



The Tree Man
Arborist services

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TREE MANAGEMENT REPORT

17.10.09

Site:

1-3 Bligh Street, Burwood Heights

Client:

Urban Apartments

Commissioned By:

George Elias

Author:

Ben McInerney

Arbourist

Certificate 3 Horticulture (Arboriculture)

Summary

Urban Apartments have requested a Tree Management Report relating to several tree specimens located at 1-3 Bligh Street, Burwood Heights.

Ben McInerney qualified Certificate 3 Arborist, author, has prepared this report based on visual assessment on 13 October 2009.

The report discusses the current condition of the specimen identified by:

- The proposed development of apartments.
- Observations on site by Ben McInerney

The Nine (9) subject trees have been described & discussed. The aim of this report is to confirm the viability of the trees, relating to health, vigor, condition & any immediate risk to the proposed development.

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Introduction

This report contains observations & recommendations intended to assist in the management of the Nine (9) trees discussed within the property 1-3 Bligh Street, Burwood Heights.

The report discusses the current condition of the specimen identified by:

- Their current position in relation to the proposed development and their likelihood of failure
- Observations on site by Ben McInerney

Ben McInerney, the author, visited this site on the 13th October 2009.

The Nine (9) subject trees have been described & discussed. The aim of this report is to confirm the viability of the trees, relating to health, vigor, condition & any potential hazard to the surrounding dwellings.

2 Methodology

Assessment of the tree has been from ground level by eye, using visual tree assessment (VTA) techniques developed by Claus Mattheck, in *The Body Language of Trees* (1994). Assessment includes:

- Trees current condition & likely future health.
- Species tolerance to root disturbance and/or development
- Likely future hazard potential to persons & property
- Trees amenity value, such as significance, screening & habitat.

No root analysis, soil testing, „Resistograph“[®] drilling or aerial canopy inspection was undertaken. See the following Appendix for further information:

- Appendix A Glossary of common Arboreal terms
- Appendix B Tree Protection/management
- Appendix C Post Construction Planting & Management
- Appendix D Tree Location Plan

Observations

The Site

The subject trees are located within the property 1-3 Bligh Street, Burwood Heights. Adjacent properties have well established tree and shrub specimens.

#	Identified	Height	Hth & Vig
1	Morus spp. <i>Mulberry tree</i>	5m	Very good
2	Platanus x hispanica <i>London plane tree</i>	7m	Very Good
3	Shinus molle Peppercorn tree	10m	Poor
4	Pinus radiata <i>Ratiata Pine</i>	13m	Poor
5	X Cupressocyaris laylandii <i>Layland cypress</i>	2.5m	Very good
6	Casuarina Glauca <i>Casuarina</i>	6.5m	Good
7	Liquidamber styraciflua <i>Liquid Amber</i>	6m	Very Good
8	Robinia pseudoacacia <i>Golden Robinia</i>	6m	Very Good
9	Acer Buergerianum <i>Tridant Maple</i>	2.8m	Fair

Discussion

Trees 1, 5, and 9 will not be discussed in this report as they fall outside Burwood council TPO requirements for approval. (Refer Burwood council Tree Preservation Order Part A 4.2 + 6.1)

Specimens 3 and 4 located at the rear of the property are in very poor condition due to years of neglect, poor pruning practices and soil compaction. Specimen 3 *Shinus molle* *Peppercorn tree* is an over mature tree showing signs of stress. It has epicormic shoots from base to crown and shows signs of previous branch failures.

Specimen 4 *Pinus ratiata* is also suffering from similar negative treatment as specimen 3. Although it appears to be in better health than the peppercorn tree is has a very poor growth habit and is suffering from being hacked at. It is quite frankly an eye-sore.

Specimen 6 the *Casuarina glauca* seems to be in fair health, but has a very poor habit. It is still a very young specimen, but due to its placement is growing directly into service lines. This tree was not trained into a single main leader, but has several twisting leaders. In time this tree will be an issue.

Specimens 2, 7 and 8 all seem to be in good health with good growth patterns and are structurally sound. They show no signs of stress or insect activity. All specimens are juvenile and fall just inside TPO approval requirements.

There are no other trees of significance on site. All remaining shrubs will be cleared.

Trees in surrounding property will not be impacted by construction as they are located in far enough from property lines.



Specimen 3 Peppercorn tree showing poor growth and epi shoots

Recommendations

Specimens 1, 5 and 9 can be removed at owner's discretion as discussed above.

I recommend that trees 3 and 4 are removed.

