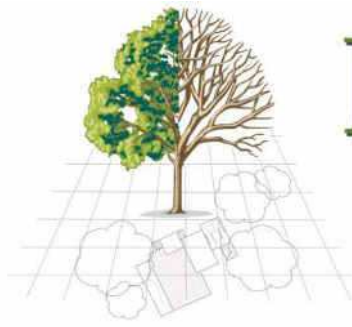




Naturally Trees

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**Arborist Reports, Landscape Design, Flora and Fauna Surveys,
Biodiversity and Ecological Impact Assessments &
Bushfire Protection Assessment Services**

ARBORICULTURAL CONSTRAINTS REPORT

31 July 2015

**Marriott Street and Baptist Street
Surry Hills, NSW**

Prepared for
Surry Hills Projects Pty Ltd

Architect's checklist

The purpose of this report is to provide sufficient tree information for the architect to prepare a preliminary layout, taking proper account of the tree constraints. In our experience, careful consideration of the following list of checks may reduce delays in getting a final decision from the council:

- Read section 3.1 carefully to understand how the constraints zones are established and the implications they have on the layout
- Do not design any disturbance in TPZ without telling us and checking on the implications on trees
- Carefully consider the specific points that apply to this site as set out in 3.2
- If the time it takes to get a decision on this application is important, the points in 3.3 must be considered
- We must review any layout produced as a result of this report before it is submitted
- This report is confidential to the developer's team and must not be released to any other parties without proper authorisation
- All future drawings that relate to tree issues must have all the trees shown and numbered as set out in this report



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1. INTRODUCTION

- 1.1 **Instruction:** I am instructed by Surry Hills Project Pty Ltd C/- Toga Group to inspect the tree population at Marriott Street and Baptist Street, Surry Hills and advise on the constraints they pose to its development.
- 1.2 **Purpose and limitations of this report:** This report is specifically for the architect to prepare a preliminary design for further internal consultation within the design team before any layout is finalised and submitted to the council as part of a development application. The following limitations apply to its use:
1. **This is a preliminary document:** This report is strictly for consultation to provide preliminary guidance. The guidance is based on a brief site inspection and it may be necessary to make adjustments to any initial designs before they are suitable for final submission.
 2. **Plans:** All plans are based on provided information and are illustrative for planning purposes. They should only be used relating to tree issues and are not suitable for any other purpose.
 3. **Confidentiality:** This report is confidential to the Client and should not be released to any Third Party without consultation with Naturally Trees and consent from the Client.
 4. **Notification of proposed disturbance within TPZs:** We must be clearly notified of any disturbance proposed in TPZs so that we can advise on the implications before plans are finalised.
 5. **Further consultation on tree issues:** Under no circumstances should any design based on this information be submitted to the council, for development application, without the tree issues being reviewed by Naturally Trees.
- 1.3 **Further explanations:** To make this report easier to use, its emphasis is on keeping the main text concise with minimal background explanations. Where appropriate, further explanations and information are included as appendices.
- 1.4 **Documents and information provided:** Surry Hills Project Pty Ltd C/- Toga Group provided me with copies of the following documents:
- Survey Plan, Dwg No. PR128417.DTL_20150724_REV.A.dwg (Sheets 1 to 10), by RPS dated 24 July 2015.



2. SITE VISIT AND COLLECTION OF DATA

- 2.1 **Site visit:** I carried out an unaccompanied site visit on 28 July 2015. All my observations were from ground level without detailed investigations and I estimated all dimensions unless otherwise indicated. The weather at the time of inspection was clear and dry with good visibility.
- 2.2 **Collection of basic data:** I inspected each tree and have collected information on species, height, diameter, maturity and potential for contribution to amenity in a development context. I have recorded this information in the tree schedule included, with explanatory notes, in Appendix 2. I stress that my inspection was of a preliminary nature and did not involve any climbing or detailed investigation beyond what was visible from accessible points at ground level.



3. USING THE TREE DATA TO ASSIST LAYOUT DESIGN

3.1 General background

- 3.1.1 **Tree AZ method of tree assessment:** The TreeAZ assessment method determines the worthiness of trees in the planning process. TreeAZ is based on a systematic method of assessing whether individual trees are important and how much weight they should be given in management considerations. Simplistically, trees assessed as potentially important are categorised as 'A' and those assessed as less important are categorised as 'Z'. Further explanation of TreeAZ can be found in Appendix 2.

In the context of new development, all the Z trees are discounted as a material constraint in layout design. All the A trees are potentially important and they dictate the design constraints.

- 3.1.2 **Estimating the preliminary tree constraints:** The purpose of categorising the trees is to focus attention on the ones worth retaining. As set out in paragraph 3.1.1 above, the Z category trees are discounted and only the A trees are design considerations. I have estimated the constraints these trees impose on the use of the site and identified them as two zones:

- **The tree protection zone (TPZ)** is an area where ground disturbance must be carefully controlled. The TPZ was established according to the recommendations set out in AS4970-2009. These recommendations quantify the TPZ based on trunk diameter. In principle, a maximum encroachment of 10% is acceptable within the TPZ and a high level of care is needed during any activities that are authorised within it if important trees are to be successfully retained.
- **The structural root zone (SRZ)** is a radial distance from the centre of a tree's trunk, where it is likely that structural, woody roots would be encountered. The distance is generally based on trunk diameter, although this varies with tree height, crown area, soil type and soil moisture. The SRZ may also be influenced by natural or built structures, such as rocks and footings. The SRZ only needs to be calculated when major encroachment (>10%) into a TPZ is proposed.

- 3.1.3 **Plan TCP01:** Plan TCP01 in Appendix 4 illustrates a preliminary indication of the tree constraints and may need to be updated in the context of further discussions. It is based entirely on provided information and can only be used for dealing with the tree issues. All scaled measurements must be checked against the original documents we were provided with. The number of each relevant tree feature is highlighted in colour on the plan to enable quick identification of tree categories. The numbers of category A tree features are shown in green and category Z are shown in blue. These colours are also used in the tree schedule text. To further help rapid visual identification of tree categories, the number of all A trees is set within a



green triangle and the number of all Z trees is set within a blue rectangle. AA trees are denoted with double triangles, one inside the other, and ZZ trees are denoted with double rectangles, one inside the other.

- 3.1.4 **Using this information in the layout design:** This information is preliminary and only suitable for drawing up initial design proposals. Further arboricultural consultation is essential before finalising any layout. Only category A trees should influence the layout. Designers should try to avoid the loss of these trees because the council will consider them important in determining the full impact of the proposal. Category Z trees can be considered for retention if there is scope within the scheme. However, their loss should not be a material constraint and layouts do not have to be designed around keeping them. As a starting point in the design process, no significant disturbance should occur within the TPZ of any category A trees.

