

Tree Report

Lismore Hospital Carpark

Dalziell St
Lismore
NSW 2480.

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1. Introduction

Northern Tree Care have compiled this report on request from Woollam Constructions who are constructing a carpark at the Lismore Hospital. There are a number of trees on the site and NSW Department of Planning and Environment have requested an Arborist Report be submitted as part of the approval process.

This report was compiled by Peter Gray Dip Hort (Arb). of Northern Tree Care. He is an arborist with over 15 years experience and is an AQF level 5 Consulting Arborist registered with Arboriculture Australia No. 2344. He has been providing tree reports for Local Government, State Government and private clients for over 15 years. The information contained in this report is true and accurate to the best knowledge of the author. Best professional judgement was used to make the recommendations contained in this report.

The information in the report is derived from site visits conducted on 15th October, 2014. The Site Plan *Lismore Hospital Carpark*. Drawing Level 1 Dalziell St 2130 DA 005 was provided by Woollam Constructions.

2. Scope

The site of the carpark covers several property titles in Dalziell St and Uralba St (see Attachment 1. Site Plan). For the purposes of this report the property will be considered as a whole. There are a number of mature aged trees on the site. This report describes the trees and evaluates their potential for retention in the development. Trees A-Z (Barrell 2006) is used to evaluate the trees.

The application for development approval will be made to the Department of Planning and Environment. Where possible however the local government regulations will be taken into account. Trees in Lismore are protected by Lismore City Council's Development Control Plan No 17 Tree Preservation Order. The provisions of the TPO will be included in the assessment of the trees. There are several shrubs on the site that are less than 5m in height that are not assessed in this report as they are not protected by Council's TPO.

Council generally requires replacement trees to be planted for trees removed and recommendations will be made for the planting of replacement trees.

The trees were assessed visually from the ground using Visual Tree Assessment (VTA) (Mattheck & Breloer 2003). The diameter at breast height (DBH) (Draper 2009) was measured using a girthing tape and the height using an hypsometer.

This report should be read as a whole.

3. Description

The proposed development is in the city of Lismore near the Lismore Hospital. The land is between Uralba St and Dalziell St and comprises a number of blocks of land. It is a commercial and residential area. The land slopes to the south and the soil is clay loam. Several of the blocks of land in Dalziell St had residences on them and the buildings have been demolished. The area near Uralba St is currently used as a parking area and the trees are growing on the southern edge of the carpark.

The development is to build a carpark for the hospital. The development is important to enable adequate parking for the users of the hospital.

The trees subject of this report are mature aged trees. They are described in detail in Table 1. Tree Data below. None of the trees are local native species of heritage significance and are not listed on the Threatened Species Conservation Act 1995 or Environmental Protection and Biodiversity Conservation Act 1999.

There are no trees on adjacent sites that could be affected by the development.

Table 1. Tree Data.

Tree No.	Name	Age	Condition	Height m	DBH mm	Crown m	TPZ m	Protected by TPO
1	Canary Island Palm <i>Phoenix canariensis</i>	Mature	Good	8	900	6	4	No
2	Camphor Laurel <i>Cinnamomum camphora</i>	Mature	Good	12	1,000	15	12	No
3	Poinciana <i>Delonix regia</i>	Mature	Fair	5	450	4	5.4	Yes
4	Cassia <i>Cassia fistula</i>	Mature	Good	4	250	5	3	Yes
5	Canary Island Palm <i>Phoenix canariensis</i>	Mature	Good	10	800	6	4	No
6	Weeping Fig <i>Ficus benjamina</i>	Mature	Good	10	500	8	6	Yes
7	Gum <i>Eucalyptus spp</i>	Mature	Fair	12	480	5	5.8	Yes
8	Cook Island Pine <i>Araucaria columnaris</i>	Mature	Fair	9	100	3	2	Yes
9	Cook Island Pine <i>Araucaria columnaris</i>	Mature	Fair	9	100	3	2	Yes
10	Weeping Fig <i>Ficus benjamina</i>	Mature	Good	10	900	10	8.4	Yes
11	Mango <i>Mangifera indica</i>	Mature	Good	12	900	12	10.8	No
12	Weeping Fig <i>Melaleuca leucadendra</i>	Mature	Good	12	670	10	8	Yes
13	Weeping Fig <i>Melaleuca leucadendra</i>	Mature	Good	7	500	3	6	Yes

Tree # 1

Canary Island Palm *Phoenix canariensis*.

This tree was part of the front garden in 28 Dalziell St. It is a medium sized palm tree in good condition. This species of palm has fronds with large sharp spines growing near the base of the fronds. *Phoenix canariensis* is exempt from Council's Tree Preservation Order as an environmental weed.



