

## **REFERRAL RESPONSE – TREES & LANDSCAPING**

**FILE NO:** DA 528/2016/1

**ADDRESS:** 13-15A Coolong Road VAUCLUSE 2030

**PROPOSAL:** Construction of a new single dwelling house including a swimming pool, ancillary structures & associated landscaping and siteworks

**FROM:** Simone Woodman - Tree Officer

**TO:** Mr D Booth

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**I refer to the following documents received for this report:**

- Survey Plan Drawing No.s 58315001A: 58315002A, 58315003A, 58315004A, drafted by Hill & Blume, dated 20/05/2016
- Architectural Drawing No.s A.02.01, A.02.02, A.02.03, A.02.04, A.02.05, A.02.06, A.02.07, A.02.09, A.02.10, drawn by Corona Projects, dated 16/11/2016
- Site stormwater drainage Plan Drawing No.s H-DA-01/C, H-DA-02/C, H-DA-03/C drawn by ITM Design, dated 03/04/2017
- Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016
- Landscape Plan Drawing No.s MB\_CR\_01/B, MB\_CR\_11/B, MB\_CR\_30/B designed by Myles Baldwin Design, dated 18/11/2016 and Landscape Plan Drawing No. MB\_CR\_10/D, designed by Myles Baldwin Design, dated 21/03/2017

A site inspection was carried out on: 21 December 2016.

**Relevant Control:**

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

- Retention of the most significant trees in terms of streetscape contribution.
- Removal of small trees or exempt species.
- Extensive replacement tree planting as part of the submitted landscape plan.

## COMMENTS

In terms of tree management and landscaping the above development proposal includes the retention of the most significant trees located across the four subject properties in terms of streetscape. Additionally all trees located within the Council verge in front of the subject properties are proposed for retention. Existing trees proposed for removal in the submitted Arboricultural Impact Assessment Report are either small in size or exempt from Council's Tree Management Development Control plan.

The submitted landscape plan proposes extensive replacement tree planting of super advanced size.

## 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)
T2	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	In accordance with Appendix A – Tree Location Plan of the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016	10 x 4
T6	<i>Howea forsteriana</i> (Kentia palm)		5 x 2
T10	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)		18 x 12

- Trees on Council Land

Council Ref No.	Species	Location	Dimension (metres)	Tree Value
T15	<i>Eucalyptus tereticornis</i> (Forest Red Gum)	In accordance with Appendix A – Tree Location Plan of the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016	11 x 4	\$7000.00
T16	<i>Banksia integrifolia</i> (Coastal Banksia)		9 x 6	\$5000.00
G17	3 x <i>Callistemon viminalis</i> (Weeping Bottlebrush)		9 x 6	\$5000.00

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

b) The following trees may be removed:

Council Ref No.	Species	Location	Dimension (metres)
T1	<i>Ulmus parvifolia</i> (Chinese Weeping Elm)	In accordance with Appendix A – Tree Location Plan of the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016	6 x 4
T3	<i>Olea europea</i> var. <i>africana</i> (African Olive)*		4 x 3
T4	<i>Plumeria acutifolia</i> (Frangipani)		5 x 3
G5	4 x <i>Ficus benjamina</i> (Weeping Fig)		5 x 3
T5a	<i>Plumeria acutifolia</i> (Frangipani)	South west of G5	4 x 5
G7	2 x <i>Syagrus romanzoffiana</i> (Cocos palm)*	In accordance with Appendix A – Tree Location Plan of the Arboricultural Impact Assessment Report, written by	12 x 3
G9	<i>Syagrus romanzoffiana</i> (Cocos		15 x 3

	palm)*	Martin Peacock Tree Care, dated 25/10/2016	
G9a	<i>Syzygium sp.</i> (Lillypilly) - hedge	Eastern side boundary	~5 metres height
G11	2 x <i>Archontophoenix cunninghamiana</i> (Bangalow palm)	In accordance with Appendix A – Tree Location Plan of the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016	6 x 2
G12	4 x <i>Livistona australis</i> (Cabbage Tree palm)		6 x 2
T13	<i>Trachycarpus fortunei</i> (Chinese Windmill palm)		4 x 2

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

\* Tree species is exempt from Council's tree Management Development Control Plan. Consent from Council is not required to remove this tree species.

