	No	T114
INSPECTION FEES under section 608 of the Local Government Act 1993			
Tree Inspection Fee	\$200.00	No	T95

D. Conditions which must be satisfied prior to the commencement of any development work

NIL

E. Conditions which must be satisfied during any development work

E.1 Tree Preservation

All persons must comply with Council's Development Control Plan (DCP) 2015, Chapter E.3 Tree Management other than where varied by this consent. The DCP applies to any tree with a height greater than 5 metres or a diameter spread of branches greater than 3 metres.

General Protection Requirements

- a) The TPZ must be maintained during all development work unless otherwise specified within these conditions of consent.

- b) Excavation must cease where tree roots with a diameter exceeding 50mm are exposed. The *principal contractor* must procure an inspection of the exposed tree roots by an arborist with a minimum AQF Level 5 qualification. Excavation must only recommence with the implementation of the recommendations of the arborist.
- c) Where there is damage to any part of a tree the *principal contractor* must procure an inspection of the tree by a qualified arborist immediately. The *principal contractor* must immediately implement treatment as directed by the arborist. The arborist is to supply a detailed report to the appointed certifier.

Note: Trees must be pruned in accordance with *Australian Standard AS 4373 "Pruning of Amenity Trees"* and *WorkCover NSW Code of Practice Amenity Tree Industry*.

E.2 Replacement/Supplementary trees which must be planted

Any replacement or supplementary tree shall be grown in accordance with Tree stock for landscape use (AS 2303:2018). The replacement tree shall be planted in a *deep soil landscaped area* and maintained in a healthy and vigorous condition. If the replacement tree is found to be faulty, damaged, dying or dead before it attains a size whereby it is protected by Council's Tree Preservation Order, it must be replaced with another of the same species which complies with the criteria outlined below.

Species/Type	Planting/Location	Container Size/Size of Tree (at planting)	Minimum Dimensions at Maturity (metres)
7 x <i>Alphitonia excelsa</i> (Red Ash)	As indicated on Sturt Noble Landscape Plan DA-1846-17B & DA-1846-18B	100 litre	20m
15 x <i>Backhousia myrtifolia</i> (Grey Myrtle)		100 litre	7m
12 x <i>Brachychiton acerifolius</i> (Illawarra Flame tree)		750 litre	12m
4 x <i>Cupaniopsis anacardioides</i> (Tuckeroo)		750 litre	12m
10 x <i>Callicoma serratifolia</i> (Black Wattle)		100 litre	10m
13 x <i>Elaeocarpus reticulatus</i> (Blueberry Ash)		400 litre	12m
6 x <i>Glochidion ferdinandii</i> (Cheese tree)		400 litre	12m
3 x <i>Livistona australis</i> (NSW Cabbage Tree palm)		75 litre	20m
20 x <i>Syzygium paniculatum</i> (Magenta Cherry)		400 litre	12m

The project arborist shall document compliance with the above condition.

E.3 Hand excavation within tree root zones

Excavation undertaken within the specified radius from the trunks of the following trees shall be hand dug.

Council Ref No.	Species	Location	Radius from centre of trunk
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			(metres)
100	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - West	3m
101	<i>Corymbia citriodora</i> (Lemon-scented Gum)	Glenmore Road verge - West	3m
114	<i>Brachychiton discolor</i> (Lacebark Kurrajong)	South west corner – Glenmore Road frontage	3m

Small hand tools such as mattocks or using compressed air or water jetting only shall be used. Roots with a diameter equal to or in excess of 50mm shall not be severed or damaged unless approved in writing by the project arborist.

Mechanical excavation is permitted beyond this radius when root pruning by hand along the perimeter line is completed. Exposed roots to be retained shall be covered with mulch or a geotextile fabric and kept in a moist condition and prevented from drying out.

All root pruning must be undertaken in accordance with the Australian Standard 4373 “Pruning of Amenity Trees” and carried out by a qualified Arborist (minimum qualification of Australian Qualification Framework Level 5 or recognised equivalent).

The project arborist shall document compliance with the above condition.

E.4 Footings in the vicinity of trees

Footings for any structure within the specified radius from the trunks of the following trees shall be supported using an isolated pier and beam system.

Council Ref No.	Species	Location	Radius from centre of trunk (metres)
114	<i>Brachychiton discolor</i> (Lacebark Kurrajong)	South west corner – Glenmore Road frontage	3m

Excavations for installation of piers shall be located so that no tree root with a diameter equal to or in excess of 50mm is severed or damaged. The smallest possible area shall be excavated which allows construction of the pier. The beam is to be placed a minimum of 100mm above ground level and is to be designed to bridge all tree roots with a diameter equal to or in excess of 50mm.

The project arborist shall document compliance with the above condition.

F. Conditions which must be satisfied prior to any occupation or use of the building (Part 4A of the Act and Part 8 Division 3 of the Regulation)

F.1 Amenity Landscaping

The *owner* or *principal contractor* must install all approved amenity landscaping (screen planting, soil stabilisation planting, etc.) prior to any occupation or use of the site.

Note: This condition has been imposed to ensure that the environmental impacts of the development are mitigated by approved landscaping prior to any occupation of the development.

A handwritten signature in black ink, appearing to read 'D. Grey', with a stylized, cursive script.

David Grey
Tree Officer