I will allow specimens 2, 6 and 8 to be removed due to the fact that they are very young and on the provision that they are directly replaced in the gardens of the new development

All Nine (9) trees are to be replaced within 2 months of constructions completion. Replacement trees are to be Australian native. At least three (3) of the nine (9) trees used as replacements, must be of species *Robinia pseudoacacia*, *Platanus x hispanica* and or *Liquidamber styraciflua*.

All tree removals must be carried out by a Cert 3 arborist or higher. Replacement trees must be planted by a qualified horticulturist with a watering program of at least 2 months implemented.

I advise that all planting and watering programs are overseen by Burwood council.





Left. Specimens 5 & 6. Right. casuarinas growth pattern



Specimen 8 Golden robinia

Limitations on the use of this report

This report is to be utilized in its entirety only. Any written or verbal submission, report or presentation that includes statements taken from the findings, discussions, conclusions or recommendations made in this report, may only be used where the whole of the original report (or a copy) is referenced in, & directly attached to that submission, report or presentation.

Assumptions

Care has been taken to obtain information from reliable resources. All data has been verified insofar as possible; however, *The Tree Man Arborist Services* can neither guarantee nor be responsible for the accuracy of information provided by others.

Unless stated otherwise:

Information contained in this report covers only the trees that were examined & reflects the condition of the trees at the time of inspection; and

The inspection was limited to visual examination of the subject trees without dissection, excavation, probing or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future.

Conclusion

In conclusion all trees on site are to be removed as per recommendations. No tree protection zones necessary for existing or surrounding properties.

1 Recommended References

Barrell, J. 1993. *'Preplanning Tree Surveys: Safe Useful Life Expectancy (SULE) is the Natural Progression'*, *Arboricultural Journal* 17:1, February 1993,

Barrell, J. 1995, *'Pre-development Tree Assessments'*, in *Trees & Building Sites*, Proceedings of n International Conference Held in the Interest of Developing a Scientific Basis for Managing Trees in Proximity to Buildings, International Society of Arboriculture, Illinois,

Dr. G. Watson & Dr. D. Neely, *'Trees & Building Sites'*, ISA Illinois USA 1995,

Dr. N. Matheny & Dr. J.R. Clark, *'Trees & Development'*, ISA Illinois USA 1998 ,

Phillip J. Craul, *'Urban Soil in Landscape Design'*, J. Wiley & Sons, New York USA 1992,

Clark, Ross, *'A Guide to Assessment of Tree Quality'*. NATSPEC/ Construction Information, Milson's Point NSW, 2003 &

Clark, Ross. *'Purchasing Landscape Trees'*, Construction Information Systems Australia Pty. Ltd., Milson's Point NSW, 1996.

2 Selected Bibliography

Hitchmough, J.D. 1994. *'Urban Landscape Management'*, Inkata Press, Sydney.

Mattheck, C. & Breloar, H. (1994) *'Body Language of Trees'*. The Stationery Office. London.

A54373.2007 *'Pruning of Amenity Trees'*, Standards Australia.

BS5837-2005. *'Guide for Trees in Relation to Construction'*, Standards Board, UK.

Appendix A - Glossary

Glossary of common Arboreal terms

- Age:**
- I** *Immature* refers to a well-established but juvenile tree
 - SM** *Semi-mature* refers to a tree at growth stages between immaturity & full size
 - M** *Mature* refers to a full sized tree with some capacity for further growth
 - LM** *Late Mature* refers to a full sized tree with little capacity for growth that is not yet about to enter decline
 - OM** *Over-mature* refers to a tree about to enter decline or already declining
 - LS** *Live Stag* refers to a tree in a significant state of decline. This is the last life stage of a tree prior to death.

Hth & Vig Health & Vigour.

Health refers to the tree's form & growth habit, as modified by its environment (aspect, suppression by other tree, soils) & the state of the scaffold (ie. trunk & major branches), including structural defects such as cavities, crooked trunks or weak trunk/branch junctions. These are not directly connected with health & it is possible for a tree to be healthy but in poor condition/vigor. **Classes are:**

Excellent (E), V. Good (VG), Good (G), Fair (F), Declining (D), Poor (P), Very Poor (VP)

Vigour refers to the tree's growth rate/condition as exhibited by the crown density, leaf colour, presence of epicormic shoots, ability to withstand disease invasion & the degree of dieback. **Classes are:**

Excellent (E), V. Good (VG), Good (G), Fair (F), Declining (D), Poor (P), Very Poor (VP)

Useful Life Expectancy (ULE) refers to any individual tree specimen potential life

expectancy (viability) based on VTA assessment, three groups are described,

Short = Less than Five years

Medium = Five–Fifteen years

Long = more than Fifteen years

Diameter at Breast Height (DBH) refers to the tree trunk diameter at breast height (1.4 meters above ground level).

