AUSTRALIS
Tree Management

Arboriculture Impact Assessment

RIDBC Centre for Excellence
Culloden Road, Macquarie University

Commissioned By: Royal Institute for Deaf and Blind Children (RIDBC)

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2 October 2020

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Summary

Australis Tree Management has been commissioned by Royal Institute for Deaf and Blind Children (RIDBC) to complete an arboriculture impact assessment. This report aims to identify the health and condition of the trees, potential impacts from proposed works and to provide impartial recommendations regarding tree retention, protection and removals.

The inspection performed by visibly inspecting the trees from accessible points at ground level and assessing the supplied proposed plans.

In total two hundred and eighty-seven (287) trees were assessed.

- One-hundred and sixty-six (166) trees are located on the subject site and proposed for retention
- One-hundred and twenty-one (121) trees on site are proposed for removal or relocation as they are located within or close to the proposed development envelope
- Two-hundred and sixty-seven (267) trees are protected by council
- Twenty (20) trees are exempt from council protection
- Fifteen (15) trees on site are dead. Prior to removal the dead trees should be assessed by an ecologist to comment regarding habitat capabilities and management.

Trees proposed for retention within the subject site will require tree protection measures throughout the development works to ensure their long-term survival.

The tree defects and symptoms that were encountered have been discussed and a detailed tree schedule is included in Appendix A. A Tree Protection Plan has been prepared containing specifications related to the proposed works.

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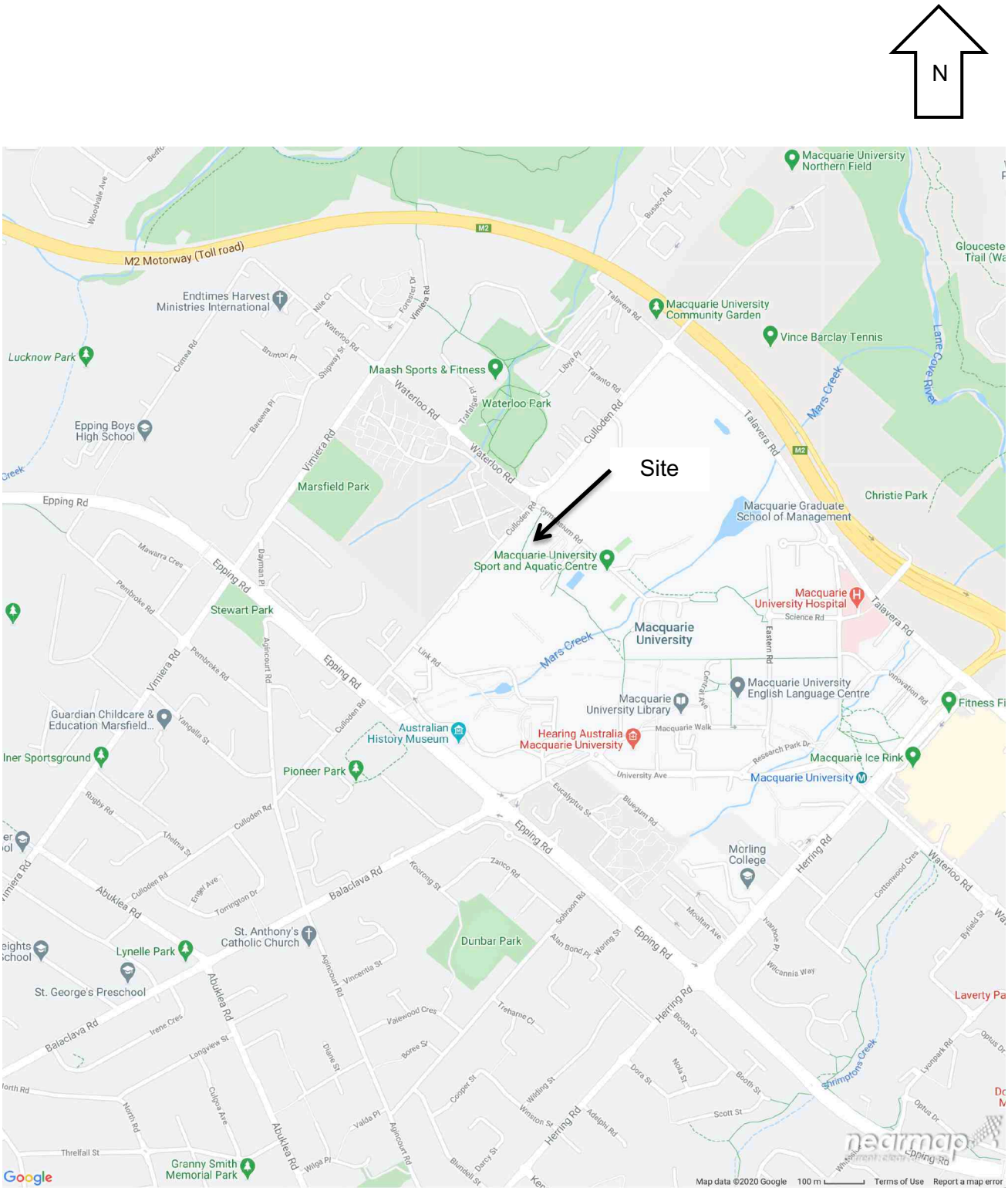
Abbreviations & Glossary

Abbreviation	Term	Definition
DBH	Diameter at breast height	The diameter of a tree's stem typically measured with a diameter tape at 1.4 metres height
DCP	Development Control Plan	
ENCR	Encroachment	AS4970-2009 Protection of trees on development sites – Propose or existing TPZ encroachments
LEP	Local Environmental Plan	
LGA	Local Government Authority	
SRZ	Structural Root Zone	The SRZ is the area required for tree stability. A larger area is required to maintain a viable tree.
TPP	Tree Protection Plan	Showing the TPZs for trees being retained taking into account the proposed development.
TPZ	Tree Protection Zone	The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.

Location Map

Culloden Road, Macquarie University



Source – Near Map 14 September 2020
Figure 1. Location Map

Site Map

RIDBC Centre for Excellence Proposed Site
Culloden Road, Macquarie University

Source – Near Map 14 September 2020
Figure 2. Site Map

1 Introduction

1.1 The Client

The Royal Institute for Deaf and Blind Children (RIDBC) is a not for profit organisation that offers a broad range of specialist services and therapies for children (and adults) together with flexible support options.

RIDBC is Australia's largest non-government provider of education, therapy and cochlear implant services for children (and adults) with vision or hearing loss. They provide support to affected children and adults, their families and the professionals who support them through services such as:

- Assessment and diagnostics – including paediatric audiology
- Early intervention services / early learning programs – assisting with diagnosing babies and/or young children with hearing and/or vision impairment, including research, postgraduate and professional education
- Specialist preschools, schools and school support – including teleschools and telepractice programs
- Allied health and therapy services – including rehabilitation
- SCIC Cochlear implant program
- Remote services

RIDBC provide hearing and vision services to more than 8,000 people annually. They also screen over 3,000 children and are involved with over 4,000 cochlear implants each year.

RIDBC's mission is "to provide quality and innovative services, to achieve the best outcomes for current and future generations of Australians with vision or hearing loss", by developing, delivering and demonstrating best practice in everything they do.

RIDBC have published their 2016-2020 Strategic Intent which sets out a pathway by which they intend to:

1. Reach more people by exploring industry partnerships, merger and acquisition, synergistic alliances and new program and service developments;
2. Deliver best practice by building Centres of Excellence to develop, deliver and demonstrate best practice services and support of people with vision of hearing loss; and Secure their future by continuing to strengthen their identity and operations whilst remaining relevant and responsive to the needs of the children, adults, families and professionals who rely upon them.

RIDBC have determined that their mission can be achieved by relocating their head offices, services and support functions within the Macquarie University precinct and by developing a new affiliation agreement with the new RIDBC Renwick Centre program within the Macquarie University academic structure.

The Centre of Excellence will support The Cochlear Implant Centre at the Hearing Hub and the Master of Disability Services course, together with other faculties at MQ including Departments of Education and Linguistics & Cognitive Science.

Committing to developing a new Centre of Excellence that delivers on best practice principles and relocating its entire head office base to the site at Culloden Road at Macquarie Park, where it has strong associations with MQ, is therefore vital to RIDBC's mission.

1.2 Project Description

The RIDBC is Australia's largest non-government not-for-profit provider of therapy, education and cochlear implant services for children and adults with vision or hearing loss. Established in 1861 as a school with residential facilities, the RIDBC moved to North Rocks in 1961, where the main campus is still located. The RIDBC Mission is to provide quality and innovative services, to achieve the best outcomes for current and future generations of Australians with vision and/or hearing loss.

As part of the RIDBC's 2016-2020 Strategic Intent it will relocate its school and clinical services activities from North Rocks to a purpose-built centre at Macquarie University (MQU). The new Centre of Excellence will further strengthen the relationship between MQU and the RIDBC, benefit the Australian Hearing Hub, and reinforce the cluster of research, audiology, and healthcare which already exists on the campus, which also includes the Cochlear Global headquarters.

The proposed development generally seeks consent for the construction and operation of the new purpose-built 1-3 storey (including basement level) Centre of Excellence across two interconnected pavilions at the corner of Culloden and Gymnasium Road within the MQU Campus.

The development includes:

- Pre-School and School accommodation for up to 80 pre-school children and up to 120 school children in a single storey pavilion addressing Culloden Road; and
- The main RIDBC building (accommodating approximately 260 staff) of up to three storeys, including basement level:
    - Public areas for staff and visitors;
    - RIDBC Renwick Centre classrooms (doubling also as conferencing facilities) and a business hub;
    - Medical Facility for various clinical services; and
    - RIDBC Renwick Centre resource centre; use between RIDBC Renwick Centre staff, clinicians and pre-school / primary school teaching staff.

In accordance with Schedule 1 (clause 15 (1)) of State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP), the development qualifies as State Significant Development (SSD) as it is a development for the purpose of a new school (regardless of the capital investment value).

1.3 Brief

Royal Institute for Deaf and Blind Children (RIDBC) provided instructions to inspect and assess the health and condition of the selected trees at Culloden Road, Macquarie University, including any tree within the vicinity of the proposed works. I have prepared an Arboriculture Impact Assessment on the proposed impacts of the development works on the subject trees. The report will provide recommendations regarding tree protection during the development process.

1.4 Aims

- Undertake field surveys for tree health and condition.
- Conduct a literature review on the tree defects and symptoms.
- Search databases for relevant tree species information including Tree Preservation Orders.

1.5 Qualifications and Experience

This report has been based upon site observations and the assessment of the subject trees. Conclusions have been reached from experience and follow up research. Qualification details are included in the appendix.

1.6 Documents Provided

The following table shows the documents used to determine impacts from the proposed works. Hydraulics and landscaping plans were not supplied.

Source	Date	Document
Antonio Galasso (M Projects)	15/9/2020	30431 222DT 15-09-20.PDF
	18/9/2020	200917_RIDBC_ArchitecturalConceptPlan_Drawings.PDF
	25/9/2020	200925_19181_RIDBC_Pre-SSDA Drawing Set.PDF
	2/10/2020	20-10-01 Preliminary Cut and Fill Assessment.PDF
Michaela Coe (WMK Architecture)	2/10/2020	19181_A101(3)_OVERALL PLAN – GROUND.pdf 19181_A112(4)_FLOOR PLAN - ZONE 2 - UPPER GROUND.pdf

Table 1. Documents Provided

1.7 Scope

This report is only concerned with the health and condition of the subject trees and the potential impacts from the proposed development. Root mapping, invasive structural strength of the trees, soils assessments or aerial inspections were not performed. This report has been prepared in accordance with Ryde City Council. It includes a detailed assessment based on the site visit and the documents provided.

Recommendations may be provided regarding alterations to the proposed design or construction methods to mitigate detrimental impacts on the subject trees. Only trees which qualify as a being protected under Ryde City Council's Part 9 - Tree Preservation (2014) have been included in the body of this report. All tree species assessed (including unprotected trees) are located in the 'Tree Schedule' in Appendix A.

2 Methodology

2.1 Methods

The following relevant information was compiled for consideration of the proposed works. Details are located in the appendices.

- AS 4970- 2009 Protection of trees on development sites
- AS 4373 - 2007 Pruning of amenity trees
- Tree Survey Form (Matheny & Clark, 1994)
- Visual Tree Assessment (Mattheck & Breloer, 1994)

2.2 *TreeAZ* (Barrell, 2016)

- **TreeAZ 'A'** - Moderate and high-quality trees suitable for retention for more than 10 years, and worthy of being a material constraint
- **TreeAZ 'Z'** - Low quality trees not worthy of being material constraint

2.3 Information Collected

Information collected includes tree species, dimensions, tree health and condition, tree assessment ratings and tree protection zones etc. Trees located on adjoining properties will be inspected from the ground on the subject site or public land only. All relevant information is included in the Tree Schedule (Appendix A). The 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.

2.4 Species Identification

Identification of the subject trees are determined by visible features only at the time of the inspection. Every effort is made to correctly identify the subject trees where time permits. Photographs are compared with varying text listed in 'References'.

2.5 Tree Measurements - AS 4970-2009

In accordance with AS 4970-2009 tree trunk diameters were measured with a diameter tape at 1.4m high (unless stated). Tree heights are measured with a clinometer and canopy spreads estimated accordingly.

2.6 Tree Protection Zone - AS 4970-2009

The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable. If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ, detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.

2.7 Photography

A Nikon D5200 SLR camera or an iPhone were used. In low light levels photographs maybe altered to improve visual quality, this involves adjustments to exposure, contrast, reduction of shadows and increased sharpness. No adjustments to vibrancy that alter natural colours were applied.

2.8 Proposed Pruning

All pruning specifications are written in compliance of *AS 4373 - 2007 Pruning of amenity trees* and should be carried out in accordance with *AS 4373 - 2007* and Workcover NSW Code of Practice '*Amenity Tree Industry*', 1998. Definitions for all terminology used in this report are taken from *AS 4373 - 2007 Pruning of amenity trees, AS 4970- 2009 Protection of trees on development sites* and the International Society of Arboriculture's Glossary of Arboricultural Terms.

2.9 Vegetation

Vegetation types have been determined using a variety of methods depending on the location and LGA. Depending on the sources results can vary and should be used as a guide only.

2.10 Wildlife

Interactions between the tree and possible fauna were examined to the best of my ability through text listed in the references. An expert opinion may be required confirm or deny any fauna activities.

3 Site Visit and Observations

3.1 Field Visit

The unaccompanied site visits were conducted during August and September 2020. All observations were from ground level without detailed investigations. The weather at the time of the inspections varied from clear, still and dry with good visibility to cloudy, windy and damp with average visibility.

3.2 Brief Site Description

The proposed site in Macquarie University grounds is located approximately 18km from Sydney. The property consists of open grassed areas with a pathway through the centre of the site. Thick tree plantings throughout. The site slopes downwards from the front to the north west to the south east and is exposed to the south west.

3.3 Location of the Trees

The trees in question are located predominately around the boundaries of the site. The trees have been located on the supplied site plan and numbered according to the existing tags on the trees.