As set out in 3.1.2 above, there is sometimes scope to reduce this slightly in some directions if a corresponding increase can be achieved in other directions that result in the TPZ remaining the same. However, such changes are the exception rather than normal and would need to be assessed on a tree-by-tree basis. Under some circumstances, it may be acceptable to place footpaths, roads and unoccupied buildings within the TPZ but special precautions will be required and should be detailed after consultation with an arboriculturist. However, designers should always remember that the more encroachment there is into the TPZ, the more likely the council are to object to the layout.

3.2 Specific issues on this site

- 3.2.1 **Comments on individual trees:** In the context of the above general points, I wish to specifically draw your attention to the following issues:

- General comments: There are many trees growing very close to the existing building. It is feasible to assume that built structures and continuous footings will inhibit the spread of woody roots. Similarly, kerbing and hard-stand roads help deter root growth. Therefore it is likely that the roots of trees located within the northern and western garden beds are contained within the garden beds only and unlikely extend outside the bed.
- Excavation for any proposed basement parking: If basement parking is being considered, then I stress that any excavation into existing levels is unlikely to be approved unless it is outside the TPZ shown on plan TCP01. Existing hard standing can be used for new surfacing but only at the same level and not where excavation is required.



- 3.2.2 **Drainage and other services:** Drainage runs, soakaways and the installation of other services can cause disruption to TPZs and result in important trees being damaged. It is preferable to keep all such services out of TPZs because the more encroachment there is, the less likely the council is to find proposals acceptable. I advise that these matters are considered at an early stage to avoid a justifiable reason for refusal further into the design process. My experience is that demonstrating services will not encroach into TPZs often saves delays in processing planning applications and can sometimes be the difference between consent and a refusal.
- 3.2.3 **Tree preservation order (TPO):** The subject trees are legally protected under City of Sydney Council's Tree Preservation Order, it will be necessary to consult the council before any pruning or removal works other than certain exemptions can be carried out. The works specified above are necessary for reasonable management and should be acceptable to the council. However, tree owners should appreciate that the council may take an alternative point of view and have the option to refuse consent.
- 3.2.4 **New structures and/or surfacing within TPZs:** If it is proposed to place any new structures and/or hard surfacing within TPZs, it is likely that the council will require detailed cross-sections to reassure them that what is proposed can be implemented without excavating into existing soil levels. These must be at a scale that allows the relationship between existing and proposed to be easily seen so that it clearly demonstrates there will be no excessive disturbance of TPZs. There must be a separate cross-section for each significant tree that may be affected. My experience is that providing this level of information at an early stage often saves delays in processing planning applications and can sometimes be the difference between consent and a refusal.

3.3 Progressing towards a decision

- 3.3.1 **Factors that can affect the length of time to get a decision:** It is our experience that, where the council consider trees an important constraint on development, two factors can significantly reduce the time it takes to progress planning applications to a decision:
- **Good communication:** It is essential that the various experts in the developer's team communicate effectively. All the experts advising on an application must meet at least once before the submission to ensure that the implications of all the constraints are properly explored and accounted for in the design. Delays frequently arise because architects and engineers do not fully appreciate the tree issues. Face to face meetings are the best way to ensure that everyone understands the tree implications, which is the most effective way to speed up progress towards a decision.



- **Early submission of supplementary tree information:** Councils are becoming increasingly demanding in their requirement for detailed tree information to be provided at the submission stage rather than leaving it to be conditioned. Our experience is that development teams who understand this get quicker and more favourable decisions than those that do not think it is worth the effort. This is particularly important on marginal sites where the tree officer is not convinced the proposals can be implemented in practice. Providing details of implementation at an early stage often provides the comfort zone the tree officer is looking for to switch from an objection to support.

3.3.2 Further arboricultural consultation: This report is the first stage of arboricultural consultation to allow a draft layout to be produced. Invariably, all preliminary layouts need further review by an arborist to confirm they have fully accounted for the tree constraints. Once this has happened and a final layout has been agreed, we will prepare an arboricultural impact appraisal report as supporting information for the development application. If appropriate, this will include a detailed arboricultural method statement to set out the tree protection and implementation details, demonstrating that all the tree issues have been properly considered.



4. BIBLIOGRAPHY

4.1 List of references:

Australian Standard AS4373-2007 *Pruning of Amenity Trees*.
Standards Australia.

Australian Standard AS4970-2009 *Protection of trees on development sites*.
Standards Australia.

Barrell, J (2009) Draft for Practical Tree AZ version 9.02 A+NZ
Barrel Tree Consultancy, Bridge House, Ringwood BH24 1EX

Brooker, M. Kleinig, D (1999) Field guide to eucalypts – South eastern Aust.
Blooming Books, Hawthorn Vic.

Robinson, L (1994) Field Guide to the Native Plants of Sydney
Kangaroo Press, Kenthurst NSW



5. DISCLAIMER

5.1 Limitations on 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, and directly attached to that submission, report or presentation.

ASSUMPTIONS

Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible: however, Naturally Trees can neither guarantee nor be responsible for the accuracy of information provided by others.

Unless stated otherwise:

- *Information contained in this report covers only those trees that were examined and reflects the condition of those trees at 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.*

Yours sincerely



Andrew Scales

Arboriculture Australia #2136
Dip. Horticulture / Arboriculture
Mobile: 0417 250 420



APPENDIX 1

Brief qualifications and experience of Andrew Scales

1. Qualifications:

Associate Diploma Horticulture	Northern Sydney Institute of TAFE	1995-1998
Certificate in Tree Surgery	Northern Sydney Institute of TAFE	1998
Associate Diploma Arboriculture	Northern Sydney Institute of TAFE	1999-2006

2. Practical experience:

Being involved in the arboricultural/horticultural industry for in excess of 10 years, I have developed skills and expertise recognized in the industry. Involvement in the construction industry and tertiary studies has provided me with a good knowledge of tree requirements within construction sites.

As director of Naturally Trees, in this year alone I have undertaken hundreds of arboricultural consultancy projects and have been engaged by a range of clients to undertake tree assessments. I have gained a wide range of practical tree knowledge through tree removal and pruning works.