## A.2 Approved Plans and supporting documents

Reference	Description	Author/Drawn	Date(s)
Drawing No.s MB_CR_01/B, MB_CR_11/B, MB_CR_30/B	Landscape Plan	Myles Baldwin Design	18/11/2016
Drawing No. MB_CR_10/D	Landscape Plan	Myles Baldwin Design	21/03/2017
	Arboricultural Impact Assessment Report	Martin Peacock Tree Care	25/10/2016

## A.3 Approved Amended (s96) Plans and supporting documents

Nil

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

### B.1 Establishment of Tree Protection Zones (TPZ)

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	Location	Radius from Centre of Trunk (Metres)
T2	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	In accordance with Appendix A – Tree Location Plan of the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016	In accordance with the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016
T6	<i>Howea forsteriana</i> (Kentia palm)		
T10	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)		

T14	<i>Eucalyptus botryoides</i> (Bangalay)		4 metres
T15	<i>Eucalyptus tereticornis</i> (Forest Red Gum)		In accordance with the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016
T16	<i>Banksia integrifolia</i> (Coastal Banksia)		
G17	3 x <i>Callistemon viminalis</i> (Weeping Bottlebrush)		

**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
T2	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)
T10	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)
T15	<i>Eucalyptus tereticornis</i> (Forest Red Gum)
T16	<i>Banksia integrifolia</i> (Coastal Banksia)

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 2 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) Establishment of Ground protection  
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

Condition B.2 of this consent. Appropriate ground protection shall be installed under the supervision of the site arborist.

- g) The project arborist shall provide written certification of compliance with the above conditions.
- h) All site personnel and contractors must be made aware of all tree protection requirements associated with these conditions of consent.

## 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
T2	Melaleuca quinquenervia (Broad-leaved Paperbark)	In accordance with Appendix A – Tree Location Plan of the Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016	Approved soft landscaping
T6	Howea forsteriana (Kentia palm)		Approved soft landscaping
T10	Ficus microcarpa var. 'Hillii' (Hills Weeping Fig)		Approved soft landscaping

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

## B.3 Demolition and Construction Management Plan

Nil

## 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
- 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
Excavation within TPZ or specified radius of existing trees	Condition of exposed roots. Ensure no level changes from existing grade.
Prior to the issue of a Final Occupation	Supervise the dismantling of tree protection

Certificate	measures
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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 Tree Management Plan**

The *Construction Certificate* plans and specifications required by clause 139 of the *Regulation* must show the following information:

- a) Trees to be numbered in accordance with these conditions:
  - shaded green where required to be retained and protected
  - shaded red where authorised to be removed
  - shaded yellow where required to be transplanted
  - shaded blue where required to be pruned
- b) References to applicable tree management plan, arborists report, transplant method statement or bush regeneration management plan.

This plan shall be kept on site until the issue of the final occupation certificate.

**C.2 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
<b>LONG SERVICE LEVY</b> under Building and Construction Industry Long Service Payments Act 1986			
<b>Tree Damage Security Deposit –</b> Making good any damage caused to any public tree as a consequence of the doing of anything to which the consent relates.	\$17, 000.00	No	T600
<b>INSPECTION FEES</b> under section 608 of the Local Government Act 1993			
Public Tree Management Inspection Fee	\$180.00	No	T95

**C.3 Amended Landscape Plan**

Nil

**C.4 Amended Stormwater Drainage Plan**

Nil

**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, Tree Management Chapter E3 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) There shall be no excavation or work within a Tree Protection Zone (TPZ). 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 30mm 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 2303:2015). The replacement tree shall be planted in *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)
6 x <i>Acer palmatum</i> (Japanese Maple)	In accordance with Landscape Plan Drawing No.s MB_CR_01/B, MB_CR_11/B, MB_CR_30/B designed by Myles Baldwin Design, dated 18/11/2016 and Landscape Plan Drawing No. MB_CR_10/D, designed by Myles Baldwin Design, dated	In accordance with Landscape Plan Drawing No.s MB_CR_01/B, MB_CR_11/B, MB_CR_30/B designed by Myles Baldwin Design, dated 18/11/2016 and Landscape Plan Drawing No. MB_CR_10/D,	In accordance with Landscape Plan Drawing No.s MB_CR_01/B, MB_CR_11/B, MB_CR_30/
3 x <i>Bismarckia nobilis</i> (Bismarck Palm)			
1 x <i>Brachychiton rupestris</i> (QLD Bottle tree)			
2 x <i>Calodendrum capense</i> (Cape Chestnut)			
4 x <i>Cupaniopsis anacardioides</i> (Tuckeroo)			
3 x <i>Dracaena draco</i> (Dragon's Blood Tree)			
1 x <i>Ficus macrophylla</i> (Moreton Bay Fig)			



	21/03/2017	designed by Myles Baldwin Design, dated 21/03/2017	B designed by Myles Baldwin Design, dated 18/11/2016 and Landscape Plan Drawing No. MB_CR_10/D, designed by Myles Baldwin Design, dated 21/03/2017
2 x <i>Hibiscus tileaceus</i> (Cottonwood tree)			
5 x <i>Livistonia chinensis</i> (Chinese Fan palm)			
5 x <i>Magnolia grandiflora</i> (Bull Bay Magnolia)			
3 x <i>Olea europea</i> var. <i>europea</i> (European Olive)			
1 x <i>Plumeria acutifolia</i> (Frangipani)			
4 x <i>Phoenix sylvestris</i> (Silver Date palm)			
5 x <i>Trachycarpus fortunei</i> (Chinese Windmill palm)			
8 x <i>Washingtonia robusta</i> (Mexican Fan palm)			

The project arborist shall document compliance with the above condition.