3.4 On Site Vegetation

The site contains planted native and exotic tree species. They are of varying ages and stages of maturity. There does not appear to have any remnant vegetation on site. The subject site has been highly modified with the removal of native under storey and ground cover plants and shrubs. The subject dominant trees together with other indigenous trees in the surrounding residences are lightly connected to ecological communities nearby.

Figure 3. View towards the south east

4 Policies

4.1 Vegetation in Non-Rural Areas [NSW] (2017)

The State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 includes provisions requiring the preservation of trees and bushland within Ryde City Council LGA.

3 Aims of Policy

The aims of this Policy are:

(a) to protect biodiversity values of trees and vegetation in non-rural areas of the State, and

(b) to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.

4.2 Tree Protection

This report relies on the information contained within Ryde City Local Environmental Plan and Development Control Plan. This report may include trees on adjoining properties that are likely to be impacted by the proposed development regardless of the definition contained in the LEP and DCP.

4.2.1 Tree Preservation

The subject trees are protected under Ryde City Council's DCP (2014), part 9.5 - Tree Preservation. Council consent is required for the pruning or removal of:

- *Any tree, whether on private or public land (land owned or under the care, control and management of the City of Ryde), with a height greater than 5 metres and a trunk circumference of 450mm at 1.4 metres above ground level.*
- *Native vegetation within defined 'Urban Bushland'.*
- *Trees, which are prominent or have landmark qualities due to their height, size, position and age.*
- *Trees, which are part of an important wildlife habitat, refuge or corridor.*
- *Native bushland subject to controls under State Environmental Planning Policy 19.*
- *Trees on the City of Ryde Significant Tree Register*

4.2.2 Exempt Species

The following tree species are listed in councils' list of exempt species, exempt of works or undersized. Council permission is not required for their removal.

- Tree No. 2239.4 *Camellia reticulata* (Reticulata Camellia) - undersize
- Tree No. 2371 *Cinnamomum camphora* (Camphor Laurel) - exempt species
- Trees No. 2234 & 2328.1 *Eucalyptus sp* (Gum Tree) - undersized
- Tree No. 2370 *Ligustrum lucidium* (Broad Leaf Privet) - exempt species
- Trees No. 2239, 2239.1, 2239.2 & 2239.3 *Olea europaea* subsp. *communis* (European Olive) - exempt species
- Tree No. 2368 *Olea europaea* subsp. *cuspidata* (African Olive) - exempt species
- Trees No. 2232, 2233. 2251, 2253, 2272, 2274, 2300, 2335, 2356 & 2416 Dead Trees with no hollows - exempt

4.3 Threatened Species

Eucalyptus scoparia (Wallangarra White Gum) is listed in the NSW Biodiversity Conservation Act (2016) or The Environment Protection and Biodiversity Conservation Act (1999). It is a horticultural planting and the specimens are of no relevance to the conservation of the species.

- Trees No. 2393 & 2401 *Eucalyptus scoparia* (Wallangarra White Gum)
  - Conservation status in NSW: Endangered (BC Act 2016)
  - Commonwealth: Vulnerable (EPBC Act 1999)

4.4 Biosecurity Act 2015

The following tree species are listed in the Biosecurity Act 2015 and classed as 'General'. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable. Council permission is not required for their removal.

- Tree No. 2371 *Cinnamomum camphora* (Camphor Laurel)
- Tree No. 2370 *Ligustrum lucidium* (Broad Leaf Privet)
- Trees No. 2239, 2239.1, 2239.2 & 2239.3 *Olea europaea* subsp. *communis* (European Olive)
- Tree No. 2368 *Olea europaea* subsp. *cuspidata* (African Olive)

5 Results

5.1 Unprotected Trees

Tree no.	Species
2232, 2233, 2251, 2253, 2272, 2274, 2300, 2335, 2356, 2416	Dead Tree (no hollows)
2234, 2328.1	*Eucalyptus sp* (Gum Tree)
2239, 2239.1, 2239.2, 2239.3	*Olea europaea* var. *communis* (European Olive)
2239.4	*Camellia reticulata* (Reticulata Camellia)
2368	*Olea europaea* subsp. *cuspidata* (African Olive)
2370	*Ligustrum lucidium* (Large Leaf Privet)
2371	*Cinnamomum camphora* (Camphor Laurel)

Table 2. Unprotected Trees

5.2 Trees Species

Tree Species	Number of Trees
Callistemon viminalis (Weeping Bottlebrush)	3
Corymbia citriodora (Lemon-scented Gum)	25
Corymbia maculata (Spotted Gum)	13
Eucalyptus botryoides (Bangalay)	11
Eucalyptus globulus subsp *bicostata* (Southern Blue Gum)	1
Eucalyptus leucoxylon (Yellow Gum)	1
Eucalyptus microcorys (Tallowwood)	119
Eucalyptus parramattensis (Parramatta Red Gum)	2
Eucalyptus pilularis (Blackbutt)	1
Eucalyptus saligna (Sydney Blue Gum)	70
Eucalyptus scoparia (Wallangara White Gum)	2
Eucalyptus sp (Gum Tree)	3
Eucalyptus tereticornis (Forest Red Gum)	1
Ficus microcarpa var. *hillii* (Hills Weeping Fig)	3
Harpephyllum caffrum (Kaffir Plum)	1
Lophostemon confertus (Queensland Brush Box)	6

Table 3. Tree Species

5.3 Tree AZ

- **TreeAZ 'A'** - Moderate and high-quality trees suitable for retention for more than 10 years, and worthy of being a material constraint
- **TreeAZ 'Z'** - Low quality trees not worthy of being material constraint

Tree AZ		Number of Trees
A	All trees that are not categories ZZ or Z	199
Z1	Young or insignificant small trees	29
Z3	Deteriorating health with little realistic prospect of recovery	14
Z4	Deteriorating structural conditions	16
Z8	No future potential: Poor condition or location with no realistic potential for recovery or improvement	1

Table 4. Tree AZ

5.4 Trees Selected for Retention

5.4.1 Life Expectancy and Tree AZ

	Tree AZ							
Life Expectancy	**Habitat**	**A**	**Z**	**Z1**	**Z3**	**Z4**	**Z8**	**Total**
Dead	3	0	9	0	0	0	0	**12**
<5yrs	1	0	0	0	2	0	0	**3**
5-15yrs	0	0	0	3	6	2	0	**11**
15-40yrs	1	11	0	6	3	4	1	**26**
40+yrs	0	104	0	10	0	0	0	**114**
Total	**5**	**115**	**9**	**19**	**11**	**6**	**1**	**166**

Table 5. Life Expectancy and TreeAZ

5.4.2 Trees Proposed for Retention with Minor TPZ Encroachments

Tree no.	Species	Prop Encr
2247	*Eucalyptus microcorys* (Tallowwood)	9%
2249	*Eucalyptus saligna* (Sydney Blue Gum)	4%
2268	*Eucalyptus microcorys* (Tallowwood)	8%
2295	*Eucalyptus saligna* (Sydney Blue Gum)	2%
2331	*Eucalyptus botryoides* (Bangalay)	4%
2336, 2446, 2448	*Eucalyptus microcorys* (Tallowwood)	4%
2388	*Corymbia citriodora* (Lemon-scented Gum)	7%
2389, 2404, 2406	*Corymbia citriodora* (Lemon-scented Gum)	1%
2393	*Eucalyptus scoparia* (Wallangara White Gum)	2%
2396	*Corymbia citriodora* (Lemon-scented Gum)	4%
2399	*Eucalyptus microcorys* (Tallowwood)	3%
2401	*Eucalyptus scoparia* (Wallangara White Gum)	7%
2472, 2408, 2480	*Eucalyptus microcorys* (Tallowwood)	1%
2447	*Eucalyptus microcorys* (Tallowwood)	10%
2459 2487	*Eucalyptus saligna* (Sydney Blue Gum)	1%
2466	*Eucalyptus saligna* (Sydney Blue Gum)	10%
2467	*Eucalyptus saligna* (Sydney Blue Gum)	6%
2491	*Ficus microcarpa* var. *hillii* (Hills Weeping Fig)	7%

Table 6. Trees Proposed for Retention with Minor Encroachments

5.4.3 Trees Proposed for Retention with Major TPZ Encroachments

Tree no.	Species	Prop Encr
2242, 2250	*Eucalyptus saligna* (Sydney Blue Gum)	17%
2278	*Eucalyptus saligna* (Sydney Blue Gum)	14%
2296, 2464	*Eucalyptus saligna* (Sydney Blue Gum)	15%
2332	*Eucalyptus microcorys* (Tallowwood)	13%
2351, 2352	*Eucalyptus microcorys* (Tallowwood)	18%
2405	*Eucalyptus microcorys* (Tallowwood)	13%
2444	*Eucalyptus microcorys* (Tallowwood)	24%
2447	*Eucalyptus microcorys* (Tallowwood)	10%

Table 7. Trees Proposed for Retention with Minor Encroachments

5.5 Trees Selected for Removal

5.5.1 Life Expectancy and Tree AZ

		Tree AZ						
Life Expectancy	**Habitat**	**A**	**Z**	**Z1**	**Z2**	**Z3**	**Z4**	**Total**
Dead	2	0	1	0	0	0	0	**3**
<5yrs	0	0	0	0	0	0	0	**0**
5-15yrs	0	0	0	1	0	2	1	**4**
15-40yrs	0	9	0	12	0	1	9	**31**
40+yrs	0	76	0	5	1	0	1	**83**
Total	**2**	**85**	**1**	**18**	**1**	**3**	**11**	**121**

Table 8. Life Expectancy and Tree AZ

5.5.2 Trees Proposed for Removal with Major TPZ Encroachments

Tree no.	Species	Prop Encr
2287, 2443, 2473	*Eucalyptus microcorys* (Tallowwood)	34%
2285, 2486	*Eucalyptus microcorys* (Tallowwood)	24%
2328	*Eucalyptus botryoides* (Bangalay)	22%
2353	*Eucalyptus saligna* (Sydney Blue Gum)	25%
2355	*Eucalyptus saligna* (Sydney Blue Gum)	24%
2386	*Corymbia citriodora* (Lemon-scented Gum)	27%
2387	*Corymbia citriodora* (Lemon-scented Gum)	43%
2394	*Corymbia citriodora* (Lemon-scented Gum)	42%
2407	*Eucalyptus microcorys* (Tallowwood)	37%
2440	*Callistemon viminalis* (Weeping Bottlebrush)	46%
2457	*Eucalyptus microcorys* (Tallowwood)	20%
2468	*Corymbia citriodora* (Lemon-scented Gum)	31%
2469	*Corymbia citriodora* (Lemon-scented Gum)	44%
2471	*Eucalyptus saligna* (Sydney Blue Gum)	50%
2472	*Eucalyptus microcorys* (Tallowwood)	50%

Table 9. Trees Proposed for Removal with Major Encroachments

5.6 Habitat Trees Selected for Relocation

Tree no.	Species
2240	*Eucalyptus saligna* (Sydney Blue Gum)
2297	*Eucalyptus saligna* (Sydney Blue Gum)
2438	Dead Tree
2488	Dead Tree

Table 10. Habitat Trees Selected for Relocation

6 The Proposed Development

The proposed development construction is for a 1-3 storey (including basement level) and two interconnected pavilions.

6.1 Tree Tolerance

6.1.1 Generally, older and larger trees tolerate construction impacts less. Different species also have different tolerance of injury and disturbance. Importantly it needs to be stressed, that a tree does not “heal” from injury as animals do. Any injury made to a tree results in the tree expending considerable energy reserves to create new growth that “seals” and surrounds a wound and then attempting to compensate structurally and physically for any losses. Impacts to trees are therefore cumulative and a series of otherwise small and unrelated impacts can easily result in the death of a tree.

6.1.2 A tree that is already compromised or showing signs of stress is far less likely to tolerate construction impacts due to its lower levels of energy reserves and already weakened state. Therefore, a tree that is only in a fair condition or poor condition is less likely to tolerate construction impacts than a young tree in good or excellent condition.

6.1.3 Weakened or stressed trees are also far less able to combat the myriad of normal environmental stresses and pathogens that are naturally imposed against them such as drought, decay, fungi, bacteria and insect pests.

6.1.4 The site works proposed will result in extensive site disturbance, excavation and re-grading. This means that some trees will require removal. Only those trees that have a reasonable and practical chance of being successfully retained have been targeted for retention and protection.

6.2 Cut and Fill

6.2.1 Soil cutting damages and removes absorbing and r *anchoring* oots which can jeopardise the stability of the tree as well as causing stress and the tree may not survive.

6.2.2 Soil compaction causes stress to trees and may reduce their life expectancies. Non woody, fibrous roots are located in the top layer of the soil and require oxygen to respire. Roots and beneficial mycorrhizal fungi begin to die as the top layer of soil is compacted.

6.2.3 Placing fill around tree trunks (even as little as 10mm) will reduce gaseous exchange resulting in stress to the tree, where disease and decay may develop in dying roots resulting in tree instability and death.

6.2.4 These detrimental cut and fill impacts affect Trees No. 2388, 2389, 2444, 2467, 2466, 2472, 2480 & 2487 that are selected for retention, therefore altered design

and protection measures must be applied to provide long term survival of these trees.

6.3 Building Construction

6.3.1 The proposed building construction, paths, play areas, retaining walls and soil battering activities are likely to result in major site disturbances and may cause detrimental impacts to the subject trees. Generally, soil disturbances occur at a minimal 1.5m from the construction works to included service installation and scaffolding. Soil compaction can occur with foot traffic as well as machinery, which reduces available water and oxygen to penetrate the root zone resulting in stress and possible death to the tree.

6.4 Raised Deck

6.4.1 The proposed raised deck installation may result in root system disturbances and may cause detrimental impacts to the subject trees. Support posts must be hand excavated within any TPZ to avoid roots greater than 40mm in diameter. The deck surface must allow moisture to reach the root zone.

6.5 Soil Water Availability

6.5.1 Trees adapt to the existing distribution of soil water in its own particular situation and to the usual fluctuations of water supply that exists. Newly constructed roads, paths, roofs and other impermeable surfaces located upslope from trees prevent rain water from entering the soil and seeping downslope to trees. Therefore, removing rainwater and redirecting soil water will lead to a deterioration in health and reduced life expectancy for approximately thirty (30) trees located the down slope from the development in the south eastern area of the site. Mulching and irrigation should be installed to replenish the loss in soil moisture.

6.6 Wind Exposure

6.6.1 Trees growing in dense stands become prone to windthrow when surrounding trees are removed, which exposes the remaining trees to the full force of the wind. Trees growing in an open environment are generally shorter and strongly tapered. The construction of buildings adjacent to trees results in the removal of surrounding trees that provide protection. Buildings also alter to natural wind directions. These changes are likely to increase wind stresses on retained trees, which may result in branch failures until the tree has time to adapt and strengthen to the new conditions. Trees located within the southern and south eastern parts of the site will be susceptible to these changes.

6.7 Landscaping

6.7.1 Proposed landscaping installation must NOT alter soil levels within TPZ’s, this includes the addition of garden mixes and planter boxes. By raising existing soils levels gaseous exchange is reduced resulting in stress to the tree and can significantly reduce the trees life expectancy. These signs may not be visible for

some time. The installation of new plants can significantly damage fibrous roots, therefore reducing the trees ability to absorb moisture and nutrients. All new plantings within the SRZ must be tube stock or envirocells size and within the TPZ no larger than 140mm pot size.