3. Continuing professional development:

Visual Tree Assessment (Prof. Dr. Claus Mattheck)	Northern Sydney Institute of TAFE	2001
Wood Decay in Trees (F.W.M.R.Schwarze)	Northern Sydney Institute of TAFE	2004
Visual Tree Assessment (Prof. Dr. Claus Mattheck)	Carlton Hotel, Parramatta NSW	2004
Tree A-Z / Report Writing (Jeremy Barrell)	Northern Sydney Institute of TAFE	2006
Up by Roots – Healthy Soils and Trees in the Built Environment (James Urban)	The Sebel Parramatta NSW	2008
Tree Injection for Insect Control (Statement of Attainment)	Northern Sydney Institute of TAFE	2008
Quantified Tree Risk Assessment (QTRA) Registered Licensee #1655	South Western Sydney Institute TAFE	2011
Practitioners Guide to Visual Tree Assessment	South Western Sydney Institute TAFE	2011
Quantified Tree Risk Assessment (QTRA) Registered Licensee #1655	Richmond College NSW TAFE	2014

4. Current professional memberships:

Arboriculture Australia – (Registered Consulting & Practising Arborist #2136)



APPENDIX 2

Tree schedule

NOTE: Colour annotation is AA & A trees with green background; Z & ZZ trees with blue background.

No.	Species	Height	Spread	DBH	TPZ	Foliage %	Age class	Defects/Comments	Location	Services	Significance	Tree AZ
1	<i>Liquidambar styraciflua</i>	16	12	450	5.4	80%	M	Nil	Garden bed	Kerb	H	A1
2	<i>Liquidambar styraciflua</i>	16	10	450	5.4	70%	M	Lopped central leader under wires	Garden bed	Kerb	H	Z9
3	<i>Corymbia citriodora</i>	26	22	700	8.4	80%	M	Nil	Garden bed	Adjacent building	H	A1
4	<i>Phoenix canariensis</i>	16	7	600	7.2	90%	M	Nil	Garden bed	Nil	M	A1
5	<i>Casuarina cunninghamiana</i>	16	12	450	5.4	80%	M	Lopped central leader, 3x new leaders	Garden bed	Adjacent structure	M	Z9
6	<i>Casuarina cunninghamiana</i>	16	8	350	4.2	80%	M	Nil	Garden bed	Nil	M	A1
7	<i>Casuarina cunninghamiana</i>	16	10	400	4.8	80%	M	Nil	Garden bed	ABC	M	A1
8	<i>Casuarina cunninghamiana</i>	14	10	350	4.2	80%	M	Nil	Garden bed	ABC	M	A1
9	<i>Casuarina cunninghamiana</i>	18	12	400	4.8	80%	M	Nil	Garden bed	Adjacent building	H	A1
10	<i>Liquidambar styraciflua</i>	16	12	450	5.4	80%	M	Nil	Garden bed	Kerb	H	A1
11	<i>Liquidambar styraciflua</i>	16	10	450	5.4	70%	M	Lopped central leader under wires	Garden bed	Kerb	H	Z9
12	<i>Liquidambar styraciflua</i>	12	9	450	5.4	70%	M	Nil	Garden bed	Adjacent structure	M	A1
13	<i>Casuarina cunninghamiana</i>	22	14	600	7.2	80%	M	Included bark, Lopped at 5m, Large epicormic growth	Garden bed	Adjacent building	H	Z5
14	<i>Liquidambar styraciflua</i>	16	12	450	5.4	80%	M	Nil	Garden bed	Kerb	H	A1
15	<i>Casuarina cunninghamiana</i>	20	16	500	6	80%	M	Lopped at 2m, Large epicormic growth	Garden bed	Adjacent building	H	Z5
16	<i>Casuarina cunninghamiana</i>	12	8	350	4.2	80%	M	Close to building	Garden bed	Adjacent building	M	Z2
17	<i>Eucalyptus nicholii</i>	16	14	600	7.2	60%	M	Nil	Garden bed	Adjacent building	H	Z2
18	<i>Casuarina cunninghamiana</i>	9	6	300	3.6	60%	M	Lopped at 3m, Large epicormic growth	Garden bed	Adjacent building	M	Z5
19	<i>Casuarina cunninghamiana</i>	9	6	300	3.6	70%	M	Cambium damage, Poor form	Garden bed	Adjacent building	M	Z9
20	<i>Melaleuca quinquenervia</i>	8	7	450	5.4	60%	M	Lopped under wires	Sealed surfaces	Kerb	M	Z9
21	<i>Corymbia citriodora</i>	16	7	300	3.6	70%	S	Nil	Garden bed	Adjacent building	M	A1
22	<i>Corymbia citriodora</i>	16	7	300	3.6	70%	S	Nil	Garden bed	Adjacent building	M	A1
23	<i>Corymbia citriodora</i>	18	14	350	4.2	80%	M	Nil	Garden bed	Adjacent building	H	A1
24	<i>Melaleuca quinquenervia</i>	6	3	150	2	70%	S	Nil	Garden bed	Nil	L	Z1



