



EARTHSCAPE HORTICULTURAL SERVICES
Arboricultural, Horticultural and Landscape Consultants
ABN 36 082 126 027

12th August 2013

Mr Scott van den Boogaard
Associate
Aspect Studios
Studio 61, Level 6, 61 Marlborough Street
SURREY HILLS NSW 2010

Ref:

Dear Scott,

Arboricultural Assessment Report
Proposed Resource and Research Centre - Moore College, Newtown

I refer to your request to review the implications of the abovementioned development on two (2) Liquidambar trees located on the nature strip in Carillion Avenue, Newtown adjacent to the abovementioned development. This report follows a previous Arboricultural Assessment Report for the development prepared by Footprint Green dated 9th October 2009 (Report No. mtcc1.01 Rev. 0.2). The subject trees are identified as T5 & T6 in the Footprint Green Report. The purpose of this report is to review the potential impact of the proposed development on the subject trees, as requested by Mark Louw of Allen Jack & Cottier (AJ&C) as part of a Section 75W Application.

The following drawings have been reviewed as part of this assessment:-

Title	Author	Dwg No.	Date
<i>Floor Plans</i>	A J & C Architects		

The subject trees were inspected by Earthscape Horticultural Services (EHS) on the 16th April 2013. An assessment of each tree was made using the Visual Tree Assessment (VTA) procedure.¹ Both of the trees were assessed in view from the ground. No aerial inspection or diagnostic testing has been undertaken as part of this assessment. A summary of the health and condition assessment is shown in **Appendix 1**. Whilst there are some minor discrepancies between the assessment by Footprint Green and Earthscape, the assessment is very similar. The dimension of the trees in trunk diameter and crown spread shows a slight increase since 2009, which is to be expected. This has a corresponding increase in the TPZ for T6.

A summary of the impact of the proposed development is shown in **Appendix 2**. The Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) for each tree were calculated for each tree in accordance with AS 4970:2009 (Protection of Trees on Development Sites). The TPZ and SRZ are shown in **Appendix 2**. A Part Plan, showing the proposed development relative to the subject trees is shown in **Appendix 3**.

The proposed development includes the demolition of an existing building and construction of a multi-storey 'Resource and Research Centre' within Moore College near the corner of Carillion and Avenue and King Street, Newtown. The building includes a basement level. Excavations for the basement and a proposed substation will result in an encroachment to the TPZ's of T5 of approximately 12% and to

T6 of approximately 20%. This extent of encroachment exceeds acceptable limits under AS 4790:2009.

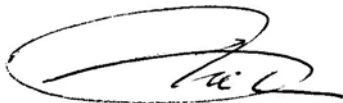
This species is relatively tolerant of such encroachments to the root zone, and both trees would probably tolerate the extent of the incursion proposed provided that adequate tree protection measures were adopted prior to and during construction. However, the proximity of the building will also necessitate the erection of temporary scaffolding to the height of the building within two metres of the trunks of both trees. The erection of temporary scaffolding at this proximity would necessitate significant canopy pruning on the south-western side of both trees in a vertical plane for the majority of their height. This will result in disfigurement of the trees and may result in a significant adverse impact on both T5 & T6. Given the proximity of the building, there are no alternative measures that can be recommended in this instance to avoid such impact.

Whilst the report by Footprint Green indicates that both trees could be retained, in my opinion the proposed works would necessitate the removal of both trees due to the extent of pruning required. Significant modification of the building would be required to provide greater clearance from the canopy and root zones to permit the retention of these trees, which is not considered feasible in this instance.

It is understood that Council's Street Tree Master Plan indicates *Jacaranda mimosifolia* (Jacaranda) as an appropriate street planting in Carillion Avenue. Whilst there are a total of four (4) Liquidambar at the eastern end of Carillion Avenue, they are not consistent with the remaining street planting. In order to compensate for the loss of amenity resulting from the removal of T5 & T6, consideration should be given to the replacement with two (2) new trees elsewhere on the nature strip in accordance with Council's Street Tree Master Plan.

If you require any further information regarding the above matter, please do not hesitate to contact me on 9456 4787 or 0402 947 296.