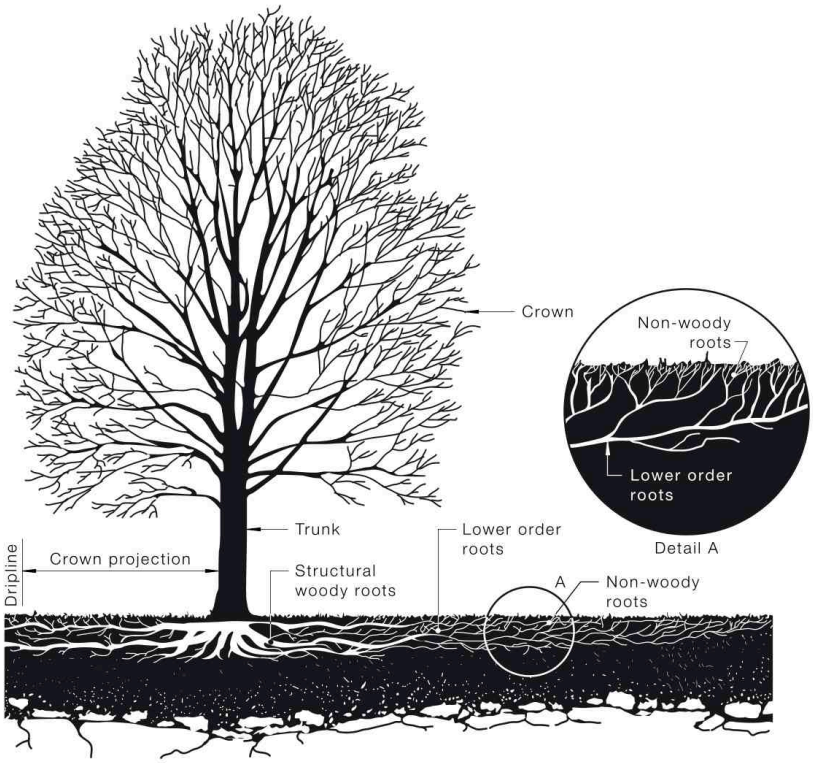


Figure 4. Tree Anatomy

7 Discussion

7.1 Dominant Tree Species

7.1.1 *Eucalyptus microcorys* (Tallowwood) is a native tree naturally occurring from the Central Coast of NSW north into Queensland (Benson & McDougall, 1995).

7.1.1.1 This species makes up 45% of all trees assessed. There are one hundred and nineteen (119) trees in total with ninety-five (95) trees being semi mature to mature in age. One-hundred and five (105) trees have a life expectancy of 40+ years.

7.1.1.2 The majority of the species show similar structural issues such as included bark with branch unions. This is where the wood from each limb grows against each other and create a weak union. In some cases, these unions can fail but this is dependent on the production of strengthening wood and microorganism activity within the union.

7.1.2 *Eucalyptus saligna* (Sydney Blue Gum) is a native tree naturally occurring from mainly Gosford–Wyong area, and Sydney's North Shore (Benson & McDougall, 1995).

7.1.2.1 This species makes up 26% of all trees assessed. There are seventy (70) trees in total with sixty-two (62) trees being semi mature to mature in age. Forty-one (41) trees have a life expectancy of 40+ years.

7.1.2.2 Commonly the trees have varying levels of deadwood and epicormic growth within their canopies. This can be a sign of stress and decline of found to be excessive. Many trees have suffered from numerous pruning events with canopies being lifted resulting in a reduction of live crown ratio percentages which increases pressure caused by strong winds.

7.1.3 Tree No. 2288 *Eucalyptus saligna* (Sydney Blue Gum) is a semi mature tree with a life expectancy of less than 5 years. The tree has suffered from trunk failure at approximately 7m high with the cambial growth covering approximately 40% of the trunk. This tree is not located within the proposed development works and will require further structural and ecological assessment to warrant its retention.

7.1.4 Tree No. 2297 *Eucalyptus saligna* (Sydney Blue Gum) is a mature tree with a life expectancy of between 15-40 years. The tree has suffered from trunk wound at approximately 2m high with fungal fruiting bodies. This tree is also not located within the proposed development works and will require further structural and ecological assessment to warrant its retention.

7.1.5 Tree No. 2430 *Eucalyptus saligna* (Sydney Blue Gum) is a mature tree with a life expectancy of 40+ years. The tree has suffered from a basal trunk wound with canker formation, a wound within a limb union as well as other less severe issues. This tree is also located outside the proposed development works and will require further structural strength assessment to warrant its retention.

7.1.6 Tree No. 2431 *Eucalyptus saligna* (Sydney Blue Gum) is a mature tree with a life expectancy of 40+ years. The tree has suffered from a trunk wound from 0.5m to 1.5m and another trunk wound from 3m to 3.5m. This tree is also not located within the proposed development works and will require further structural strength assessment to warrant its retention.

7.2 Trees Proposed for Retention

7.2.1 One hundred and sixty-six (166) trees are located outside the proposed development envelope and are proposed for retention.

- One-hundred and fourteen (114) of these trees have life expectancies of 40+ years.
- One-hundred and fifteen (115) trees have Tree AZ rating of 'A'.
- Nineteen (19) trees have ratings of Z1 and are either young, small or insignificant.
- Eleven (11) trees are deteriorating in health
- Six (6) trees are considered to be structurally unsound. Further inspections are required to determine their retention value or management.
- Twelve (12) trees are dead with nine (9) trees not containing hollows.

7.2.2 Eleven (11) trees are deteriorating in health require management plans to attempt to increase their current life expectancy.

- Tree No. 2216 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2223 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2247 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2249 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2273 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2289 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2296 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2331 *Eucalyptus botryoides* (Bangalay)
- Tree No. 2393 *Eucalyptus scoparia* (Wallangara White Gum)
- Tree No. 2401 *Eucalyptus scoparia* (Wallangara White Gum)
- Tree No. 2459 *Eucalyptus saligna* (Sydney Blue Gum)

7.2.3 Six (6) trees that are considered to be structurally unsound require further testing and inspections to determine their viability. These trees have varying trunk wounds, numerous previous failures, trunk failures etc. These trees were selected for retention by the client.

- Tree No. 2217 *Eucalyptus pilularis* (Blackbutt)
- Tree No. 2242 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2453 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2462 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2465 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2480 *Eucalyptus saligna* (Sydney Blue Gum)

7.2.4 Minor or Acceptable Encroachments

7.2.4.1 The following trees have encroachments of less than 10% that are outside the structural root zone (SRZ). These are considered to be 'Minor' in accordance with AS4970-2009 and generally do not require detailed root investigations. These trees will require an additional TPZ contiguous area to compensate for the encroachment.

7.2.4.2 Small fibrous roots are used for nutrient and moisture uptake. Larger roots are used for carbohydrate storage and support. Any damage or removal can cause stress to a tree that may not appear for some time. Any work proposed within their TPZ's must be hand excavated to protect any root larger than 40mm in dimeter.

- Tree No. 2249 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2268 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2295 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2331 *Eucalyptus botryoides* (Bangalay)
- Tree No. 2336 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2388 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2389 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2393 *Eucalyptus scoparia* (Wallangara White Gum)
- Tree No. 2396 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2399 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2401 *Eucalyptus scoparia* (Wallangara White Gum)
- Tree No. 2480 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2406 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2408 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2446 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2480 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2459 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2466 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2467 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2472 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2480 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2487 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2491 *Ficus microcarpa* var. *hillii* (Hills Weeping Fig)

7.2.5 Major Encroachments

7.2.5.1 The following trees have encroachments of greater than 10% or are inside the structural root zone (SRZ), therefore it must be demonstrated that the trees remain viable. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non-destructive methods and consideration of other relevant factors.

- Tree No. 2405 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2242 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2250 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2278 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2296 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2332 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2351 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2352 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2444 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2447 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2464 *Eucalyptus saligna* (Sydney Blue Gum)

7.3 Trees Proposed for Removal

7.3.1 One hundred and twenty-one (121) trees are within or closely adjacent to the proposed works area and are proposed for removal.

- Eighty-three (83) of these trees have life expectancies of 40+ years.
- Eighty-three (83) trees have Tree AZ rating of ‘A’.
- Nineteen (19) trees have ratings of Z1 and are either young, small or insignificant.
- Three (3) trees are deteriorating in health.
- Eleven (11) trees appear to structurally unsound.
- One (1) tree is dead (no hollows).

7.3.2 The following trees have major encroachments in accordance with AS4970-2009. The encroachments greater than 10% of the TPZ or inside the SRZ where their retention is considered to be not viable. These trees are likely to suffer greatly by the proposed works and may to become unstable as well as significantly reducing their life expectancies.

- Tree No. 2285 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2287 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2328 *Eucalyptus botryoides* (Bangalay)
- Tree No. 2353 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2355 *Eucalyptus saligna* (Sydney Blue Gum)
- Tree No. 2386 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2387 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2394 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2407 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2440 *Callistemon viminalis* (Weeping Bottlebrush)
- Tree No. 2443 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2457 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2468 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2469 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2470 *Corymbia citriodora* (Lemon-scented Gum)
- Tree No. 2471 *Eucalyptus saligna* (Sydney Blue Gum)

- Tree No. 2473 *Eucalyptus microcorys* (Tallowwood)
- Tree No. 2486 *Eucalyptus microcorys* (Tallowwood)

7.4 Habitat Trees Selected for Relocation

7.4.1 The following trees are located within or adjacent to the proposed development envelope and possible contain habitat capabilities. These trees should be assessed by an ecologist for habitat suitability and possibly relocated with supports to another area on site.

7.4.2 Tree No. 2240 *Eucalyptus saligna* (Sydney Blue Gum)

7.4.2.1 This tree is located within the proposed development envelope. It has significant trunk wounds and numerous hollows.

7.4.3 Tree No. 2297 *Eucalyptus saligna* (Sydney Blue Gum)

7.4.3.1 This tree is located within the proposed external works envelope. It has a significant cavity with insects present.

7.4.4 Tree No. 2438 *Dead Tree*

7.4.4.1 This tree is located within the proposed external works envelope. It has numerous hollows and has been previously retained as a habitat tree.

7.4.5 Tree No. 2488 *Dead Tree*

7.4.5.1 This tree is located within the proposed activity play area works envelope. It has a hollow within the codominant scaffold limb union.

Figure 5. Tree No. 2240

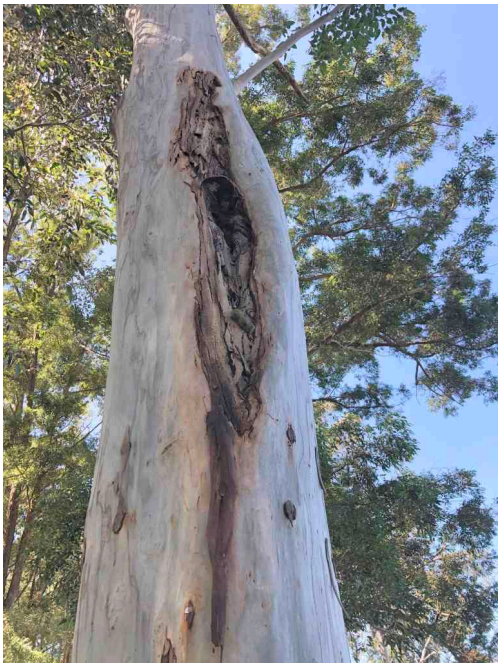


Figure 6. Tree No. 2297

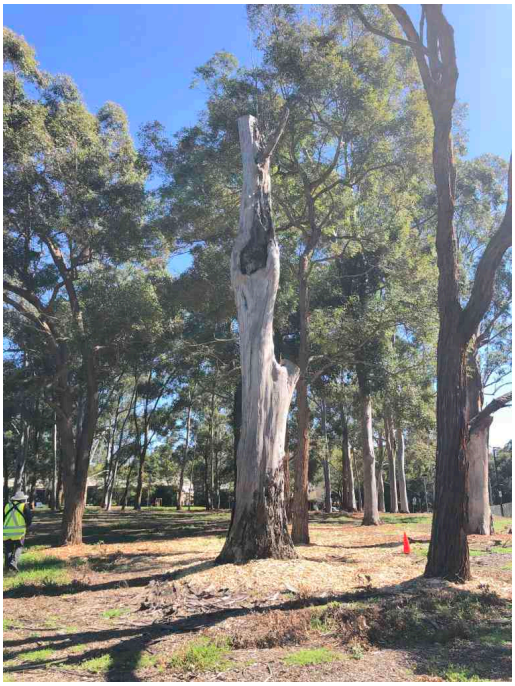


Figure 7. Tree No. 2438

Figure 8. Tree No. 2488

8 Conclusion & Recommendations

8.1 Trees Proposed for Retention

8.1.1 One hundred and sixty-six (166) trees are located outside the proposed development envelope and are proposed for retention.

- One-hundred and fourteen (114) of these trees have life expectancies of 40+ years and one-hundred and fifteen (115) trees have Tree AZ rating of 'A'. These trees should have deadwood branches removed and generally canopy maintenance performed if required.

8.1.2 Tree protection measures are as follows.

- No excavation within SRZ
- Hand excavation within TPZ
- Do not cut roots over 40mm in diameter
- Properly prune roots under 40mm sharply
- No soil level changes within TPZ
- Tree protection fencing
- Apply general tree protection methods (section 9)

8.1.3 Eleven (11) trees are deteriorating in health require management plans to attempt to increase their current life expectancy.

8.1.4 The six (6) trees that are considered to be structurally unsound require further testing and inspections to determine their viability.

8.2 Trees Proposed for Removal

8.2.1 One-hundred and twenty-one (121) trees are within or closely adjacent to the proposed works area and are proposed for removal. Three (3) trees are deteriorating in health and eleven (11) trees are considered to be structurally unsound.

8.3 Habitat Trees Proposed for Removal

8.3.1 Four (4) trees proposed for removal have been highlighted as having the potential for habitat capabilities. Two (2) trees are dead and two (2) are still living. Any tree proposed for removal that contains hollows suitable for fauna habitat should be assessed by an ecologist and retained on site or on a nearby reserve.

- Retain branch hollows and trunks suitable for habitat
- Ensure that WIRES or a fauna specialist be present during tree removal to capture and release or relocate fauna
- Install power poles or similar to attach habitat trunks for support

9 Tree Protection Measures

These specifications are for the trees identified and selected for retention including any tree located on adjoining properties.

9.1 Tree Protection

9.1.1 All tree parts must be protected - This includes roots, trunks and branches.

9.1.2 Trunk Protection - If working within TPZ, trunk protection shall consist of hessian or padding wrapped around the trunk, two metre lengths of timber (100 x 50mm) spaced at 100-150mm centres secured together with 2mm galvanised wire. These shall be strapped around the trunk and not fixed to the tree in any way to avoid mechanical injury or damage.