Critical Root Zone (CRZ) refers to a radial offset of Five (5) times the trunk DBH raised to the next 0.5m increment (measured from the centre of the trunk). This zone is often the location of the tree's structural support roots, i.e. primary woody roots.

Primary Root Zone (PRZ) refers to a radial offset of Five (5) times the trunk DBH measured from the centre of the trunk. This zone often contains a significant amount of (but by no means all of a tree's) fine, non-woody roots required for uptake of nutrients, oxygen & water.

Tree Protection Zone (TPZ) is a "No Go Zone" surrounding a tree to aid in its ability to cope with disturbances associated with construction works. Tree protection involves minimising root damage that is caused by activities such as construction. Tree protection also reduces the chance of a tree's decline in health or death & the possibly damage to structural stability of the tree from root damage.

To limit damage to the tree, protection within a specified distance of the tree's trunk must be maintained throughout the proposed development works. No excavation, stockpiling of building materials or the use of machinery is permitted within the TPZ.

Using the *British Standard for Trees on Construction Sites (BS5837)*, a TPZ. is based on the age of the tree, young, middle aged or mature, the trunk diameter at D.B.H. & the tree's vigor. A TPZ is required for each tree or group of trees within five meters of building envelopes.

Branch Bark Ridge & Branch Bark Collar (BBR & BBC) a zone of natural protection.

Stem/bark inclusion refers to a genetic fault in the tree's structure. This fault is located at the point where the stems/branches meet. In the case of an inclusion this point of attachment is potentially weak due to bark obstructing healthy tissue from joining together to strengthen the joint.

Decay refers to the break down tissues within the tree. There are numerous types of decay that affect different types of tissues, spread at different rates & have different affect on both the tree's health & structural integrity.

Point of Attachment refers to the point at which a stem/branch etc join.

Dead wood refers to any whole limb that no longer contains living tissues (eg live leaves &/or bark). Some dead wood is common in a number of tree species.

Die back refers to the death of growth tips/shoots & partial limbs. Die back is often an indicator of stress & tree health.

One dimensional crown refers to branching habits & leaves that extend/grow in one direction only. There are many causes for this growth habit such as competition & pruning.

Crown Foliage Density of Potential (CFDP) refers to the density of a tree's crown in relation to the expected density of a healthy specimen of the same species. CFDP is measured as a percentage.

Epicormic growth/shoots refers to growth/shoots that are/have sprouted from axillary buds within the bark. Epicormic growth/shoots are a survival mechanism that often indicates the presence of a current or past stress even such as fire, pruning, drought etc.

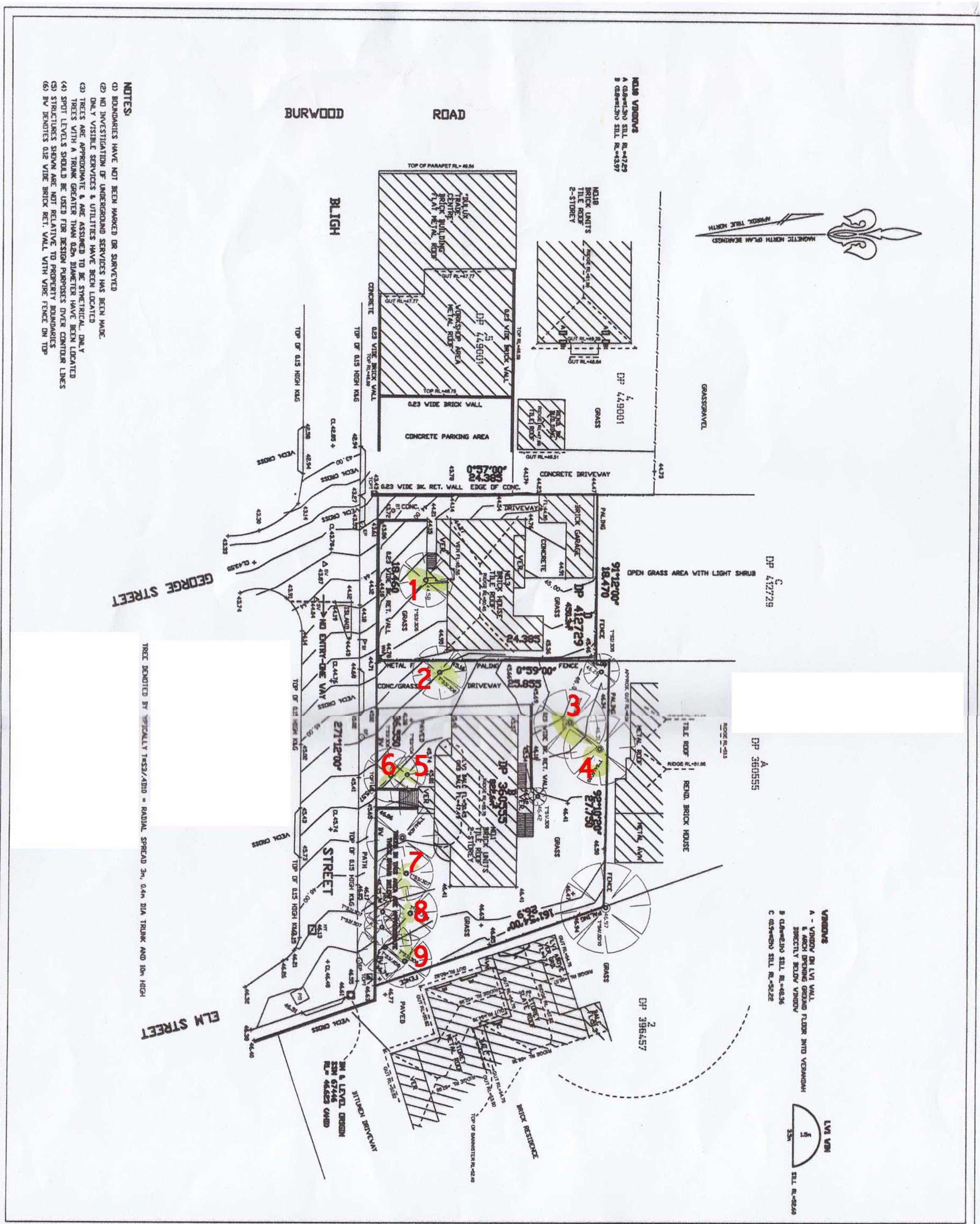
Over Head Powerlines (OHP) Over head electricity wiring