No.	Species	Height	Spread	DBH	TPZ	Foliage %	Age class	Defects/Comments	Location	Services	Significance	Tree AZ
25	<i>Corymbia citriodora</i>	20	16	400	4.8	80%	M	Nil	Garden bed	Adjacent building	H	A1
26	<i>Corymbia citriodora</i>	20	16	500	6	80%	M	Nil	Garden bed	Adjacent building	H	A1
27	<i>Harpephyllum cafrum</i>	8	7	250	3	80%	S	Co-dominant	Garden bed	Adjacent building	M	Z1
28	<i>Eucalyptus nicholii</i>	9	9	500	6	60%	O	Acute lean over road	Garden bed	Adjacent building	M	Z4
29	<i>Lophostemon confertus</i>	9	7	300	3.6	90%	S	Nil	Garden bed	Adjacent building	M	A1
30	<i>Corymbia citriodora</i>	26	20	600	7.2	90%	M	Nil	Garden bed	Adjacent building	H	AA1
31	<i>Eucalyptus microcorys</i>	20	16	500	6	90%	M	Nil	Garden bed	Adjacent building	H	A1
32	<i>Eucalyptus microcorys</i>	20	16	500	6	90%	M	Nil	Garden bed	Adjacent building	H	A1
33	<i>Eucalyptus nicholii</i>	9	8	300	3.6	50%	O	Leaning, Acute decline	Garden bed	Adjacent building	M	ZZ4
34	<i>Eucalyptus scoparia</i>	8	7	300	3.6	50%	S	Leaning over road, Acute decline	Garden bed	Adjacent building	L	Z4
35	<i>Eucalyptus botryoides</i>	12	10	350	4.2	80%	M	Leaning	Garden bed	Adjacent building	M	Z9
36	<i>Corymbia citriodora</i>	26	20	600	7.2	90%	M	Nil	Sealed surfaces	Kerb	H	AA1
37	<i>Callistemon sp.</i>	9	6	300	3.6	70%	O	Co-dominant, Basal split	Garden bed	Kerb	L	ZZ5
38	<i>Casuarina cunninghamiana</i>	10	6	200	2.4	70%	S	Included bark	Garden bed	Kerb	L	Z9
39	<i>Callistemon sp.</i>	6	5	200	2.4	50%	M	Failures	Garden bed	Kerb	L	Z5
40	<i>Casuarina cunninghamiana</i>	7	4	200	2.4	70%	S	Nil	Garden bed	Nil	L	Z1
41	<i>Eucalyptus botryoides</i>	24	18	600	7.2	90%	M	Nil	Garden bed	Kerb	H	AA1
42	<i>Callistemon sp.</i>	6	5	200	2.4	60%	O	Nil	Garden bed	Kerb	L	Z4
43	<i>Callistemon sp.</i>	6	5	200	2.4	60%	O	Nil	Garden bed	Kerb	L	Z4
44	<i>Callistemon sp.</i>	6	5	200	2.4	60%	O	Failures	Garden bed	Kerb	L	Z4
45	<i>Casuarina cunninghamiana</i>	8	3	150	2	60%	S	Co-dominant	Garden bed	Kerb	L	Z4
46	<i>Casuarina cunninghamiana</i>	7	4	150	2	70%	S	Nil	Garden bed	Kerb	L	Z1
47	<i>Eucalyptus microcorys</i>	8	5	200	2.4	80%	S	Suppressed canopy	Garden bed	Nil	L	Z1
48	<i>Casuarina cunninghamiana</i>	24	18	1000	12	80%	M	Large branch failure at trunk base, Open wound, Further inspection required	Garden bed	Adjacent driveway	H	Z9
49	<i>Eucalyptus microcorys</i>	20	18	500	6	80%	M	Nil	Sealed surfaces	Kerb	H	A1
50	<i>Lophostemon confertus</i>	14	8	350	4.2	70%	M	Lopped at 3m	Garden bed	Adjacent structure	M	Z9
51	<i>Eucalyptus sideroxylon</i>	14	9	300	3.6	70%	M	Borer	Garden bed	Adjacent structure	M	Z4
52	<i>Corymbia citriodora</i>	24	20	500	6	80%	M	Nil	Garden bed	Adjacent driveway	H	AA1
53	<i>Melaleuca quinquenervia</i>	16	14	700	8.4	80%	M	Nil	Sealed surfaces	Adjacent structure	H	A1



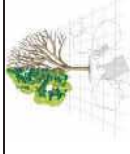
No.	Species	Height	Spread	DBH	TPZ	Foliage %	Age class	Defects/Comments	Location	Services	Significance	Tree AZ
54	<i>Melaleuca quinquenara</i>	16	14	700	8.4	80%	M	Nil	Sealed surfaces	Adjacent structure	H	A1
55	<i>Eucalyptus sideroxylon</i>	12	7	300	3.6	60%	M	Nil	Sealed surfaces	Kerb	M	A1
56	<i>Corymbia citriodora</i>	16	10	300	3.6	70%	M	Nil	Garden bed	Nil	H	A1
57	<i>Eucalyptus microcorys</i>	16	14	450	5.4	80%	M	Lopped at ground level, x3 large epicormic stems	Garden bed	Kerb	H	Z9
58	<i>Melaleuca quinquenara</i>	8	5	250	3	80%	S	Nil	Sealed surfaces	Adjacent driveway	L	Z1
59	<i>Prunus sp.</i>	5	5	300	3.6	60%	O	Nil	Garden bed	Adjacent structure	L	ZZ4
60	<i>Corymbia citriodora</i>	18	14	450	5.4	80%	M	Nil	Garden bed	Adjacent structure	H	A1



Explanatory Notes

- **Measurements/estimates:** All dimensions are estimates unless otherwise indicated. Measurements taken with a tape or clinometer are indicated with a '*'. Less reliable estimated dimensions are indicated with a '?'.
 - **Species:** The species identification is based on visual observations and the botanical name. In some instances, it may be difficult to quickly and accurately identify a particular tree without further detailed investigations. Where there is some doubt of the precise species of tree, it is indicated with a '?' after the name in order to avoid delay in the production of the report. The botanical name is followed by the abbreviation sp if only the genus is known. The species listed for groups and hedges represent the main component and there may be other minor species not listed.
 - **Tree number:** relates to the reference number used on site diagram/report.
 - **Height:** Height is estimated to the nearest metre.
 - **Spread:** The average crown spread is visually estimated to the nearest metre from the outermost tips of the live lateral branches.
 - **DBH:** These figures relate to 1.2m above ground level and are recorded in millimetres. If appropriate, diameter is measured with a diameter tape. 'M' indicates trees or shrubs with multiple stems.
 - **Foliage Cover:** Percent of estimated live foliage cover for particular species range.
 - **Age class:**

Y	Young = recently planted
S	Semi-mature (<20% of life expectancy)
M	Mature (20-80% of life expectancy)
O	Over-mature (>80% of life expectancy)
 - **Tree AZ:** See reference for Tree AZ categories in Appendix 3.
 - **Significance:** A tree's significance/value in the landscape takes into account its prominence from a wide range of perspectives. This includes, but is not limited to neighbour hood perspective, local perspective and site perspective. The significance of the subject trees has been categorized into three groups, such as: High, Moderate or Low significance.