### E.3 Paving in the vicinity of trees

Nil

### E.4 Level changes in the vicinity of trees

No level changes shall occur within the specified radius from the trunks of the following trees.

Council Ref No.	Species	Radius from Trunk (metres)
T10	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)	8
T14	<i>Eucalyptus botryoides</i> (Bangalay)	4

The project arborist shall document compliance with the above condition.

### E.5 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	Radius from Trunk (metres)
T2	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	8
T6	<i>Howea forsteriana</i> (Kentia palm)	3
T10	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)	15

T14	<i>Eucalyptus botryoides</i> (Bangalay)	8
T15	<i>Eucalyptus tereticornis</i> (Forest Red Gum)	6
T16	<i>Banksia integrifolia</i> (Coastal Banksia)	7

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 30mm 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 4 or recognised equivalent).

The project arborist shall document compliance with the above condition.

## **E.6 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.

<b>Council Ref No.</b>	<b>Species</b>	<b>Radius from centre of trunk (metres)</b>
T2	<i>Melaleuca quinquenervia</i> (Broad-leaved Paperbark)	8
T10	<i>Ficus microcarpa</i> var. 'Hillii' (Hills Weeping Fig)	15
T14	<i>Eucalyptus botryoides</i> (Bangalay)	8
T15	<i>Eucalyptus tereticornis</i> (Forest Red Gum)	6
T16	<i>Banksia integrifolia</i> (Coastal Banksia)	7

Excavations for installation of piers shall be located so that no tree root with a diameter equal to or in excess of 30mm 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 30mm.

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.

**G. Conditions which must be satisfied prior to the issue of any Subdivision Certificate**

Nil

**H. Conditions which must be satisfied prior to the issue of a Final Occupation Certificate (s109C(1)(c))**

**H.1 Landscaping**

The *principal contractor* or *owner* must provide to *PCA* a works-as-executed landscape plan and certification from a qualified landscape architect/designer, horticulturist and/or arborist as applicable to the effect that the works comply with this consent.

**Note:** This condition has been imposed to ensure that all Landscaping work is completed prior to the issue of the Final Occupation Certificate.

**I. Conditions which must be satisfied during the ongoing use of the development**

Nil

**J. Miscellaneous Conditions**

Nil

**K. Advisings**

**K.1 Pruning or Removing a Tree Growing on Private Property**

Woollahra Municipal Council's Development Control Plan (DCP) 2015, Tree Management Chapter E3 may require that an application be made to Council prior to pruning or removing any tree. The aim is to secure the amenity of trees and preserve the existing landscape within our urban environment.

Before you prune or remove a tree, make sure you read all relevant conditions. You can obtain a copy of the DCP from Council's website [www.woollahra.nsw.gov.au](http://www.woollahra.nsw.gov.au) or you may contact Council on 9391-7000 for further advice.



Simone Woodman  
**Tree Officer**

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**PROPOSAL:** Construction of a new single dwelling house including a swimming pool, ancillary structures & associated landscaping and siteworks

**FROM:** Simone Woodman - Tree Officer

**TO:** Mr D Booth

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- 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

## COMMENTS

The submitted Arboricultural Impact Assessment Report identifies the two most significant trees located within the subject property as a Broad Leaved Paperbark located along the 15 Coolong Road Vacluse frontage and a Hills Weeping Fig located in the front southern corner of 13 Coolong Road Vacluse. The design of the submitted landscape plan appears to include the retention of the Hills Weeping Fig however not the Broad Leaved Paperbark. Instead there appears to be a proposed retaining wall located through the trunk of the existing Broad Leaved Paperbark and level changes.

Considering the scale of the development proposal and number of existing trees proposed for removal the Broad Leaved Paperbark should be retained. Additionally the submitted landscape plan indicates the transplanting of an existing European Fan Palm. The landscape plan does not appear to identify the existing location of the European Fan Palm.

## RECOMMENDATIONS

Council's Tree and Landscape Officer has determined that the proposal is not satisfactory in its current form. The following information is required before further assessment of the application can be undertaken:

### Amended Landscape Plan

An amended Landscape Plan shall be prepared in accordance with Council's DA Guide. This plan must be submitted to Council for further assessment. The amended landscape plan must include the following:

- The retention of Tree No.2 *Melaleuca quinquenervia* (Broad Leaved Paperbark) in accordance with the recommendations made in the submitted Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016
- The retention of Tree No.10 *Ficus microcarpa* var. 'Hillii' (Hills Weeping Fig) in accordance with the recommendations made in the submitted Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016
- The retention of Tree No.s 15, 16 & 17 in accordance with the recommendations made in the submitted Arboricultural Impact Assessment Report, written by Martin Peacock Tree Care, dated 25/10/2016



Simone Woodman  
**Tree Officer**