Photo 1. Tree # 1 Canary Island Pine.

Tree # 2.

Camphora Laurel *Cinnamomum camphora*.

This tree is growing in the north west corner of 26 Dalziell St. It is a mature aged tree. It has a co-dominant leader arising from 1m from the ground. One of the trunks is growing over the adjoining property in Dalzeill St. *Cinnamomum camphora* is not protected by Council's TPO as it is a noxious weed.



Photo 2. Camphor Laurel

Tree # 3

Poinciana *Delonix regia*

This tree is growing on the southern edge of the existing carpark in Uralba St. The tree is has low vigour and is in fair condition. The tree is protected by Council's TPO.



Photo 3. Tree # 3. Poinciana.

Tree # 4.

Cassia *Cassia fistula*.

This tree is growing in the existing carpark in Uralba St. It is a medium sized tree in good condition. The species has a show of yellow flowers in early Spring. The tree is protected by Council's TPO



Photo 4. Tree # 4. Cassia.

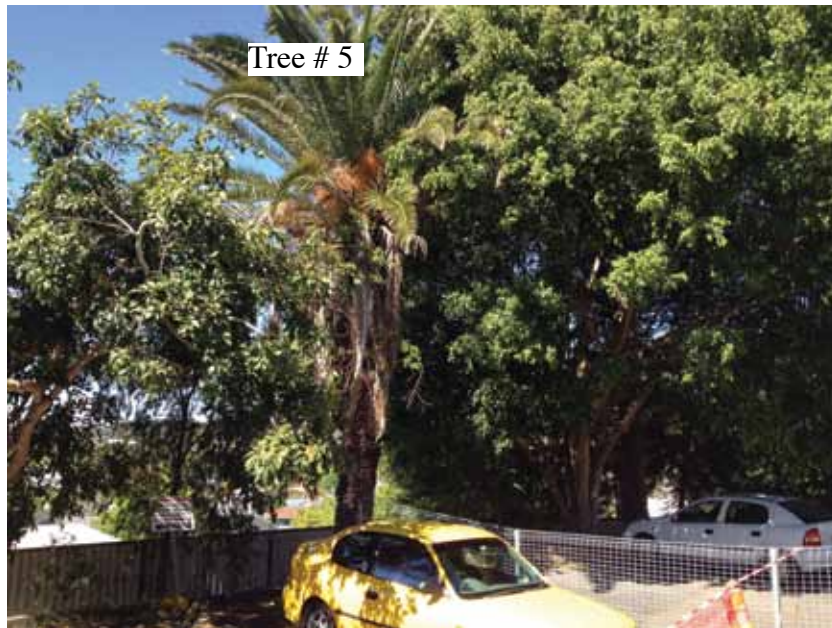
Tree # 5.

Canary Island Palm *Phoenix canariensis*.

This tree is not protected by Council's TPO.

Photo 5.

Tree # 5. Canary Island Palm



Tree # 6.

Weeping Fig *Ficus benjamina*.

This is a mature aged medium sized tree. The tree is an exotic species. It is protected by Council's TPO.



Photo 6. Tree # 6 Weeping Fig

Tree # 7.

Gum Tree *Eucalyptus spp.*

This is a mature aged tree. It is growing close to tree # 6 and has been suppressed by the nearby trees. The tree is protected by Council's TPO.



Photo 7. Tree # 7 Gum.

Tree # 8 & 9.

Cook Island Pine *Araucaria columnaris*.

These are small mature aged trees. They have been suppressed by the surrounding trees. The trees are protected by Council's TPO.



Tree # 10.

Weeping Fig *Ficus benjamina*.

This is a mature aged medium sized tree. The tree is an exotic species. It is protected by Council's TPO.



Photo 9. Tree # 10 Weeping Fig.

Tree # 11.

Mango *Mangifera indica*.

This is a mature aged medium sized tree. The tree is an exotic species. It is commonly grown as a fruit. Council's TPO exempts "Any tree(s) grown specifically for its edible fruit.". The tree is not protected by the TPO.

The tree is situated approximately 4 metres from the eastern boundary of 69 Uralba St. The Australian Standard AS 4970-2009 recommends that a Structural Root Zone necessary for the stability of the tree be maintained so that the roots are not compromised in this area. The SRZ for this tree is 3.1 metres measured as an area around the centre of the base of the tree with the radius of 3.1 metres. The SRZ is wholly within the neighbouring property at 71 Uralba St.

The branches overhang the boundary by about 3 metres. It is a legal entitlement to prune branches overhanging from a neighbouring property subject to Council's regulations.

Photo 10. Tree # 11
Mango.



Photo 11.
Tree # 11

The branches are overhanging the boundary.



Tree # 12.