APPENDIX 3

TreeAZ Categories (Version 9.02 A+NZ)

Z Category Z: Unimportant trees not worthy of being a material constraint

Local policy exemptions: Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species

Z1	Young or insignificant small trees, i.e. below the local size threshold for legal protection, etc
Z2	Too close to a building, i.e. exempt from legal protection because of proximity, etc
Z3	Species that cannot be protected for other reasons, i.e. scheduled noxious weeds, out of character in a setting of acknowledged importance, etc

High risk of death or failure: Trees that are likely to be removed within 10 years because of acute health issues or severe structural failure

Z4	Dead, dying, diseased or declining
Z5	Severe damage and/or structural defects where a high risk of failure cannot be satisfactorily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, overgrown and vulnerable to adverse weather conditions, etc
Z6	Instability, i.e. poor anchorage, increased exposure, etc

Excessive nuisance: Trees that are likely to be removed within 10 years because of unacceptable impact on people

Z7	Excessive, severe and intolerable inconvenience to the extent that a locally recognised court or tribunal would be likely to authorise removal, i.e. dominance, debris, interference, etc
Z8	Excessive, severe and intolerable damage to property to the extent that a locally recognised court or tribunal would be likely to authorise removal, i.e. severe structural damage to surfacing and buildings, etc

Good management: Trees that are likely to be removed within 10 years through responsible management of the tree population

Z9	Severe damage and/or structural defects where a high risk of failure can be temporarily reduced by reasonable remedial care, i.e. cavities, decay, included bark, wounds, excessive imbalance, vulnerable to adverse weather conditions, etc
Z10	Poor condition or location with a low potential for recovery or improvement, i.e. dominated by adjacent trees or buildings, poor architectural framework, etc
Z11	Removal would benefit better adjacent trees, i.e. relieve physical interference, suppression, etc
Z12	Unacceptably expensive to retain, i.e. severe defects requiring excessive levels of maintenance, etc

NOTE: Z trees with a high risk of death/failure (Z4, Z5 & Z6) or causing severe inconvenience (Z7 & Z8) at the time of assessment and need an urgent risk assessment can be designated as ZZ. ZZ trees are likely to be unsuitable for retention and at the bottom of the categorisation hierarchy. In contrast, although Z trees are not worthy of influencing new designs, urgent removal is not essential and they could be retained in the short term, if appropriate.

A Category A: Important trees suitable for retention for more than 10 years and worthy of being a material constraint

A1	No significant defects and could be retained with minimal remedial care
A2	Minor defects that could be addressed by remedial care and/or work to adjacent trees
A3	Special significance for historical, cultural, commemorative or rarity reasons that would warrant extraordinary efforts to retain for more than 10 years
A4	Trees that may be worthy of legal protection for ecological reasons (Advisory requiring specialist assessment)

NOTE: Category A1 trees that are already large and exceptional, or have the potential to become so with minimal maintenance, can be designated as AA at the discretion of the assessor. Although all A and AA trees are sufficiently important to be material constraints, AA trees are at the top of the categorisation hierarchy and should be given the most weight in any selection process.

TreeAZ is designed by Barrell Tree Consultancy (www.treeaz.com/tree_az/)

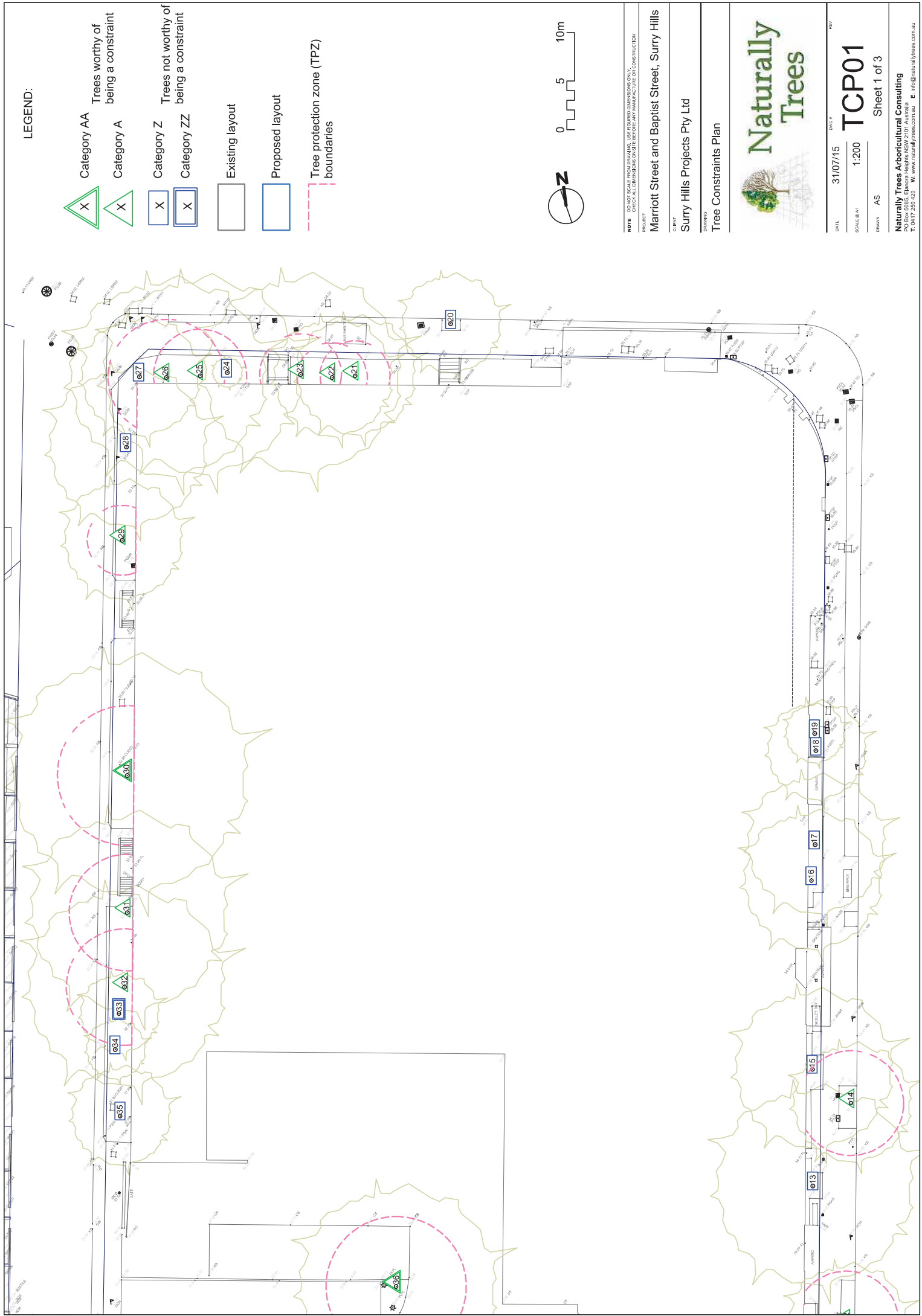


APPENDIX 4

Tree constraints plan

-refer attached Tree Constraints Plan, Dwg No. TCP01,
by Naturally Trees dated 31 July 2015





LEGEND:

- Category AA
Trees worthy of being a constraint
- Category A
Trees worthy of being a constraint
- Category Z
Trees not worthy of being a constraint
- Category ZZ
Trees not worthy of being a constraint
- Existing layout
- Proposed layout
- Tree protection zone (TPZ) boundaries