9.1.3 Fencing - A 1.8m chain wire fence, secured and fastened to prevent movement be installed in accordance with AS4970-2009 and AS 4687-2007. The TPZ distances are located within the tree schedule. Woody roots must not be damage during fencing TPZ fencing installation. The installation of all required tree protection fencing must include shade cloth attached to the fencing to reduce transport of dust, particulates and liquids from entering the tree protection zone. No fence relocation is permitted without Arborist permission.

9.1.4 Ground Protection - Ground surface protection must be installed if construction access is required through any TPZ. Protected with boarding (ie scaffolding board or plywood sheeting or similar material), placed over a layer of mulch to a depth of at least 75mm and geotextile fabric. The protective boarding must be left in place for the duration of the construction and development. The existing concrete driveway is to be left in-situ and forms part of the ground surface protection.

9.1.5 Signage - “Tree Protection Zone, No Entry”. With project arborist contact details to be attached to the protective fencing.

9.1.6 Machinery Movements - When machinery movements are required within the TPZ then a geotextile permeable membrane to be laid under mulch or crushed rock under rumble boards must be in place.

9.1.7 Foot Traffic - Raised platforms using scaffolding and boards or similar must be constructed if foot traffic occurs within TPZ. Scaffold with boards is sufficient.

9.1.8 AS4970-2009 - Activities generally excluded from the TPZ include but are not limited to;

- soil cutting or fill including trenching
- machine excavation including trenching;
- excavation for silt fencing;
- soil cultivation, disturbance or compaction;
- stockpiling, storage or mixing of materials;
- preparation of chemicals, including preparation of cement products;

- parking of vehicles and plant;
- disposal of liquids and refuelling;
- dumping of waste;
- disposal of building materials;
- wash down and cleaning of equipment;
- placement of fill;
- lighting of fires;
- soil level changes;
- temporary or permanent installation of utilities and signs, and
- physical damage to the tree.
- site offices or shed locations

9.1.9 Scaffolding - All construction scaffolding must be erected around all branches not approved for pruning or removal.

9.1.10 Pruning - Remove of all dead stubs and failed branches leaving a clean cut with no splinters or pieces of wood that may prevent wound wood closure. This will enable wound wood development and reduce the risk of fungal infection. Any pruning required must be in accordance with AS 4373-2007 Pruning of Amenity Trees, Standards Australia and completed by level 3 qualified arborist or higher. Climbing spikes MUST NOT be used.

9.1.11 Mulch - Within the TPZ fencing up to 50mm of COMPOSTED organic mulch must be applied to help retain moisture levels, suppress weed growth and reduce tree stress. Mulch must be in accordance with AS4454-2012 Composts, soil conditioners and mulches.

9.1.12 Irrigation - All trees must be thoroughly watered regularly throughout the development process. This is dependent on weather conditions where more water applied during hot and or winding weather. Micro-irrigation lines must be connected to a designated water source that remains connected throughout the development works.

9.1.13 Tree Damage - If any tree is damaged the project arborist should be notified, engaged to inspect and provide advice as well as written documentation to be supplied to the certifying authority.

9.2 Tree Monitoring Schedule

9.2.1 During site occupation all TPZ's and trees must be monitored, assessed and recorded by the project arborist according to council's determinations.

9.2.2 Any work that must occur within a TPZ must be witnessed and directed by the project arborist.

9.2.3 In the event that any tree is declining in health the project arborist shall be engaged to supply written remedial applications that must be applied immediately.

9.2.4 Excavation Within Tree Protection Zones

9.2.5 Monitoring

9.2.6 Any excavation work within a Tree Protection Zone must be monitored by the project arborist.

9.3 Root Pruning

9.3.1 Roots measuring over 40mm in diameter must not be pruned within the Structural Root Zone unless directed by the project arborist ONLY.

9.3.2 Roots measuring over 40mm in diameter within the Tree Protection Zone and outside the Structural Root Zone may be pruned at the discretion of the project arborist.

9.3.3 Root exposure must be applied with hand tools or Air Spade to prevent damage to the root system.

9.3.4 Root pruning can be performed by a level 3 arborist or higher.

9.3.5 All pruning equipment must be sharp and clean. Secateurs, loppers or pruning saws should be used and can be cleaned with methylated spirits to prevent disease and pathogen spread.

9.3.6 Bolt or wire cutters must not be used for root pruning.

9.4 Root Care

9.4.1 Any roots exposed must be wrapped or covered with hessian or cloth and kept moist to prevent drying out and sunburn until backfilling occurs.

9.4.2 Backfill must be watered in and mulched with composted leaf mulch.

9.5 Project Arborist Monitoring

1	Project arborist (level 5) must oversee tree retention
2	All tree related matters must be discussed with the project arborist
3	The builder / site manager is responsible to inform the project arborist of any issues during works
4	Project arborist must maintain a monthly log including site visits, notes and photographs.
5	Project arborist must provide feedback the builder / site manager / council.

Table 11. Project Arborist Monitoring

9.6 Project Arborist Supervision

An Arborist with minimum qualifications in Arboriculture of Level 5 (under the Australian Qualification Framework) must oversee various stages of work within the Tree Protection Zone of any tree listed for retention. The Arborist must certify compliance with each key milestone as detailed below

1	Installation of tree protection measures
2	During demolition of any ground surface materials (paving, concrete, grass etc) within the Tree Protection Zone (TPZ) of any tree to be retained
3	During construction of all pier and beam footings within any Tree Protection Zones. Footings shall be relocated / realigned if any tree root greater than 40mm in diameter is encounter during excavations. A minimum of 150mm clearance shall be provided between the tree root and footing
4	During any excavation and trenching which has been approved by Council within the TPZ of any tree to be retained
5	During any Landscape works within the TPZ of any tree to be retained

Table 12. Project Arborist Supervision

9.7 Project Arborist Hold Points

Hold Point	Task	Timing	Certification
1	Appoint project arborist to ensure protection of trees	Prior to demolition of structures	
2	Tree Protection Plan be onsite prior to works (AS4970-2009)		
3	Inspect Tree Protection Fencing with signage. (AS4970-2009)	Prior to demolition of structures	Project Arborist
4	Supervise all work within any TPZ's	As required prior to works proceeding	
5	Install Trunk Protection where applicable		
6	Tree Inspection	Bi-monthly during all construction works	
7	Final Tree Inspection	Post construction	

Table 13. Project Arborist Hold Points

Appendix A - Tree Schedule

Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2212.0	Lophostemon confertus (Queensland Brush Box)	20cm	30cm	8.0m	7.0m	young	40+yrs	dominant	good (4)	native	No significant issues sighted	Z1	yes	mulch	2.0m	2.4m	no works	50.0m	0%	Retain
2215.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	28.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Small trunk wound at 0.5m	A	yes	natural mulch	2.7m	6.0m	no works	45.0m	0%	Retain
2216.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	24.0m	12.0m	mature	5-15yrs	codominant	decline (2)	native	Deadwood / Peeling bark / Trunk wound at 3m with fungal body / Decline / Epicormic growth	Z3	yes	natural mulch	2.8m	7.2m	no works	33.0m	0%	Retain
2217.0	Eucalyptus pilularis (Blackbutt)	50cm	55cm	16.0m	12.0m	mature	5-15yrs	codominant	decline (2)	native	Deadwood / Epicormic growth / Decline	Z4	yes	mulch	2.6m	6.0m	no works	45.0m	0%	Retain (further invest)
2218.0	Lophostemon confertus (Queensland Brush Box)	20cm	25cm	6.0m	8.0m	young	40+yrs	dominant	good (4)	native	No significant issues sighted	Z1	yes	mulch	1.8m	2.4m	no works	44.0m	0%	Retain
2219.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	24.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Included bark in scaffold branch union and others / Epicormic growth / Deadwood /	A	yes	mulch	2.8m	7.2m	no works	38.0m	0%	Retain
2220.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	22.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Included bark in branch unions / Epicormic growth / Deadwood	A	yes	mulch	2.7m	6.0m	no works	34.0m	0%	Retain
2221.0	Eucalyptus microcorys (Tallowwood)	60cm	50cm	23.0m	12.0m	semi mature	40+yrs	intermediate	average (3)	native	Included bark in codominant trunk union and branch unions / Epicormic growth / Deadwood	A	yes	mulch	2.5m	7.2m	no works	30.0m	0%	Retain
2222.0	Eucalyptus microcorys (Tallowwood)	30cm	40cm	14.0m	8.0m	semi mature	40+yrs	intermediate	average (3)	native	Major deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.3m	3.6m	no works	27.0m	0%	Retain
2223.0	Eucalyptus microcorys (Tallowwood)	50cm	55cm	24.0m	10.0m	semi mature	15-40yrs	codominant	low (2-3)	native	Major deadwood / Epicormic growth / Included bark in branch unions	Z3	yes	mulch	2.6m	6.0m	no works	24.0m	0%	Retain
2224.0	Eucalyptus microcorys (Tallowwood)	65cm	70cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in scaffold branch union and others / Asymmetric canopy	A	yes	mulch	2.8m	7.8m	no works	22.0m	0%	Retain
2225.0	Eucalyptus microcorys (Tallowwood)	25cm	30cm	12.0m	8.0m	young	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.0m	3.0m	no works	36.0m	0%	Retain
2226.0	Eucalyptus microcorys (Tallowwood)	25cm	40cm	16.0m	9.0m	young	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.3m	3.0m	no works	26.0m	0%	Retain
2227.0	Eucalyptus microcorys (Tallowwood)	30cm	45cm	20.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.4m	3.6m	no works	29.0m	0%	Retain
2228.0	Eucalyptus microcorys (Tallowwood)	40cm	45cm	20.0m	9.0m	young	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.4m	4.8m	no works	31.0m	0%	Retain
2229.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Live crown ratio 20%	A	yes	mulch	2.8m	6.0m	no works	27.0m	0%	Retain
2230.0	Eucalyptus microcorys (Tallowwood)	50cm	55cm	20.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Included bark in branch unions / Epicormic growth / Deadwood / Asymmetric canopy	A	yes	mulch	2.6m	6.0m	no works	23.0m	0%	Retain
2231.0	Eucalyptus microcorys (Tallowwood)	20cm	35cm	14.0m	6.0m	young	5-15yrs	codominant	decline (2)	native	Excessive deadwood / Epicormic growth	Z1	yes	mulch	2.1m	2.4m	no works	27.0m	0%	Retain
2232.0	Dead Tree			16.0m			dead		dead		No hollows	Z	no	mulch			no works	16.0m		Retain
2233.0	Dead Tree			14.0m			dead		dead		No hollows	Z	no	mulch			no works	12.0m		Retain
2234.0	Eucalyptus sp (Gum Tree)	5cm	5cm	2.0m	2.0m	young	40+yrs	dominant	average (3)	native		Z1	no	grass	0.9m	2.0m	no works	10.0m	0%	Retain
2235.0	Corymbia maculata (Spotted Gum)	50cm	65cm	20.0m	10.0m	mature	40+yrs	codominant	average (3)	native	Compressed bark / Minor deadwood	A	yes	mulch	2.8m	6.0m	development	0.0m	100%	Remove
2236.0	Corymbia maculata (Spotted Gum)	50cm	60cm	26.0m	12.0m	mature	40+yrs	codominant	average (3)	native	No significant issues sighted	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove

Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2237.0	Corymbia maculata (Spotted Gum)	40cm	45cm	13.0m	8.0m	young	40+yrs	codominant	average (3)	native	Trunk wound	A	yes	mulch	2.4m	4.8m	development	0.0m	100%	Remove
2237.1	Corymbia maculata (Spotted Gum)	10cm	20cm	7.0m	3.0m	young	40+yrs	codominant	average (3)	native	No significant issues sighted	Z1	yes	mulch	1.7m	2.0m	development	0.0m	100%	Remove
2238.0	Corymbia maculata (Spotted Gum)	60cm	65cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Growth splits / Compressed bark	A	yes	mulch	2.8m	7.2m	development	0.0m	100%	Remove
2238.1	Corymbia maculata (Spotted Gum)	50cm	60cm	18.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Growth splits / Compressed bark	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2239.0	Olea europaea var. communis (European Olive)	29cm	60cm	5.0m	6.0m	mature	15-40yrs	dominant	average (3)	exotic	Previous failures / Epicormic growth / Basal suckers	Z1	no	grass	2.7m	3.5m	external works	0.0m	100%	Remove
2239.1	Olea europaea var. communis (European Olive)	30cm	40cm	5.0m	5.0m	mature	15-40yrs	dominant	average (3)	exotic	Previous failures / Epicormic growth / Basal suckers	Z1	no	grass	2.3m	3.6m	development	0.0m	100%	Remove
2239.2	Olea europaea var. communis (European Olive)	18cm	40cm	4.0m	7.0m	mature	15-40yrs	dominant	average (3)	exotic	Previous failures / Epicormic growth / Basal suckers	Z1	no	grass	2.3m	2.2m	external works	0.0m	100%	Remove
2239.3	Olea europaea var. communis (European Olive)	31cm	60cm	6.0m	5.0m	mature	15-40yrs	dominant	average (3)	exotic	Previous failures / Epicormic growth / Basal suckers	Z1	no	grass	2.7m	3.7m	external works	0.0m	100%	Remove
2239.4	Camellia reticulata (Reticulata Camellia)	20cm	20cm	3.0m	3.0m	mature	15-40yrs	dominant	good (4)	exotic		Z1	no	grass	1.7m	2.4m	external works	0.0m	100%	Remove
2240.0	Eucalyptus saligna (Sydney Blue Gum)	80cm	#####	24.0m	18.0m	mature	15-40yrs	codominant	average (3)	native	Trunk wound with borers and cankers to 1.5m / Pruning events / Trunk wound at 4m / Epicormic growth / Deadwood / Trunk wound to 1.5m	Z4	yes	mulch	3.3m	9.6m	development	0.0m	100%	Remove (relocate)
2241.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Kino at scaffold branch union	A	yes	mulch	2.8m	7.2m	development	0.0m	100%	Remove
2242.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	75cm	28.0m	13.0m	mature	15-40yrs	codominant	average (3)	native	Trunk wound to 1.5m / Trunk wound to 1m / Deadwood / Pruning events	Z4	yes	mulch	2.9m	7.2m	development	4.0m	17%	Retain (further invest)
2243.0	Lophostemon confertus (Queensland Brush Box)	28cm	45cm	12.0m	8.0m	young	40+yrs	codominant	good (4)	native	Minor deadwood / Included bark in codominant trunk union	A	yes	mulch	2.4m	3.4m	development	0.0m	100%	Remove
2244.0	Lophostemon confertus (Queensland Brush Box)	50cm	60cm	12.0m	12.0m	semi mature	40+yrs	codominant	good (4)	native	No significant issues sighted	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2245.0	Eucalyptus saligna (Sydney Blue Gum)	70cm	80cm	24.0m	14.0m	mature	15-40yrs	codominant	decline (2)	native	Deadwood / Epicormic growth / Trunk wound to 3m with borer evidence and cankers	Z4	yes	mulch	3.0m	8.4m	external works	0.0m	100%	Remove
2246.0	Eucalyptus microcorys (Tallowwood)	20cm	35cm	11.0m	6.0m	young	40+yrs	codominant	average (3)	native	No significant issues sighted	A	yes	mulch	2.1m	2.4m	development	0.0m	100%	Remove
2247.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	26.0m	12.0m	mature	15-40yrs	codominant	decline (2)	native	Excessive deadwood / Epicormic growth	Z3	yes	mulch	2.8m	7.2m	external works	3.8m	9%	Retain
2248.0	Eucalyptus sp (Gum Tree)	10cm	15cm	7.0m	2.0m	young	15-40yrs	dominant	average (3)	native	No significant issues sighted	Z1	yes	mulch	1.5m	2.0m	no works	7.5m	0%	Retain
2249.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	50cm	24.0m	10.0m	semi mature	15-40yrs	codominant	average (3)	native	Deadwood / Branch cankers / Pruning events / Live crown ratio 10%	Z3	yes	mulch	2.5m	6.0m	external works	5.0m	4%	Retain
2250.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	65cm	28.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.8m	7.2m	external works	4.0m	17%	Retain
2251.0	Dead Tree			18.0m			dead		dead		No hollows	Z	no	mulch			no works	9.0m		Retain
2252.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	26.0m	18.0m	mature	40+yrs	dominant	average (3)	native	Epicormic growth / Deadwood / Included bark in scaffold branch union and others	A	yes	mulch	2.8m	6.0m	no works	10.0m	0%	Retain
2253.0	Dead Tree			10.0m			dead		dead		No hollows	Z	no	mulch			no works	13.0m		Retain

Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2254.0	Eucalyptus microcorys (Tallowwood)	45cm	50cm	24.0m	13.0m	semi mature	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in branch unions	A	yes	mulch	2.5m	5.4m	no works	18.0m	0%	Retain
2255.0	Eucalyptus microcorys (Tallowwood)	55cm	65cm	24.0m	12.0m	mature	40+yrs	dominant	average (3)	native	Deadwood / Included bark in scaffold branch unions and others / Epicormic growth	A	yes	natural mulch	2.8m	6.6m	no works	20.0m	0%	Retain
2256.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	22.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in branch unions / Epicormic growth	A	yes	natural mulch	2.7m	6.0m	no works	26.0m	0%	Retain
2257.0	Eucalyptus microcorys (Tallowwood)	25cm	35cm	12.0m	7.0m	young	15-40yrs	codominant	average (3)	native	Deadwood / Included bark in branch unions / Epicormic growth	A	yes	natural mulch	2.1m	3.0m	no works	30.0m	0%	Retain
2258.0	Eucalyptus microcorys (Tallowwood)	40cm	50cm	20.0m	8.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in branch unions / Epicormic growth	A	yes	natural mulch	2.5m	4.8m	no works	30.0m	0%	Retain
2259.0	Eucalyptus microcorys (Tallowwood)	10cm	15cm	6.0m	5.0m	young	40+yrs	codominant	average (3)	native	Excessive epicormic growth	Z1	yes	natural mulch	1.5m	2.0m	no works	35.0m	0%	Retain
2260.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	22.0m	10.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in branch unions / Epicormic growth	A	yes	natural mulch	2.7m	6.0m	no works	30.0m	0%	Retain
2261.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	22.0m	10.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in branch unions / Epicormic growth	A	yes	natural mulch	2.8m	6.0m	no works	30.0m	0%	Retain
2262.0	Eucalyptus microcorys (Tallowwood)	50cm	50cm	15.0m	9.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions / Asymmetric canopy	A	yes	mulch	2.5m	6.0m	no works	32.0m	0%	Retain
2263.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	28.0m	12.0m	mature	15-40yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.7m	6.0m	no works	32.0m	0%	Retain
2264.0	Eucalyptus microcorys (Tallowwood)	30cm	35cm	10.0m	6.0m	young	40+yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Included bark in scaffold branch union and others / Trunk wound to 50cm	A	yes	mulch	2.1m	3.6m	no works	30.0m	0%	Retain
2265.0	Eucalyptus microcorys (Tallowwood)	40cm	40cm	10.0m	5.0m	young	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.3m	4.8m	no works	30.0m	0%	Retain
2266.0	Eucalyptus microcorys (Tallowwood)	65cm	75cm	28.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in scaffold branch union and others	A	yes	mulch	2.9m	7.8m	no works	26.0m	0%	Retain
2267.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	28.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.7m	6.0m	no works	26.0m	0%	Retain
2268.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.7m	6.0m	no works	23.0m	8%	Retain
2269.0	Eucalyptus microcorys (Tallowwood)	60cm	60cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in scaffold branch union and others	A	yes	mulch	2.7m	7.2m	no works	23.0m	0%	Retain
2270.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in scaffold branch union and others	A	yes	mulch	2.8m	7.2m	no works	21.0m	0%	Retain
2271.0	Eucalyptus microcorys (Tallowwood)	25cm	40cm	14.0m	9.0m	young	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.3m	3.0m	no works	20.0m	0%	Retain
2272.0	Dead Tree			10.0m			dead		dead		No hollows	Z	no	mulch			no works	15.0m		Retain (further invest)
2273.0	Eucalyptus saligna (Sydney Blue Gum)	45cm	55cm	18.0m	12.0m	semi mature	5-15yrs	codominant	decline (2)	native	Deadwood / Epicormic growth	Z3	yes	mulch	2.6m	5.4m	no works	15.0m	0%	Retain
2274.0	Dead Tree			4.0m			dead		dead		No hollows	Z	no	mulch			no works	16.0m		Retain (further invest)
2275.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	40cm	11.0m	4.0m	young	15-40yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Minor trunk wound	A	yes	mulch	2.3m	4.8m	no works	12.0m	0%	Retain
2276.0	Dead Tree			5.0m			dead		dead		Small hollows	Habit at	yes	mulch			no works	8.0m		Retain
2276.1	Lophostemon confertus (Queensland Brush Box)	30cm	45cm	8.0m	10.0m	semi mature	40+yrs	dominant	good (4)	native	No significant issues sighted	A	yes	mulch	2.4m	3.6m	no works	4.0m	0%	Retain
2277.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	45cm	22.0m	13.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood	A	yes	mulch	2.4m	4.8m	no works	5.0m	0%	Retain

Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2278.0	Eucalyptus saligna (Sydney Blue Gum)	70cm	80cm	26.0m	14.0m	mature	15-40yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Trunk wound to 1m with borer evidence and cankers / Trunk wound cavity at 5m / Trunk wound cavity at 8m / Scratches on trunk	Habitat	yes	mulch	3.0m	8.4m	external works	5.0m	14%	Retain
2279.0	Eucalyptus saligna (Sydney Blue Gum)	45cm	50cm	20.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood	A	yes	mulch	2.5m	5.4m	development	0.0m	100%	Remove
2280.0	Eucalyptus sp (Gum Tree)	60cm	60cm	24.0m	14.0m	mature	5-15yrs	codominant	decline (2)	native	Deadwood / Epicormic growth / Pruning events / Pruning wound 30cm diam / Occluded trunk wound at 8m / Trunk wound cavity at 5m / Trunk wound cavity at 8m / Scratches on trunk	Z3	yes	mulch	2.7m	7.2m	external works	0.0m	100%	Remove
2281.0	Lophostemon confertus (Queensland Brush Box)	40cm	45cm	10.0m	12.0m	semi mature	40+yrs	dominant	good (4)	native	No significant issues sighted	A	yes	mulch	2.4m	4.8m	development	0.0m	100%	Remove
2282.0	Corymbia maculata (Spotted Gum)	50cm	60cm	18.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Included bark at branch unions / Asymmetric canopy	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2283.0	Corymbia maculata (Spotted Gum)	50cm	60cm	20.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Included bark at scaffold branch unions / Minor deadwood	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2284.0	Eucalyptus microcorys (Tallowwood)	60cm	60cm	24.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.7m	7.2m	development	0.0m	100%	Remove
2285.0	Eucalyptus microcorys (Tallowwood)	40cm	50cm	18.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Mature epicormic growth / Included bark in branch unions	A	yes	mulch	2.5m	4.8m	development	2.0m	24%	Remove
2286.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in branch unions / Asymmetric canopy	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2287.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Mature epicormic growth / Included bark in branch unions	A	yes	mulch	2.8m	6.0m	external works	1.5m	34%	Remove
2288.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	50cm	7.0m	3.0m	semi mature	<5yrs	dominant	average (3)	native	Failed trunk / 60% dead cambium / Small cavities	Habitat	yes	mulch	2.5m	4.8m	no works	15.0m	0%	Retain (further invest)
2289.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	24.0m	12.0m	mature	<5yrs	codominant	severe decline (1)	native	Decline / Deadwood / Trunk wound	Z3	yes	mulch	2.7m	6.0m	no works	17.0m	0%	Retain
2290.0	Eucalyptus saligna (Sydney Blue Gum)	25cm	25cm	9.0m	3.0m	young	40+yrs	dominant	average (3)	native	No significant issues sighted	Z1	yes	mulch	1.8m	3.0m	no works	10.0m	0%	Retain
2291.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	26.0m	12.0m	mature	15-40yrs	codominant	low (2-3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.7m	6.0m	no works	23.0m	0%	Retain
2292.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	26.0m	18.0m	mature	40+yrs	dominant	average (3)	native	Minor trunk wound / Deadwood / Epicormic growth	A	yes	mulch	2.8m	7.2m	no works	13.0m	0%	Retain
2293.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	65cm	20.0m	12.0m	mature	40+yrs	dominant	average (3)	native	Hanger / Deadwood / Epicormic growth / Minor previous failure / trunk wound and cavity at 5m	A	yes	mulch	2.8m	7.2m	no works	8.0m	0%	Retain
2294.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	24.0m	14.0m	mature	15-40yrs	codominant	low (2-3)	native	Excessive deadwood / Epicormic growth	A	yes	mulch	2.7m	6.0m	no works	7.0m	0%	Retain
2295.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	55cm	26.0m	14.0m	mature	15-40yrs	codominant	low (2-3)	native	Excessive epicormic growth / Deadwood	A	yes	mulch	2.6m	6.0m	external works	4.5m	2%	Retain
2296.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	26.0m	10.0m	semi mature	5-15yrs	dominant	decline (2)	native	Thin upper canopy / Excessive bark splits / Pruning events / Deadwood / Epicormic growth	Z3	yes	mulch	2.7m	6.0m	external works	3.5m	15%	Retain
2297.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	65cm	26.0m	16.0m	mature	15-40yrs	dominant	average (3)	native	Deadwood (10cm diam) / Trunk wound at 2m to 4m with cavity and fungal fruiting body with insects	Z4	yes	mulch	2.8m	7.2m	external works	0.0m	100%	Remove (relocate)
2298.0	Corymbia maculata (Spotted Gum)	40cm	50cm	18.0m	9.0m	semi mature	40+yrs	codominant	average (3)	native	No significant issues sighted	A	yes	mulch	2.5m	4.8m	external works	0.0m	100%	Remove
2299.0	Eucalyptus microcorys (Tallowwood)	60cm	75cm	26.0m	16.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark at branch unions	A	yes	mulch	2.9m	7.2m	external works	0.0m	100%	Remove
2300.0	Dead Tree			14.0m			dead		dead		No hollows	Z	no	mulch			development	0.0m		Remove

Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2301.0	Eucalyptus microcorys (Tallowwood)	45cm	50cm	20.0m	8.0m	semi mature	15-40yrs	codominant	average (3)	native	Deadwood / Excessive epicormic growth / Live crown ratio 10%	A	yes	mulch	2.5m	5.4m	development	0.0m	100%	Remove
2302.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Minor deadwood / Epicormic growth / Included bark at branch unions	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2303.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	24.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Minor deadwood / Epicormic growth / Included bark at branch unions	A	yes	mulch	2.8m	6.0m	development	0.0m	100%	Remove
2304.0	Eucalyptus microcorys (Tallowwood)	65cm	75cm	26.0m	16.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark at branch unions / self corrected lean	A	yes	mulch	2.9m	7.8m	external works	0.0m	100%	Remove
2305.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	22.0m	16.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark at scaffold branch union and others	A	yes	mulch	2.8m	7.2m	external works	0.0m	100%	Remove
2306.0	Eucalyptus microcorys (Tallowwood)	20cm	25cm	13.0m	4.0m	young	15-40yrs	codominant	average (3)	native	Deadwood / Epicormic growth	Z1	yes	mulch	1.8m	2.4m	development	0.0m	100%	Remove
2307.0	Eucalyptus microcorys (Tallowwood)	20cm	25cm	6.0m	4.0m	young	15-40yrs	codominant	average (3)	native	Deadwood / Epicormic growth	Z1	yes	mulch	1.8m	2.4m	development	0.0m	100%	Remove
2308.0	Eucalyptus microcorys (Tallowwood)	20cm	25cm	9.0m	6.0m	young	15-40yrs	codominant	average (3)	native	Deadwood / Epicormic growth	Z1	yes	mulch	1.8m	2.4m	development	0.0m	100%	Remove
2309.0	Eucalyptus botryoides (Bangalay)	50cm	60cm	16.0m	12.0m	mature	15-40yrs	codominant	average (3)	native	Trunk wound at 2m with fungi	Z4	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2310.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	18.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.8m	7.2m	development	0.0m	100%	Remove
2311.0	Corymbia maculata (Spotted Gum)	40cm	45cm	14.0m	7.0m	young	40+yrs	codominant	average (3)	native	Asymmetric canopy	A	yes	mulch	2.4m	4.8m	development	0.0m	100%	Remove
2312.0	Corymbia maculata (Spotted Gum)	30cm	40cm	13.0m	8.0m	young	40+yrs	codominant	average (3)	native	Minor trunk wound with kino	A	yes	mulch	2.3m	3.6m	development	0.0m	100%	Remove
2313.0	Eucalyptus saligna (Sydney Blue Gum)	65cm	75cm	24.0m	18.0m	mature	40+yrs	dominant	average (3)	native	Deadwood / Dead stub / Epicormic growth / Nest	A	yes	mulch	2.9m	7.8m	development	0.0m	100%	Remove
2314.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	50cm	26.0m	14.0m	mature	15-40yrs	codominant	average (3)	native	Deadwood / Codominant scaffold limbs / Trunk wound (A) at 6m with fungi / Trunk wound (B) at 6m	A	yes	mulch	2.5m	6.0m	development	0.0m	100%	Remove
2315.0	Corymbia maculata (Spotted Gum)	40cm	45cm	19.0m	9.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood	A	yes	mulch	2.4m	4.8m	development	0.0m	100%	Remove
2316.0	Corymbia maculata (Spotted Gum)	40cm	50cm	14.0m	8.0m	semi mature	40+yrs	codominant	average (3)	native	Minor deadwood	A	yes	mulch	2.5m	4.8m	development	0.0m	100%	Remove
2317.0	Eucalyptus microcorys (Tallowwood)	70cm	85cm	28.0m	20.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in scaffold branch unions and others	A	yes	mulch	3.1m	8.4m	development	0.0m	100%	Remove
2318.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in scaffold branch unions and others	A	yes	mulch	2.8m	6.0m	development	0.0m	100%	Remove
2318.1	Eucalyptus microcorys (Tallowwood)	50cm	60cm	20.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in scaffold branch unions and others	A	yes	mulch	2.7m	6.0m	external works	0.0m	100%	Remove
2319.0	Eucalyptus microcorys (Tallowwood)	30cm	45cm	15.0m	9.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in branch unions	A	yes	mulch	2.4m	3.6m	development	0.0m	100%	Remove
2320.0	Eucalyptus microcorys (Tallowwood)	45cm	50cm	24.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in branch unions	A	yes	mulch	2.5m	5.4m	development	0.0m	100%	Remove
2321.0	Eucalyptus microcorys (Tallowwood)	30cm	45cm	20.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Epicormic growth / Deadwood / Included bark in branch unions	A	yes	mulch	2.4m	3.6m	external works	0.0m	100%	Remove
2322.0	Eucalyptus botryoides (Bangalay)	50cm	55cm	26.0m	12.0m	mature	15-40yrs	codominant	average (3)	native	Epicormic growth on lower trunk / Deadwood	A	yes	mulch	2.6m	6.0m	external works	0.0m	100%	Remove
2323.0	Eucalyptus saligna (Sydney Blue Gum)	20cm	30cm	12.0m	5.0m	young	15-40yrs	codominant	low (2-3)	native	Epicormic growth	A	yes	mulch	2.0m	2.4m	external works	0.0m	100%	Remove
2324.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	45cm	13.0m	9.0m	young	15-40yrs	codominant	average (3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.4m	4.8m	external works	0.0m	100%	Remove
2325.0	Eucalyptus saligna (Sydney Blue Gum)	25cm	35cm	15.0m	5.0m	young	5-15yrs	codominant	decline (2)	native	Epicormic growth / Decline	Z3	yes	mulch	2.1m	3.0m	external works	0.0m	100%	Remove
2326.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	55cm	30.0m	14.0m	semi mature	15-40yrs	codominant	low (2-3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.6m	6.0m	external works	0.0m	100%	Remove