Yours sincerely,



Andrew Morton

Dip. (Arboriculture) [AQF Level 5]
B.App.Sci (Horticulture)
A.Dip.App.Sci. (Landscape)

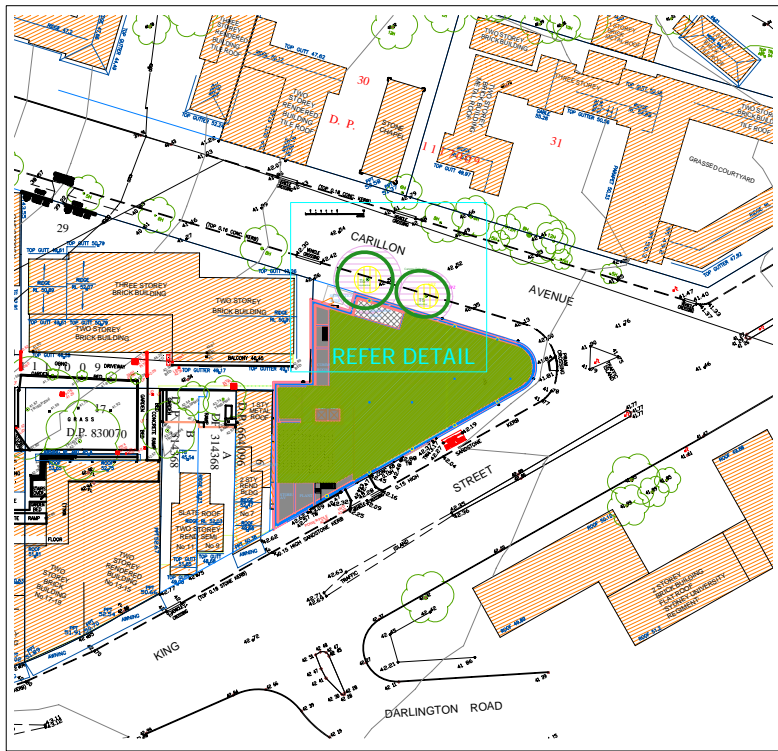
Member of the National Arborist's Association of Australia (NAAA)
Member of the International Society of Arboriculture (Australian Chapter)(ISAAC)

ⁱ Mattheck, Dr. Claus & Breloer, Helge (1994) – Sixth Edition (2001)
The Body Language of Trees – A Handbook for Failure Analysis
The Stationery Office, London, England

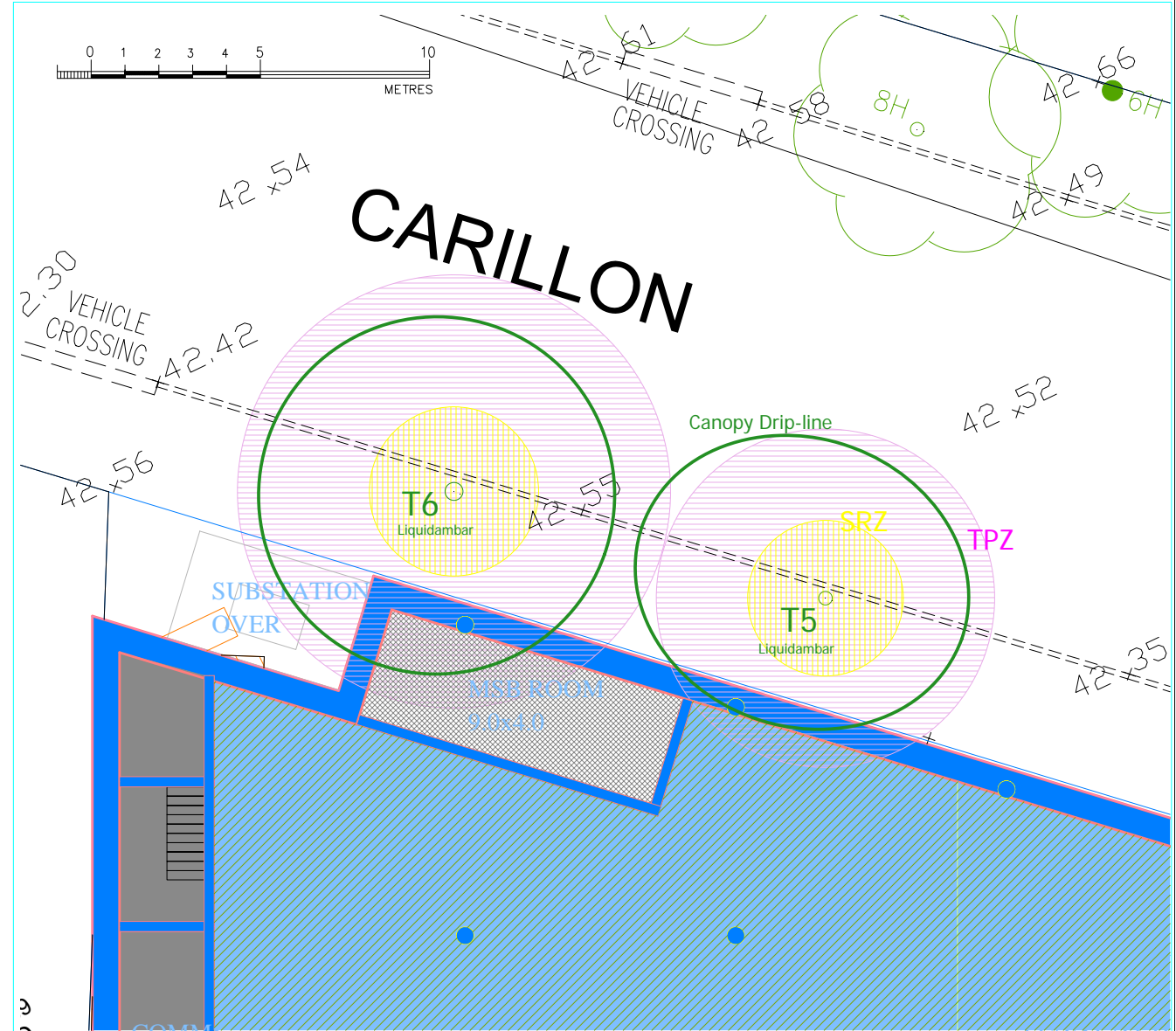
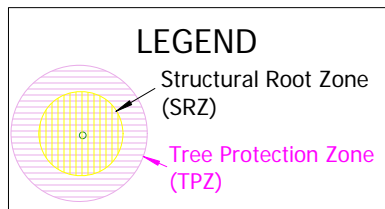
		APPENDIX 1 - TREE HEALTH AND CONDITION ASSESSMENT SCHEDULE												
Tree Identification No.	Species	Height (m)	Spread (m)	Trunk Diameter (mm)	Live Crown Size (m²)	Maturity Class	Condition	Previous Pruning	Health		Remaining Safe Useful Life Expectancy (SULE)	Landscape Significance Rating	Retention Value	Location
									Vigour	Pest & Disease				
5	<i>Liquidambar styraciflua</i> (Liquidambar)	11	9	414	81	M	Appears stable with sound branching structure. Exhibits multiple small wounds on woody surface roots to south due previous mechanical injury (footpath repairs) Large wound on trunk at 2 to 3 metres due vehicle damage.	Crown lifted to 3 metres	Good	No Evidence	Medium 15-40 Years	4	Moderate	Nature strip
6	<i>Liquidambar styraciflua</i> (Liquidambar)	12	11	532	110	M	Appears stable with sound branching structure.	Crown lifted to 3 metres	Good	No Evidence	Long - more than 40 years	4	Moderate	Nature strip