NOTE DO NOT SCALE FROM DRAWING. USE HORIZONTAL DIMENSIONS ONLY.
WARNING CHECK ALL DIMENSIONS ON SITE BEFORE ANY LANDSCAPE OR CONSTRUCTION

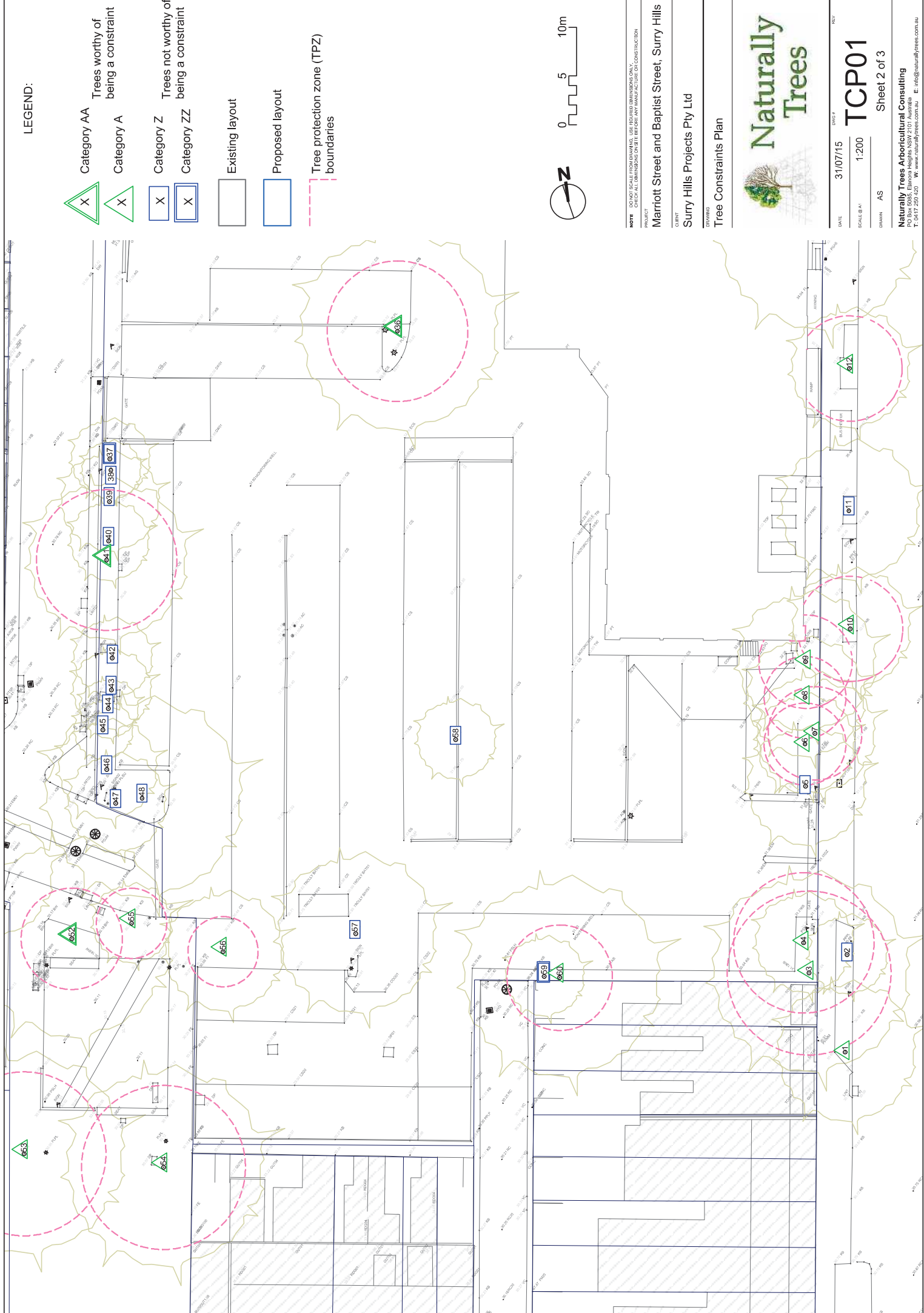
CLIENT
Marriott Street and Baptist Street, Surry Hills