LVOHP Low Voltage Over head Powerlines

HVOHP High Voltage Over head Powerlines

ABC Aerial Bundled Cable

Existing Layout at 1-3 Bligh Street Burwood heights. Subject trees marked



NOTES:

- (1) BOUNDARIES HAVE NOT BEEN MARKED OR SURVEYED
- (2) NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE
- (3) ONLY VISIBLE SERVICES & UTILITIES HAVE BEEN LOCATED
- (4) TREES ARE APPROXIMATE & NOT ASSURED TO BE SYMMETRICAL. ONLY TREES WITH A TRUNK GREATER THAN 100MM DIAMETER HAVE BEEN LOCATED
- (5) SPOT LEVELS SHOULD BE USED FOR DESIGN PURPOSES OVER CONTOUR LINES
- (6) PRODUCTS SHOWN ARE NOT RELIATIVE TO PROPERTY BOUNDARIES
- (7) BY NOTES ON THE BRICK RET. WALL WITH VINE FENCE ON TOP

TREE DENOTES BY SPECIALLY TRESS/ARBO = RADIAL SPREAD 3m, 0.4m DIA TRUNK AND 10m HIGH

G&R SURVEYING SERVICES P/L GABN 37 132 081 7553	
LAND SUBDIVISION & DEVELOPMENT ENGINEERING SERVICES FREE QUOTES COMPUTER PLATTING PHONE: 9707 1105 FAX: 9707 1315 MOBILE: 0419 606 537 EMAIL: survey@grsurvey.com.au	
TITLE	DETAIL & LEVEL SURVEY 1-3 BLIGH STREET BURWOOD HEIGHTS
CLIENT	URBAN APARTMENTS P/L
SURVEYOR	GEORGE NAJJAR REGISTERED SURVEYOR
DRAWN BY	G. NAJJAR
PLAN DETAILS	
JOB No.:	665-09
FILE No.:	665-09.DWG
SCALE:	1:200 (A1)
PLAN DATE:	25-08-09
DATE OF SURV.:	13-08-09
HORIZ. CONTROL:	LOCAL
CONTOUR INT.:	0.2m
HEIGHT DATUM:	AS SHOWN
LEGEND	
PT	UNKNOWN PT
TR	TRAIL
FL	FLOOR LEVEL
SL	SPOT LEVEL
BN	BENCH MARK
SP	SURFACE PITCH
GP	GATE
SW	SEWER MAIN
SM	STORM WATER MAIN
W	WATER MAIN
EV	VALVE
S	ROAD TREE SPREAD
DR	DRIVEWAY
SM	SEWER MAIN
SI	SEWER
LI	LIGHT
BT	BENCH MARK
EM	ELECTRICITY