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2327.0	Eucalyptus saligna (Sydney Blue Gum)	70cm	80cm	26.0m	20.0m	mature	40+yrs	dominant	average (3)	native	Deadwood / Trunk hollow at 5m / Pruning events / Scaffold hollow at 7m	A	yes	mulch	3.0m	8.4m	external works	0.0m	100%	Remove
2328.0	Eucalyptus botryoides (Bangalay)	45cm	50cm	18.0m	9.0m	semi mature	15-40yrs	dominant	average (3)	native	Epicormic growth	A	yes	mulch	2.5m	5.4m	external works	2.5m	22%	Remove
2328.1	Eucalyptus sp (Gum Tree)	10cm	10cm	2.0m	2.0m	young	5-15yrs	dominant	low (2-3)	native	Decline	Z1	no	natural mulch	1.3m	2.0m	no works	5.0m	0%	Retain
2329.0	Dead Tree			8.0m			dead		dead		Hollow at 4m	Habit at	yes	mulch			no works	4.0m		Retain
2330.0	Eucalyptus microcorys (Tallowwood)	50cm	55cm	18.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.6m	6.0m	no works	8.5m	0%	Retain
2331.0	Eucalyptus botryoides (Bangalay)	40cm	40cm	20.0m	12.0m	mature	5-15yrs	codominant	low (2-3)	native	Excessive deadwood / Excessive epicormic growth	Z3	yes	mulch	2.3m	4.8m	external works	4.0m	4%	Retain
2332.0	Eucalyptus microcorys (Tallowwood)	40cm	50cm	20.0m	12.0m	semi mature	40+yrs	dominant	low (2-3)	native	Excessive deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.5m	4.8m	external works	3.0m	13%	Retain
2333.0	Eucalyptus botryoides (Bangalay)	40cm	45cm	14.0m	9.0m	semi mature	15-40yrs	dominant	average (3)	native	Deadwood / Epicormic growth	A	yes	mulch	2.4m	4.8m	external works	0.0m	100%	Remove
2334.0	Eucalyptus botryoides (Bangalay)	65cm	65cm	14.0m	24.0m	mature	15-40yrs	codominant	average (3)	native	Trunk wound from 0.7m to 1.4m with 2 bracket fungi / Excessive lean	Z4	yes	mulch	2.8m	7.8m	external works	0.0m	100%	Remove
2335.0	Dead Tree			16.0m			dead		dead		No hollows	Z	no	mulch			external works	2.0m		Retain
2336.0	Eucalyptus microcorys (Tallowwood)	50cm	70cm	18.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions / Deadwood	A	yes	mulch	2.8m	6.0m	external works	5.0m	4%	Retain
2337.0	Eucalyptus microcorys (Tallowwood)	30cm	35cm	19.0m	8.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions / Minor deadwood	A	yes	mulch	2.1m	3.6m	no works	7.5m	0%	Retain
2338.0	Eucalyptus microcorys (Tallowwood)	50cm	55cm	20.0m	12.0m	mature	40+yrs	codominant	low (2-3)	native	Epicormic growth / Included bark in branch unions / Deadwood	A	yes	mulch	2.6m	6.0m	no works	10.0m	0%	Retain
2339.0	Eucalyptus microcorys (Tallowwood)	40cm	45cm	17.0m	7.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions / Deadwood	A	yes	mulch	2.4m	4.8m	no works	11.0m	0%	Retain
2340.0	Eucalyptus saligna (Sydney Blue Gum)	55cm	65cm	26.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Trunk wound at 6m	A	yes	mulch	2.8m	6.6m	no works	13.0m	0%	Retain
2341.0	Eucalyptus saligna (Sydney Blue Gum)	30cm	40cm	15.0m	9.0m	young	40+yrs	codominant	average (3)	native	Deadwood	A	yes	mulch	2.3m	3.6m	no works	11.0m	0%	Retain
2342.0	Eucalyptus saligna (Sydney Blue Gum)	70cm	80cm	26.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Pruning events / Trunk wound hollow at 7m and trunk wound hollow at 6m on opposite side / Animal scratches / Mature epicormic growth	A	yes	mulch	3.0m	8.4m	no works	13.0m	0%	Retain
2343.0	Eucalyptus saligna (Sydney Blue Gum)	10cm	20cm	7.0m	2.0m	young	5-15yrs	dominant	average (3)	native	Trunk wound / Deadwood / Epicormic growth	Z1	yes	mulch	1.7m	2.0m	no works	19.0m	0%	Retain
2344.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	45cm	15.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Epicromic growth / Deformed trunk at 4m	A	yes	mulch	2.4m	4.8m	no works	18.0m	0%	Retain
2345.0	Eucalyptus saligna (Sydney Blue Gum)	55cm	70cm	26.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Pruning events / Trunk wound from 5m to 7m hollow	A	yes	mulch	2.8m	6.6m	no works	16.0m	0%	Retain
2346.0	Eucalyptus botryoides (Bangalay)	40cm	45cm	9.0m	9.0m	young	15-40yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Occluded trunk wound / Mature epicormic growth	A	yes	mulch	2.4m	4.8m	no works	20.0m	0%	Retain
2347.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	75cm	26.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Trunk hollow at 7m / Trunk hollow at 3m Deadwood / Pruning events / Canopy lift to 9m Epicormic growth	A	yes	mulch	2.9m	7.2m	no works	19.0m	0%	Retain
2348.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	26.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Hollow at 8m / Occluded trunk wound at 5m	A	yes	natural mulch	2.8m	7.2m	no works	17.0m	0%	Retain
2349.0	Eucalyptus microcorys (Tallowwood)	25cm	25cm	13.0m	4.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions	A	yes	mulch	1.8m	3.0m	no works	10.0m	0%	Retain
2350.0	Eucalyptus microcorys (Tallowwood)	50cm	55cm	20.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.6m	6.0m	no works	9.0m	0%	Retain

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2351.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	22.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.8m	7.2m	development	0.0m	18%	Retain
2352.0	Eucalyptus microcorys (Tallowwood)	65cm	75cm	20.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.9m	7.8m	external works	3.8m	18%	Retain
2353.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	26.0m	13.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Asymmetric canopy / Crossing branches at 6m (support)	A	yes	mulch	2.8m	7.2m	external works	2.0m	25%	Remove
2354.0	Eucalyptus saligna (Sydney Blue Gum)	120cm	#####	22.0m	20.0m	mature	40+yrs	dominant	good (4)	native	Pruning events / Scaffold trunk (A) wound at 4m with bracket fungi / Scaffold trunk (A) hollow at 7m / Scaffold trunk (B) wound at 7m with bracket fungi / Mature epicormic growth / Deadwood	A	yes	mulch	3.3m	14.4m	external works	0.0m	100%	Remove
2355.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	45cm	18.0m	8.0m	young	15-40yrs	codominant	average (3)	native	Excessive deadwood being one scaffold limb / trunk wound at 3m with bracket fungi	Z4	yes	mulch	2.4m	4.8m	external works	2.0m	24%	Remove
2356.0	Dead Tree			14.0m			dead		dead		No hollows	Z	no	mulch			no works	4.5m		Retain
2357.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	45cm	18.0m	7.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Trunk hollow at 3m / Trunk hollow at 4-5m	A	yes	mulch	2.4m	4.8m	no works	6.0m	0%	Retain
2358.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	26.0m	10.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Trunk hollow at 10m / Pruning events	A	yes	mulch	2.7m	6.0m	no works	17.0m	0%	Retain
2359.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	20.0m	12.0m	semi mature	40+yrs	codominant	good (4)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.7m	6.0m	no works	10.0m	0%	Retain
2360.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	50cm	20.0m	8.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood	A	yes	mulch	2.5m	4.8m	no works	10.0m	0%	Retain
2361.0	Eucalyptus microcorys (Tallowwood)	40cm	50cm	20.0m	14.0m	semi mature	40+yrs	codominant	good (4)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.5m	4.8m	no works	12.0m	0%	Retain
2362.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	20.0m	14.0m	mature	40+yrs	codominant	good (4)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.8m	6.0m	no works	21.0m	0%	Retain
2363.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	24.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Included bark in branch unions	A	yes	mulch	2.8m	6.0m	no works	23.0m	0%	Retain
2364.0	Eucalyptus sp (Gum Tree)	35cm	35cm	10.0m	8.0m	mature	15-40yrs	dominant	low (2-3)	native	Asymmetric canopy / Deadwood / Epicormic growth / Twig dieback	A	yes	mulch	2.1m	4.2m	development	0.0m	100%	Remove
2365.0	Eucalyptus botryoides (Bangalay)	80cm	90cm	24.0m	18.0m	mature	40+yrs	dominant	average (3)	indigenous	Deadwood / Mature epicormic growth / Minor previous failures	A	yes	grass	3.2m	9.6m	no works	30.0m	0%	Retain
2366.0	Eucalyptus microcorys (Tallowwood)	30cm	35cm	12.0m	8.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions / Minor deadwood	A	yes	mulch	2.1m	3.6m	no works	6.0m	0%	Retain
2367.0	Eucalyptus botryoides (Bangalay)	60cm	75cm	15.0m	9.0m	mature	15-40yrs	dominant	average (3)	native	Bracket fungi / Deadwood / Epicormic growth / Trunk wound at 1.5m to 2.5m / Dead limb into scaffold / Mature epicormic growth / Cankers on branches	Z4	yes	grass	2.9m	7.2m	development	0.0m	100%	Remove
2368.0	Olea europaea subsp. cuspidata (African Olive)	30cm	80cm	6.0m	8.0m	mature	15-40yrs	dominant	low (2-3)	exotic	Multiple attachments	Z1	no	grass	3.0m	3.6m	development	0.0m	100%	Remove
2369.0	Harpephyllum caffrum (Kaffir Plum)	10cm	20cm	5.0m	5.0m	young	5-15yrs	suppressed	decline (2)	exotic	Decline / Deadwood	Z1	yes	grass	1.7m	2.0m	development	0.0m	100%	Remove
2370.0	Ligustrum lucidium (Large Leaf Privet)	40cm	40cm	5.0m	5.0m	mature	40+yrs	suppressed	average (3)	exotic		Z2	no	natural mulch	2.3m	4.8m	development	0.0m	100%	Remove
2371.0	Cinnamomum camphora (Camphor Laurel)	120cm	#####	12.0m	20.0m	mature	40+yrs	dominant	average (3)	exotic	Multiple attachments (mature coppice growth) / Deadwood / Epicormic growth	A	no	grass	3.6m	14.4m	development	0.0m	100%	Remove
2372.0	Eucalyptus microcorys (Tallowwood)	80cm	70cm	13.0m	10.0m	mature	40+yrs	suppressed	average (3)	native	Minor deadwood / Kino at pruning wound	A	yes	mulch	2.8m	9.6m	external works	0.0m	100%	Remove
2373.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Included bark within branch unions / Epicormic growth / Kino in growth splits	A	yes	mulch	2.8m	6.0m	external works	0.0m	100%	Remove