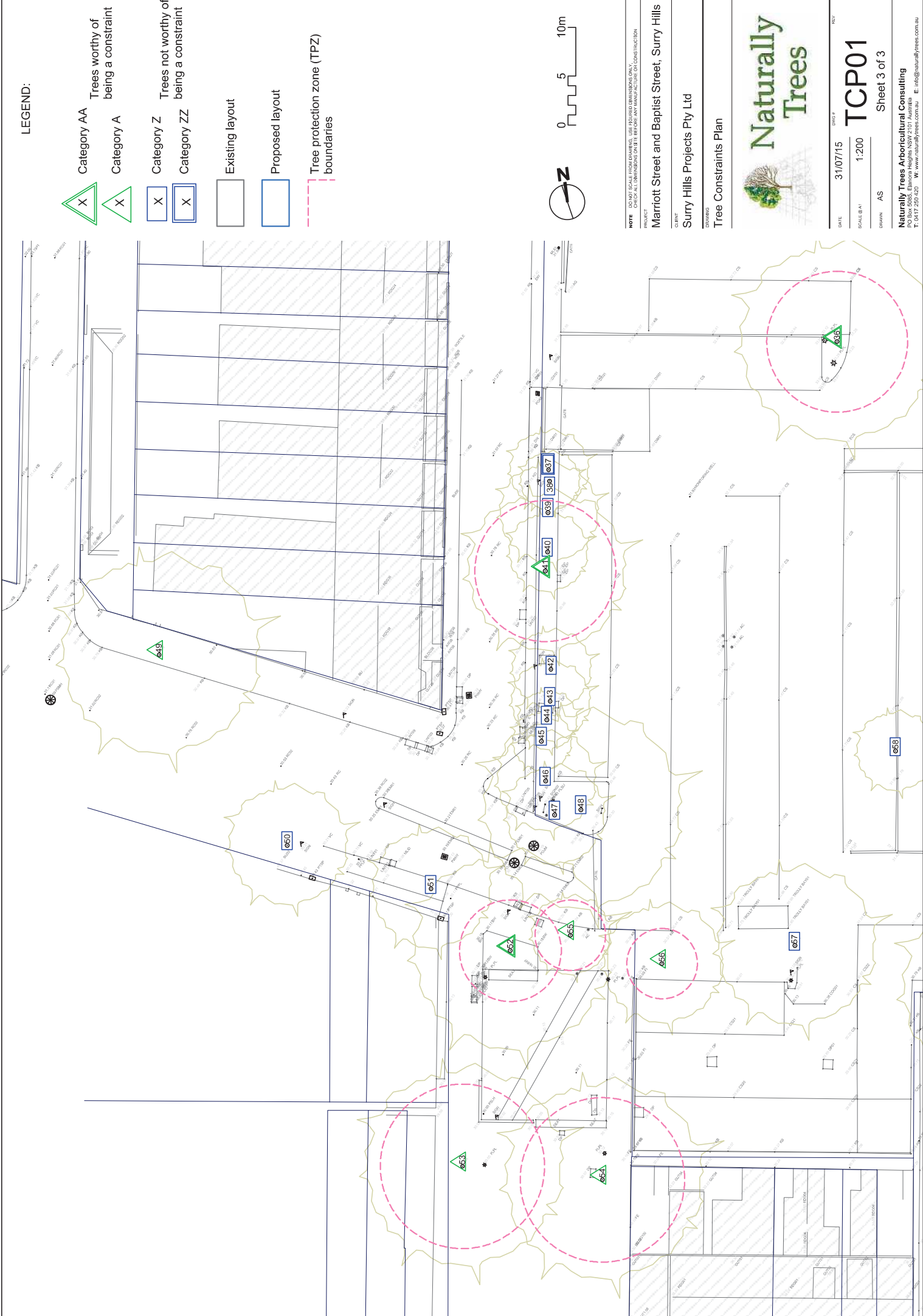
DRAWING
Tree Constraints Plan

DATE 31/07/15
SCALE @ A1 1:200
DRAWN AS

PROJECT
TCP01
Sheet 1 of 3

Naturally Trees
Naturally Trees Arboricultural Consulting
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T: 0417 250 420 W: www.naturallytrees.com.au E: info@naturallytrees.com.au







Appendix N: Landscape Concepts

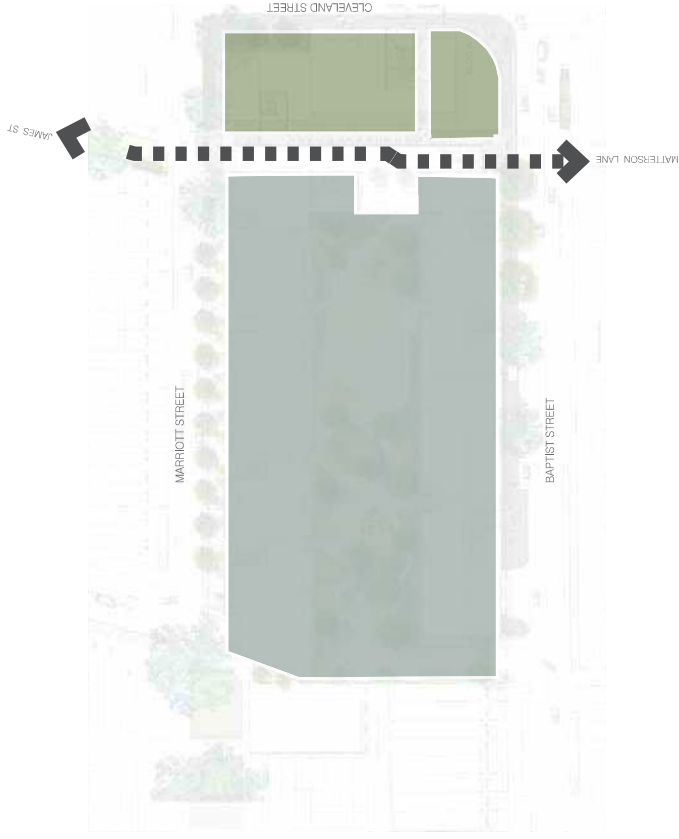
SURRY HILLS SHOPPING VILLAGE

LANDSCAPE CONCEPTS

DECEMBER 2015

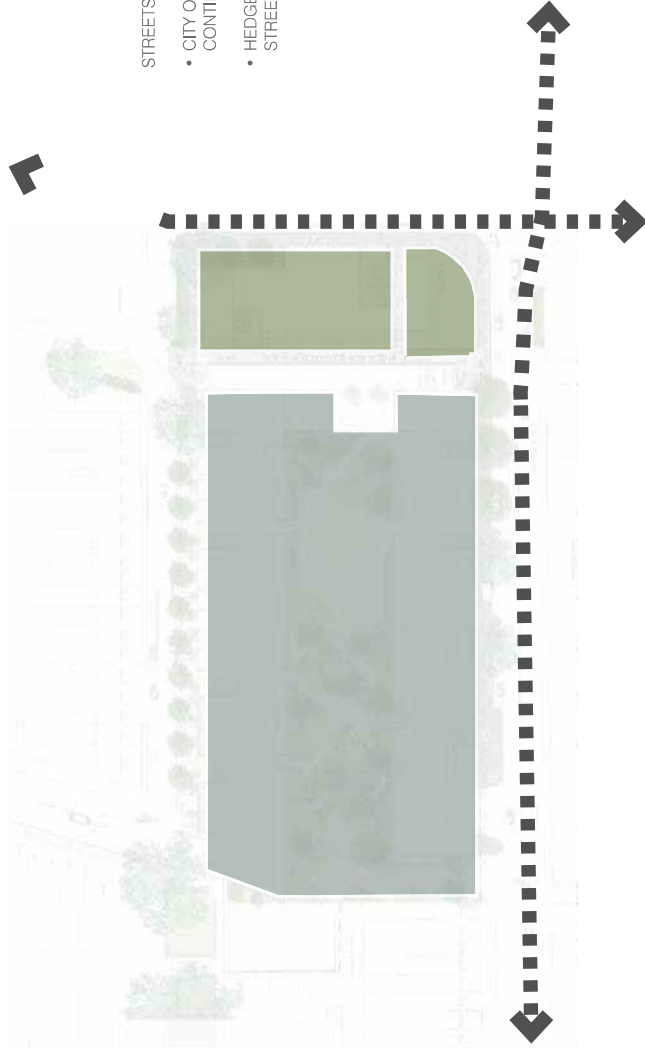
OCULUS

LANDSCAPE PRINCIPLES



LANEWAY CONNECTIONS

- RETAIL LANEWAY TO CONNECT JAMES ST TO MATTERSON LANE
- HIGH QUALITY PAVING TREATMENT TO RETAIL LANEWAY SYMPATHETIC TO HUMAN SCALE
- RETAIL LANEWAY WIDTH TO ALLOW CIRCULATION + OUTDOOR DINING