APPENDIX 2 - IMPACT ASSESSMENT SCHEDULE

Tree Identification No.	Species	Construction Tolerance	Tree Protection Zone (m R)	Structural Root Zone (m R)	TPZ (m ²)	Incursions To Root Zone &/or Canopy	Likely Impact	Recommendation
5	<i>Liquidambar styraciflua</i> (Liquidambar)	M	5.0	2.3	77.5	Proposed building and basement offset 3.2 metres south-west at RL 37.950 (4.5 metres below grade). Excavations for basement within TPZ. Encroachment to TPZ = 12%. Temporary scaffold /hoarding offset 1.7 metres south-west. Significant pruning required to clear temporary scaffold.	The extent of encroachment to the TPZ marginally exceeds acceptable limits. This species will tolerate the encroachment proposed. The extent of pruning to clear temporary scaffolding is likely to result in an adverse impact on this tree.	Consider removal and replacement with a new tree elsewhere on the nature strip in accordance with Council's Street Tree Master Plan in order to compensate for loss of amenity.
6	<i>Liquidambar styraciflua</i> (Liquidambar)	M	6.4	2.5	127.9	Proposed substation, building & basement offset 3.0 metres south-west at RL 37.950 (4.5 metres below grade). Excavations for basement & substation foundations within TPZ. Encroachment to TPZ = 20%. Temporary scaffold /hoarding offset 1.7 metres south-west. Significant pruning required to clear temporary scaffold.	The extent of encroachment to the TPZ marginally exceeds acceptable limits. This species should tolerate the encroachment proposed. The extent of pruning to clear temporary scaffolding is likely to result in an adverse impact on this tree.	Consider removal and replacement with a new tree elsewhere on the nature strip in accordance with Council's Street Tree Master Plan in order to compensate for loss of amenity.



SITE PLAN



DETAIL PLAN

APPENDIX 3
TREE LOCATION PLAN SHOWING
PROPOSED DEVELOPMENT
 Moore College



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DWG No. T13-04181

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