Weeping Paperbark *Melaleuca leucadendra*.

This is a mature aged medium sized tree. The tree is a local native species. It is protected by Council's TPO. The SRZ for this tree is 2.8 metres.



Photo 12. Tree # 12 Weeping Paperbark.

This is a mature aged medium sized tree. The tree is a local native species. It is protected by Council's TPO. The SRZ for this tree is 2.5 metres. It is similar to tree # 12 except that it is smaller and it also has a low voltage insulated powerline running through the canopy.



Photo 13. Tree # 13. Weeping Paperbark.

4. Trees A-Z

Council's Development Control Plan (DCP) aims to promote the retention of trees and tree cover, within urban areas. Where a tree conflicts with a development and it is not possible to retain the tree in the development a decision must be made whether the tree constitutes a material constraint to the development. Trees A-Z (Barrell 2006) is a method of assessing trees on developments sites to inform the process of deciding whether they are considered to be important trees worthy of retention.

Trees A-Z uses a process of negative selection. The trees that are of poor quality such as noxious weeds are regarded as having little importance and can be removed if they conflict with the development. The question of whether the tree poses a material constraint to the development is resolved by categorizing the tree as "A" important or "Z" unimportant. Table 2 below shows the results of the assessment using Trees A-Z.

Table 2. Trees A-Z

Tree #	Name	Assessment	A or Z
1	Canary Island Palm <i>Phoenix canariensis</i>	Undesirable species	Z
2	Camphor Laurel <i>Cinnamomum camphora</i>	Noxious weed.	Z
3	Poinciana <i>Delonix regia</i>	Poor condition.	Z
4	Cassia <i>Cassia fistula</i>	Non native. Small size.	Z
5	Canary Island Palm <i>Phoenix canariensis</i>	Undesirable species.	Z
6	Weeping Fig <i>Ficus benjamina</i>	Non native. Invasive roots.	Z
7	Gum <i>Eucalyptus spp</i>	Common species. Can be easily replaced. Has potential to drop branches.	Z
8	Cook Island Pine <i>Araucaria columnaris</i>	Non native. Poor condition.	Z
9	Cook Island Pine <i>Araucaria columnaris</i>	Non native. Poor condition.	Z
10	Weeping Fig <i>Ficus benjamina</i>	Non native. Invasive roots.	Z
11	Mango <i>Mangifera indica</i>	Non native. Fruit tree.	Z
12	Weeping Paperbark <i>Melaleuca leucadendra</i>	Local native species. Protected by Council's TPO. Common species.	Z
13	Weeping Paperbark <i>Melaleuca leucadendra</i>	Local native species. Protected by Council's TPO. Common species.	Z

5. Recommendations

The construction of the carpark for the hospital is considered to be very important to the community. Adequate parking and ease of access to the hospital is vital to the health and wellbeing of the community. The trees on the site conflict with the development as proposed.

The trees have been assessed having regard to ecological, environmental and statutory requirements. They have been evaluated for their suitability for retention in the development by the method Trees A-Z. Trees # 1 to 11 are considered to be unimportant and the value of the trees is limited to their visual amenity. The trees are undesirable in poor condition or are easily replaced.

Trees # 12 and 13 are local native trees *Melaleuca leucadendra* protected by Council's TPO. They are a highly visible part of the streetscape in Uralba St. They are a common local species widely used as a street planting. It is considered that they are easily replaced. It is not possible to retain them in the development as proposed. To retain them would significantly reduce the number of car spaces able to be built. It is considered that the development is more important than the trees.

It is considered to be unreasonable to constrain the development in order to simply retain the visual amenity. It is recommended that all of the trees be removed to allow the proposed development.

Lismore City Council usually requires replacement planting of trees removed for development. It is recommended that thirteen (13) local native rainforest trees be planted as replacements for the 13 trees removed. Examples of suitable species for planting are:

- Bennett's Ash *Flindersia bennettiana*
- Blue Quondong *Elaeocarpus obovatus*
- Brown Pine *Podocarpus elatus*
- Lilli Pilli *Syzygium spp.*
- Flame Tree *Brachychiton acerifolia*
- Tuckeroo *Cupaniopsis anacardioides*
- Turpentine *Syncarpia glomulifera*
- Weeping Paperbark *Melaleuca leucadendra*
- White Laceflower *Archidendron hendersonii*

6. Disclaimer

The information contained in the report is true and accurate to the best knowledge of the author. Best professional judgement was used to make recommendations. However the authors of this report are not responsible for any action which might be taken or not taken in reliance on it.

This report remains the property of the authors and Woollam Constructions. It may not be used or reprinted without their express permission.

7. Bibliography

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8. Attachment 1. Site Plan