STREETSCAPE CHARACTER CONTINUATION

- CITY OF SYDNEY PRE-CAST CONCRETE PAVING TREATMENT TO CONTINUE ALONG BAPTIST STREET FROM CROWN ST
- HEDGE PLANTING AND PAVING TREATMENT TO REFLECT RECENT STREETSCAPE WORKS ALONG CLEVELAND STREET

LANDSCAPE CHARACTER



RETAIL LANEWAY



RESIDENTIAL GARDEN



LANDSCAPE MASTERPLAN

SURRY HILLS SHOPPING VILLAGE
LANDSCAPE CONCEPTS

SCALE: 1:500 @ A3



OCULUS

DECEMBER-2015



- CAR PARK ENTRY
- RAISED PLANTER OVER CAR PARK ENTRY
- LOADING DOCK ENTRY
- ARTWORK / SEATING AREA
- LARGE TREE PLANTING
- EXISTING TREE TO BE RETAINED
- OPEN LAWN
- DECK WITH COMMUNAL BBQ
- PROPOSED STREET TREES
- EXISTING LANEWAY

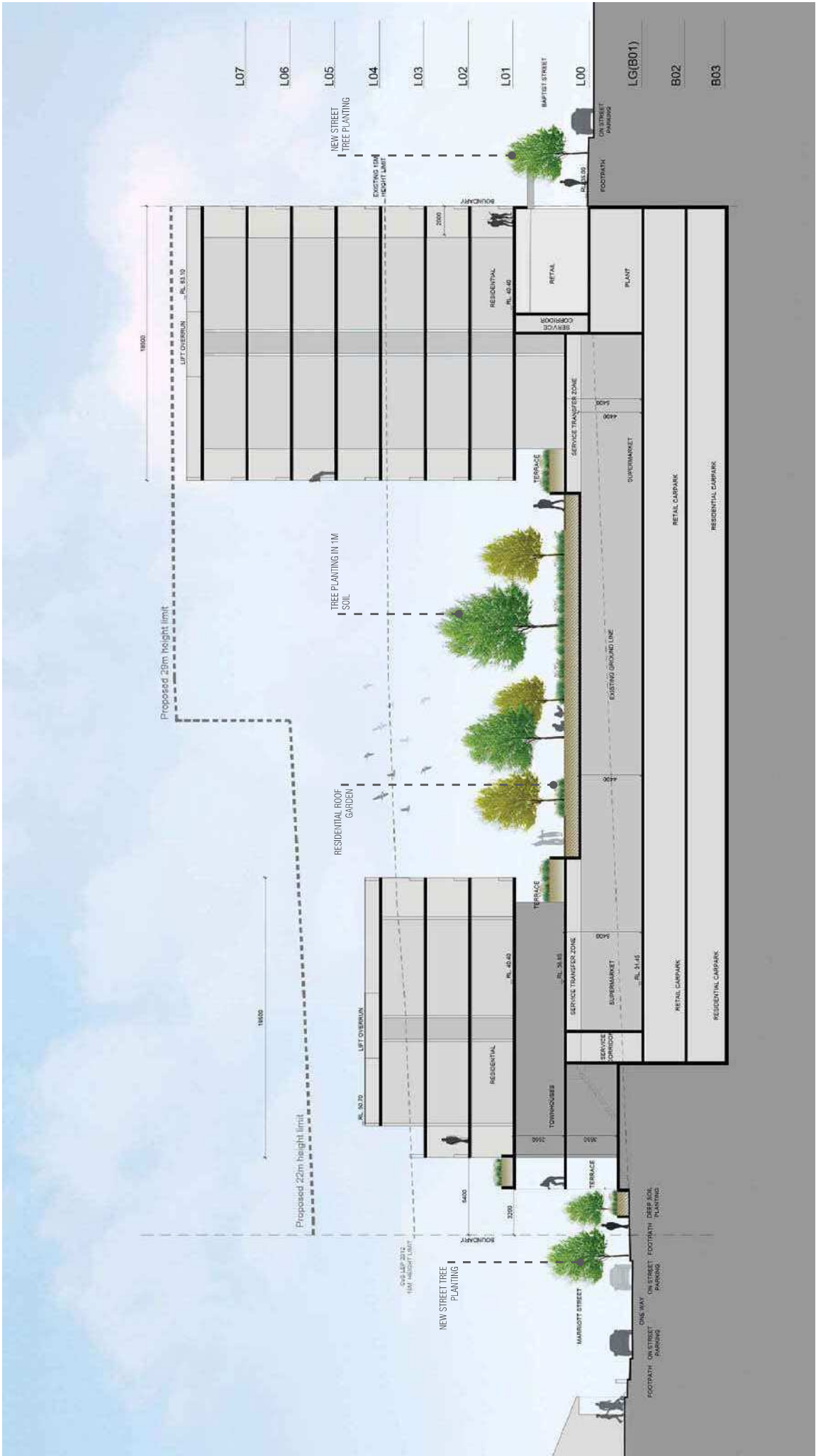
LANDSCAPE MASTERPLAN - UPPER GROUND



CITY OF SONEY
STANDARD PRE
CAST PAVES TO
MATCH CROWN ST



LANDSCAPE MASTERPLAN - LOWER GROUND





Appendix O: Public Art Strategy

Surry Hills Shopping Village Public Art Strategy

The public art component of the new Surry Hills Shopping Village is an opportunity to anchor the new development in the local community and showcase the work of an artist or artists who may not otherwise be visible to the average visitor to the area.

The developers, Toga, as evidenced by a visit to their corporate headquarters, is a company already invested in the Australian visual arts, with emphasis on indigenous art, and the company would like the redevelopment of the Surry Hills Shopping Village to take this interest to a grander scale by incorporating art across the pedestrian spaces around and through the site.

Toga envisages this development to be an opportunity for artists, established or emerging, who have not previously worked beyond a domestic scale. The aim isn't to simply scale up existing works but to help artists realise works in a media they haven't tackled before and invest in developing new techniques to incorporate art works structurally into a building.

Toga will be encouraging public art concepts that make use of the space around and above the laneway through the retail area, especially if in conjunction with innovative façade treatments.

The resulting work/s will improve the experience for those passing or visiting the site and help the new development become a welcome addition to an area of Sydney with a rich and varied heritage.