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2374.0	Eucalyptus microcorys (Tallowwood)	80cm	90cm	24.0m	16.0m	mature	40+yrs	codominant	average (3)	native	Included bark within branch unions / Epicormic growth	A	yes	mulch	3.2m	9.6m	external works	0.0m	100%	Remove
2375.0	Eucalyptus microcorys (Tallowwood)	45cm	50cm	15.0m	10.0m	semi mature	40+yrs	codominant	average (3)	native	Included bark within branch unions	A	yes	mulch	2.5m	5.4m	external works	0.0m	100%	Remove
2376.0	Eucalyptus microcorys (Tallowwood)	55cm	65cm	20.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark within branch unions / Epicormic growth	A	yes	mulch	2.8m	6.6m	development	0.0m	100%	Remove
2377.0	Eucalyptus microcorys (Tallowwood)	65cm	75cm	22.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark within branch unions	A	yes	mulch	2.9m	7.8m	external works	0.0m	100%	Remove
2378.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	18.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Pruning events / Wounds with kino / Animal scratches	Z4	yes	mulch	2.8m	7.2m	external works	0.0m	100%	Remove
2379.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	22.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark within branch unions	A	yes	mulch	2.8m	7.2m	external works	0.0m	100%	Remove
2380.0	Eucalyptus microcorys (Tallowwood)	65cm	75cm	24.0m	18.0m	mature	40+yrs	codominant	average (3)	native	Minor deadwood / Included bark within scaffold branch union and others / Epicormic growth	A	yes	mulch	2.9m	7.8m	external works	0.0m	100%	Remove
2381.0	Corymbia citriodora (Lemon-scented Gum)	40cm	50cm	17.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	6m scaffold branch wound with kino / bark compression	A	yes	mulch	2.5m	4.8m	development	0.0m	100%	Remove
2382.0	Corymbia citriodora (Lemon-scented Gum)	50cm	65cm	17.0m	20.0m	mature	40+yrs	codominant	average (3)	native	4m scaffold branch (A) wound with kino / 8m scaffold branch (B) wound with kino / Minor deadwood	A	yes	mulch	2.8m	6.0m	development	0.0m	100%	Remove
2383.0	Corymbia citriodora (Lemon-scented Gum)	25cm	35cm	15.0m	8.0m	young	40+yrs	codominant	average (3)	native	Compressed bark	A	yes	mulch	2.1m	3.0m	development	0.0m	100%	Remove
2384.0	Corymbia citriodora (Lemon-scented Gum)	40cm	50cm	15.0m	10.0m	semi mature	40+yrs	dominant	average (3)	native	Compressed bark / Deadwood	A	yes	mulch	2.5m	4.8m	development	0.0m	100%	Remove
2385.0	Eucalyptus globulus subsp bicostata (Southern Blue Gum)	40cm	90cm	14.0m	8.0m	young	15-40yrs	dominant	average (3)	native	Codominant trunk removed (decaying) / Mature coppice growth / Horizontal trunk wound with kino	Z4	yes	mulch	3.2m	4.8m	development	0.0m	100%	Remove
2386.0	Corymbia citriodora (Lemon-scented Gum)	45cm	55cm	18.0m	14.0m	semi mature	40+yrs	codominant	average (3)	native	Compressed bark / Minor deadwood	A	yes	mulch	2.6m	5.4m	external works	2.0m	27%	Remove
2387.0	Corymbia citriodora (Lemon-scented Gum)	78cm	1m	26.0m	20.0m	mature	40+yrs	dominant	average (3)	native	Compressed bark / Minor deadwood	A	yes	mulch	3.3m	9.4m	development	1.0m	43%	Remove
2388.0	Corymbia citriodora (Lemon-scented Gum)	15cm	25cm	9.0m	3.0m	young	40+yrs	dominant	average (3)	native	No significant issues sighted	Z1	yes	mulch	1.8m	2.0m	external works	1.5m	7%	Retain
2389.0	Corymbia citriodora (Lemon-scented Gum)	40cm	45cm	18.0m	14.0m	semi mature	40+yrs	codominant	average (3)	native	Minor deadwood	A	yes	mulch	2.4m	4.8m	raised deck	1.0m	1%	Retain
2390.0	Corymbia citriodora (Lemon-scented Gum)	30cm	40cm	14.0m	10.0m	young	40+yrs	codominant	average (3)	native	Basal trunk wound / Deadwood	A	yes	mulch	2.3m	3.6m	external works	0.0m	100%	Remove
2391.0	Corymbia citriodora (Lemon-scented Gum)	60cm	70cm	24.0m	20.0m	mature	40+yrs	dominant	average (3)	native	Growth splits / Small trunk wound with kino / Compressed bark / Minor deadwood / Kino from 1st scaffold union at 4.5m	A	yes	mulch	2.8m	7.2m	development	0.0m	100%	Remove
2392.0	Eucalyptus saligna (Sydney Blue Gum)	55cm	60cm	24.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Pruning events / Trunk wound with kino and bark cracking	A	yes	mulch	2.7m	6.6m	development	0.0m	100%	Remove
2393.0	Eucalyptus scoparia (Wallangara White Gum)	45cm	50cm	14.0m	9.0m	mature	<5yrs	codominant	severe decline (1)	native	Epicormic growth / Deadwood / Twig Dieback / Decline	Z3	yes	mulch	2.5m	5.4m	external works	5.0m	2%	Retain
2394.0	Corymbia citriodora (Lemon-scented Gum)	64cm	1m	19.0m	20.0m	mature	40+yrs	codominant	average (3)	native	Hanger / Deadwood / Compressed Bark	A	yes	mulch	3.3m	7.7m	external works	1.0m	42%	Remove
2395.0	Corymbia citriodora (Lemon-scented Gum)	10cm	20cm	10.0m	8.0m	young	40+yrs	codominant	average (3)	native	5cm diameter scaffold wound	Z1	yes	mulch	1.7m	2.0m	external works	0.0m	100%	Remove
2396.0	Corymbia citriodora (Lemon-scented Gum)	25cm	30cm	10.0m	12.0m	young	15-40yrs	suppressed	average (3)	native	Heavily supressed / Asymmetric canopy / Minor deadwood	Z8	yes	mulch	2.0m	3.0m	raised deck	0.0m	4%	Retain
2397.0	Eucalyptus saligna (Sydney Blue Gum)	70cm	70cm	26.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Pruning events / Minor twig dieback / Trunk wound at 1.5m with borer evidence / Termite mud	A	yes	mulch	2.8m	8.4m	no works	12.0m	0%	Retain

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2398.0	Corymbia citriodora (Lemon-scented Gum)	5cm	10cm	7.0m	6.0m	young	40+yrs	dominant	average (3)	native	No significant issues sighted	Z1	yes	mulch	1.3m	2.0m	external works	2.8m	0%	Retain
2399.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	20.0m	16.0m	mature	40+yrs	dominant	average (3)	native	Epicormic growth / Minor deadwood / Included bark in branch unions	A	yes	mulch	2.7m	6.0m	external works	5.2m	3%	Retain
2400.0	Eucalyptus tereticornis (Forest Red Gum)	60cm	65cm	26.0m	18.0m	mature	40+yrs	dominant	low (2-3)	native	Mature epicormic growth / Minor deadwood / Numerous small trunk wounds	A	yes	mulch	2.8m	7.2m	no works	11.0m	0%	Retain
2401.0	Eucalyptus scoparia (Wallangara White Gum)	60cm	65cm	13.0m	9.0m	mature	5-15yrs	dominant	decline (2)	native	Significant epicormic growth / Twig dieback / Decline / Trunk wound	Z3	yes	mulch	2.8m	7.2m	external works	5.5m	7%	Retain
2402.0	Eucalyptus saligna (Sydney Blue Gum)	55cm	65cm	25.0m	12.0m	mature	40+yrs	dominant	average (3)	native	Scaffold wound and deadwood at 2m / Mature epicormic growth	A	yes	mulch	2.8m	6.6m	no works	13.0m	0%	Retain
2403.0	Eucalyptus saligna (Sydney Blue Gum)	45cm	55cm	24.0m	12.0m	mature	15-40yrs	codominant	average (3)	native	Trunk wound at 3m / Trunk wound at dead scaffold at 5m / Minor bark splits (drought)	A	yes	mulch	2.6m	5.4m	no works	9.0m	0%	Retain
2404.0	Corymbia citriodora (Lemon-scented Gum)	40cm	45cm	18.0m	13.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood	A	yes	mulch	2.4m	4.8m	raised deck	0.0m	1%	Retain
2405.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	21.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Included bark in scaffold union / Termite mud in surface bark / Pruning events / Epicormic growth	A	yes	mulch	2.8m	7.2m	outdoor play area retaining wall	4.5m	13%	Retain
2406.0	Corymbia citriodora (Lemon-scented Gum)	22cm	40cm	12.0m	9.0m	young	15-40yrs	codominant	decline (2)	native	Poor form	Z1	yes	mulch	2.3m	2.6m	raised deck	2.5m	1%	Retain
2407.0	Eucalyptus microcorys (Tallowwood)	40cm	50cm	15.0m	13.0m	semi mature	40+yrs	dominant	average (3)	native	Asymmetric canopy / Epicormic growth / Pruning events / Included bark in branch unions / Canopy lifted (5m to 10m)	A	yes	mulch	2.5m	4.8m	outdoor play area	1.0m	37%	Remove
2408.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	24.0m	13.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Pruning events / Included bark in branch unions / Canopy lifted	A	yes	mulch	2.7m	6.0m	raised deck	5.0m	1%	Retain
2409.0	Eucalyptus microcorys (Tallowwood)	45cm	55cm	26.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Included bark in branch unions / Included bark in scaffold branch unions x 2 / Termite mud in surface bark	A	yes	mulch	2.6m	5.4m	no works	5.5m	0%	Retain
2410.0	Eucalyptus microcorys (Tallowwood)	30cm	40cm	9.0m	9.0m	young	15-40yrs	suppressed	average (3)	native	Suppressed with poor form / Deadwood	Z1	yes	mulch	2.3m	3.6m	no works	12.0m	0%	Retain
2411.0	Eucalyptus microcorys (Tallowwood)	55cm	65cm	25.0m	18.0m	mature	40+yrs	dominant	average (3)	native	Epicormic growth / Pruning events / Included bark in branch unions	A	yes	mulch	2.8m	6.6m	no works	11.0m	0%	Retain
2412.0	Eucalyptus leucoxylon (Yellow Gum)	45cm	50cm	20.0m	8.0m	mature	40+yrs	codominant	average (3)	native	Canopy lifted	A	yes	mulch	2.5m	5.4m	no works	15.0m	0%	Retain
2413.0	Corymbia citriodora (Lemon-scented Gum)	10cm	15cm	10.0m	4.0m	young	40+yrs	dominant	average (3)	native	No significant issues sighted	Z1	yes	mulch	1.5m	2.0m	no works	16.0m	0%	Retain
2414.0	Eucalyptus parramattensis (Parramatta Red Gum)	30cm	40cm	14.0m	8.0m	mature	15-40yrs	dominant	average (3)	native	Canopy lifted / Epicormic growth	A	yes	mulch	2.3m	3.6m	no works	18.0m	0%	Retain
2415.0	Eucalyptus microcorys (Tallowwood)	45cm	50cm	16.0m	9.0m	semi mature	40+yrs	dominant	average (3)	native	Included bark in branch unions	A	yes	mulch	2.5m	5.4m	no works	19.0m	0%	Retain
2416.0	Dead Tree			10.0m			dead		dead		No hollows	Z	no	mulch			no works	22.0m		Retain
2417.0	Corymbia citriodora (Lemon-scented Gum)	50cm	50cm	16.0m	9.0m	mature	40+yrs	dominant	average (3)	native	Trunk wounds / Pruning events / Bark compression	A	yes	mulch	2.5m	6.0m	no works	24.0m	0%	Retain
2418.0	Corymbia citriodora (Lemon-scented Gum)	40cm	45cm	17.0m	10.0m	semi mature	40+yrs	dominant	average (3)	native	Asymmetric canopy / Deadwood / Growth splits	A	yes	mulch	2.4m	4.8m	no works	27.0m	0%	Retain
2419.0	Eucalyptus botryoides (Bangalay)	55cm	60cm	26.0m	12.0m	mature	40+yrs	dominant	average (3)	native	Pruning events / Canopy lifted (pruned from 4 to 12m)	A	yes	mulch	2.7m	6.6m	no works	24.0m	0%	Retain
2420.0	Eucalyptus parramattensis (Parramatta Red Gum)	20cm	30cm	9.0m	6.0m	semi mature	15-40yrs	dominant	average (3)	native	Deadwood / Twig dieback / Borer evidence	Z1	yes	mulch	2.0m	2.4m	no works	27.0m	0%	Retain
2421.0	Eucalyptus botryoides (Bangalay)	50cm	50cm	20.0m	10.0m	mature	40+yrs	codominant	average (3)	native	Mature epicormic growth	A	yes	mulch	2.5m	6.0m	no works	33.0m	0%	Retain

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2422.0	Corymbia citriodora (Lemon-scented Gum)	30cm	40cm	11.0m	6.0m	young	40+yrs	intermediate	average (3)	native	Minor deadwood	A	yes	mulch	2.3m	3.6m	no works	36.0m	0%	Retain
2423.0	Corymbia citriodora (Lemon-scented Gum)	30cm	40cm	9.0m	7.0m	young	15-40yrs	suppressed	average (3)	native	Poor form / Asymmetric canopy	Z1	yes	mulch	2.3m	3.6m	no works	27.0m	0%	Retain
2424.0	Corymbia citriodora (Lemon-scented Gum)	60cm	70cm	15.0m	23.0m	mature	40+yrs	codominant	average (3)	native	Included bark in branch unions / deadwood stub into scaffold union	A	yes	mulch	2.8m	7.2m	no works	40.0m	0%	Retain
2425.0	Eucalyptus saligna (Sydney Blue Gum)	70cm	80cm	22.0m	10.0m	mature	40+yrs	dominant	average (3)	native	Pruning events / Trunk wound at at 6m / Small trunk wound at 9m / Epicormic growth	A	yes	mulch	3.0m	8.4m	no works	36.0m	0%	Retain
2426.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	22.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Trunk wound at 4m / Pruning events / Epicormic growth / Scaffold branch wound at 10m / Minor trunk spits	A	yes	mulch	2.8m	7.2m	no works	30.0m	0%	Retain
2427.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	65cm	24.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Basal trunk wound / Growth splits / Deadwood / Epicormic growth	A	yes	mulch	2.8m	6.0m	no works	35.0m	0%	Retain
2428.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	24.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Pruning events / Epicormic growth	A	yes	mulch	2.8m	7.2m	no works	30.0m	0%	Retain
2429.0	Eucalyptus saligna (Sydney Blue Gum)	45cm	65cm	20.0m	14.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in the codominant trunk union with wound	A	yes	mulch	2.8m	5.4m	no works	28.0m	0%	Retain
2430.0	Eucalyptus saligna (Sydney Blue Gum)	70cm	80cm	26.0m	18.0m	mature	40+yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Trunk wound with cankers / Borer evidence / Pruning events / Cockatoo damage / Kino at scaffold branch (B) union	A	yes	mulch	3.0m	8.4m	no works	20.0m	0%	Retain (further invest)
2431.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	50cm	22.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Trunk wound from 0.5m to 1.5m / Trunk wound at 3m to 3.5m / Pruning events / Deadwood	A	yes	mulch	2.5m	6.0m	no works	20.0m	0%	Retain (further invest)
2432.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	18.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Minor deadwood / Epicormic growth / Included bark within branch unions	A	yes	mulch	2.8m	6.0m	no works	10.0m	0%	Retain
2433.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	18.0m	13.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Included bark within branch unions	A	yes	mulch	2.7m	6.0m	no works	8.0m	0%	Retain
2434.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	18.0m	14.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Epicormic growth / Pruning events / Occluded trunk wound / Water sprouts / Growth splits	A	yes	mulch	2.7m	6.0m	no works	8.0m	0%	Retain
2435.0	Dead Tree			5.0m			dead		dead		Hollows	Habitat	yes	mulch			no works	3.0m		Retain
2436.0	Eucalyptus microcorys (Tallowwood)	45cm	50cm	13.0m	10.0m	semi mature	40+yrs	dominant	average (3)	native	Deadwood / Included bark within branch unions / Epicormic growth / Pruning events	A	yes	mulch	2.5m	5.4m	development	0.0m	100%	Remove
2437.0	Eucalyptus microcorys (Tallowwood)	50cm	5cm	14.0m	16.0m	semi mature	40+yrs	dominant	average (3)	native	Deadwood / Included bark within branch unions / Epicormic growth / Slight asymmetric canopy	A	yes	mulch	0.9m	6.0m	development	0.0m	100%	Remove
2438.0	Dead Tree			8.0m			dead		dead		Hollows	Habitat	yes	mulch			external works	0.0m		Remove (relocate)
2439.0	Eucalyptus microcorys (Tallowwood)	55cm	60cm	13.0m	12.0m	mature	40+yrs	dominant	average (3)	native	Asymmetric canopy / Minor twig dieback / Included bark in branch unions	A	yes	mulch	2.7m	6.6m	external works	0.0m	100%	Remove
2440.0	Callistemon viminalis (Weeping Bottlebrush)	70cm	60cm	8.0m	8.0m	mature	15-40yrs	dominant	good (4)	native	No significant issues sighted	Z1	yes	grass	2.7m	8.4m	development	0.5m	46%	Remove
2441.0	Callistemon viminalis (Weeping Bottlebrush)	71cm	80cm	6.0m	9.0m	mature	15-40yrs	dominant	average (3)	native	No significant issues sighted	Z1	yes	grass	3.0m	8.5m	development	0.0m	100%	Remove
2442.0	Callistemon viminalis (Weeping Bottlebrush)	50cm	60cm	5.0m	8.0m	mature	15-40yrs	dominant	average (3)	native	No significant issues sighted	Z1	yes	grass	2.7m	6.0m	development	0.0m	100%	Remove
2443.0	Eucalyptus microcorys (Tallowwood)	65cm	77cm	26.0m	20.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in branch unions / Asymmetric canopy / Epicormic growth	A	yes	mulch	3.0m	7.8m	external works	2.0m	34%	Remove
2444.0	Eucalyptus microcorys (Tallowwood)	20cm	25cm	7.0m	5.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth	Z1	yes	mulch	1.8m	2.4m	external works	1.0m	24%	Retain

Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2445.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	26.0m	13.0m	mature	40+yrs	codominant	average (3)	native	Included bark inscaffold branch union and other unions / Epicormic growth / Minor deadwood / Previous failures	A	yes	mulch	2.7m	6.0m	no works	8.0m	0%	Retain
2446.0	Eucalyptus microcorys (Tallowwood)	50cm	55cm	24.0m	12.0m	semi mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in branch unions / Epicormic growth	A	yes	mulch	2.6m	6.0m	external works	5.0m	4%	Retain
2447.0	Eucalyptus microcorys (Tallowwood)	55cm	65cm	22.0m	16.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Included bark in scaffold branch union and others / Epicormic growth	A	yes	mulch	2.8m	6.6m	external works	4.5m	10%	Retain
2448.0	Eucalyptus microcorys (Tallowwood)	40cm	45cm	8.0m	12.0m	semi mature	15-40yrs	dominant	average (3)	native	Epicormic growth / Apical leader failed	A	yes	mulch	2.4m	4.8m	external works	4.0m	4%	Retain
2449.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	65cm	24.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Dead scaffold stub / Deadwood / Epicormic growth / Pruning events	A	yes	mulch	2.8m	7.2m	no works	9.0m	0%	Retain
2450.0	Eucalyptus microcorys (Tallowwood)	40cm	45cm	18.0m	10.0m	semi mature	40+yrs	codominant	average (3)	native	Included bark in branch unions / Epicormic growth / Pruning events / Deadwood	A	yes	mulch	2.4m	4.8m	no works	7.5m	0%	Retain
2451.0	Eucalyptus microcorys (Tallowwood)	20cm	20cm	8.0m	6.0m	young	15-40yrs	codominant	average (3)	native	Excessive deadwood	Z1	yes	mulch	1.7m	2.4m	no works	8.0m	0%	Retain
2452.0	Eucalyptus microcorys (Tallowwood)	45cm	55cm	20.0m	14.0m	mature	40+yrs	codominant	average (3)	native	Pruning events / Included bark at branch unions / Excessive epicormic growth	A	yes	mulch	2.6m	5.4m	no works	11.0m	0%	Retain
2453.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	50cm	17.0m	8.0m	semi mature	5-15yrs	suppressed	low (2-3)	native	Trunk wound / Deadwood / Decline / Previous failure of apical leader / Upper trunk wound at 5m / Watersprouts	Z4	yes	mulch	2.5m	4.8m	no works	15.0m	0%	Retain (further invest)
2454.0	Eucalyptus microcorys (Tallowwood)	45cm	50cm	20.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Included bark in scaffold branch unions and others / Epicormic growth / Deadwood	A	yes	mulch	2.5m	5.4m	no works	9.0m	0%	Retain
2455.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	18.0m	10.0m	semi mature	40+yrs	dominant	average (3)	native	Included bark in branch unions / Epicormic growth	A	yes	mulch	2.7m	6.0m	no works	7.0m	0%	Retain
2456.0	Eucalyptus microcorys (Tallowwood)	25cm	30cm	8.0m	8.0m	young	40+yrs	dominant	average (3)	native	Included bark in branch unions	A	yes	mulch	2.0m	3.0m	no works	4.5m	0%	Retain
2457.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	20.0m	8.0m	mature	15-40yrs	dominant	decline (2)	native	Two scaffold limbs removed at 3m / Excessive deadwood / Epicormic growth	Z3	yes	mulch	2.8m	7.2m	outdoor play area retaining wall	3.5m	20%	Remove
2458.0	Eucalyptus microcorys (Tallowwood)	30cm	45cm	20.0m	10.0m	semi mature	40+yrs	codominant	average (3)	native	Minor deadwood / Pruning events / Included bark at scaffold branch unions and others / Epicormic growth	A	yes	mulch	2.4m	3.6m	no works	6.0m	0%	Retain
2459.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	55cm	16.0m	10.0m	semi mature	5-15yrs	codominant	average (3)	native	Dieback of scaffold limb at 6m / Epicormic growth / Deadwood	Z3	yes	mulch	2.6m	6.0m	raised deck	5.5m	1%	Retain
2460.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	50cm	18.0m	10.0m	semi mature	40+yrs	dominant	average (3)	native	Trunk splits / Minor trunk wound / Pruning events	A	yes	mulch	2.5m	6.0m	external works	9.0m	0%	Retain
2461.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	24.0m	14.0m	mature	15-40yrs	codominant	low (2-3)	native	Scaffold wound at 3m / Occluded trunk wound at 1.5m / Basal trunk wound / Epicormic growth / Pruning events / Stress	A	yes	mulch	2.7m	6.0m	no works	8.0m	0%	Retain
2462.0	Eucalyptus saligna (Sydney Blue Gum)	40cm	50cm	16.0m	8.0m	semi mature	15-40yrs	codominant	low (2-3)	native	Deadwood / Canopy lifted / Trunk wound at 2.5m / Live crown ratio 10%	Z4	yes	mulch	2.5m	4.8m	no works	7.5m	0%	Retain (further invest)
2463.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	65cm	26.0m	18.0m	mature	40+yrs	dominant	average (3)	native	Trunk splits / Pruning events / Deadwood / Occluded trunk wound at 7m / Pruning wound at 8m	A	yes	mulch	2.8m	7.2m	no works	9.0m	0%	Retain
2464.0	Eucalyptus saligna (Sydney Blue Gum)	65cm	75cm	26.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Trunk wound at 1m / Numerous minor trunk wounds / Borer evidence / Growth splits / Pruning events / Epicormic growth / Suspect scaffold wound at 13m	A	yes	mulch	2.9m	7.8m	outdoor play area retaining wall	5.0m	12%	Retain
2465.0	Eucalyptus saligna (Sydney Blue Gum)	30cm	45cm	20.0m	12.0m	semi mature	15-40yrs	suppressed	average (3)	native	Occluding trunk wound at 1.5m / Previous failures / Pruning events / Minor deadwood	Z4	yes	mulch	2.4m	3.6m	no works	8.0m	0%	Retain (further invest)
2466.0	Eucalyptus saligna (Sydney Blue Gum)	60cm	70cm	23.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Trunk wound at 8m / Deadwood / Included bark in branch unions	A	yes	mulch	2.8m	7.2m	outdoor play area retaining wall	5.0m	10%	Retain

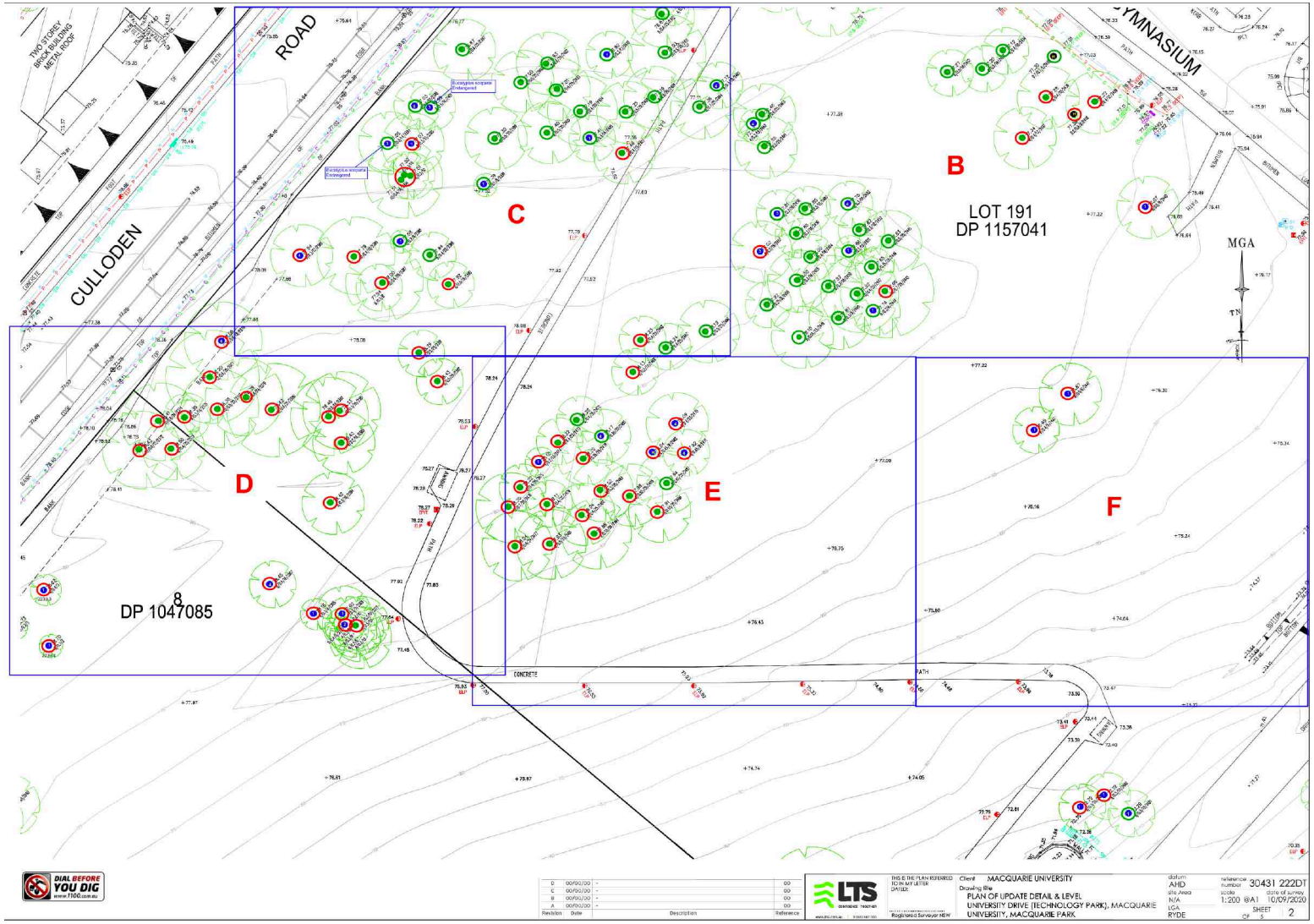
Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2467.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	60cm	25.0m	13.0m	mature	40+yrs	codominant	average (3)	native	Deadwood / Trunk and branch wound / Epicormic growth / Occluded small trunk wound	A	yes	mulch	2.7m	6.0m	outdoor play area retaining wall	4.5m	6%	Retain
2468.0	Corymbia citriodora (Lemon-scented Gum)	45cm	50cm	17.0m	10.0m	mature	40+yrs	codominant	average (3)	native	Bark compression / Minor deadwood / Included bark in scaffold branch union	A	yes	mulch	2.5m	5.4m	outdoor play area retaining wall	2.5m	31%	Remove
2469.0	Corymbia citriodora (Lemon-scented Gum)	10cm	20cm	11.0m	6.0m	young	40+yrs	codominant	average (3)	native	No significant issues sighted	A	yes	mulch	1.7m	2.0m	outdoor play area retaining wall	0.2m	44%	Remove
2470.0	Corymbia citriodora (Lemon-scented Gum)	40cm	50cm	20.0m	12.0m	semi mature	15-40yrs	dominant	low (2-3)	native	Scaffold wound with kino	Z4	yes	mulch	2.5m	4.8m	outdoor play area	0.0m	50%	Remove
2471.0	Eucalyptus saligna (Sydney Blue Gum)	45cm	55cm	8.0m	10.0m	semi mature	5-15yrs	dominant	average (3)	native	Two trunk wounds / Pruning events	Z4	yes	mulch	2.6m	5.4m	outdoor play area	0.0m	50%	Remove
2472.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Deadwood hanger / Epicormic growth / Asymmetric canopy / Pruning events / Included bark in branch unions	A	yes	mulch	2.7m	6.0m	active play area	0.0m	1%	Remove
2473.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	25.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Excessive epicormic growth / Included bark in scaffold branch union and others / Deadwood / Canopy lifted to 7m	A	yes	mulch	2.8m	6.0m	development	1.5m	34%	Remove
2474.0	Eucalyptus microcorys (Tallowwood)	20cm	25cm	11.0m	5.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth	Z1	yes	mulch	1.8m	2.4m	development	0.0m	100%	Remove
2475.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	26.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Canopy lifted to 5m / Include bark in scaffold branch union and others / Asymmetric canopy / Epicormic growth	A	yes	mulch	2.7m	6.0m	development	0.0m	100%	Remove
2476.0	Eucalyptus microcorys (Tallowwood)	70cm	80cm	26.0m	17.0m	mature	40+yrs	dominant	average (3)	native	Epicormic growth / Pruning events / included bark in branch unions / Asymmetric canopty	A	yes	mulch	3.0m	8.4m	development	0.0m	100%	Remove
2477.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	26.0m	14.0m	mature	40+yrs	dominant	average (3)	native	Deadwood / Epicormic growth / Pruning events / included bark in branch unions	A	yes	mulch	2.8m	7.2m	development	0.0m	100%	Remove
2478.0	Eucalyptus microcorys (Tallowwood)	45cm	55cm	26.0m	10.0m	semi mature	40+yrs	codominant	average (3)	native	Canopy lifted to 7m / Epicormic growth / Included bark in branch unions / Deadwood	A	yes	mulch	2.6m	5.4m	development	0.0m	100%	Remove
2479.0	Eucalyptus microcorys (Tallowwood)	40cm	50cm	23.0m	8.0m	semi mature	40+yrs	dominant	average (3)	native	canopy lifted to 5m / Included bark within the scaffold branch union and others / Epicormc growth	A	yes	mulch	2.5m	4.8m	active play area	0.0m	100%	Remove
2480.0	Eucalyptus microcorys (Tallowwood)	50cm	60cm	7.0m	1.5m	mature	15-40yrs	dominant	severe decline (1)	native	Trunk failure / Canopy is 100% epicormic growth	Z4	yes	mulch	2.7m	6.0m	raised deck	0.0m	1%	Retain
2481.0	Eucalyptus microcorys (Tallowwood)	55cm	65cm	23.0m	13.0m	mature	40+yrs	dominant	average (3)	native	Epicormic growth / Pruning events / included bark in scaffold branch unions and others / Deadwood	A	yes	mulch	2.8m	6.6m	development	0.0m	100%	Remove
2482.0	Eucalyptus microcorys (Tallowwood)	50cm	65cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Canopy lifted to 13m / Include bark in branch unions / Epicormic growth / Deadwood	A	yes	mulch	2.8m	6.0m	development	0.0m	100%	Remove
2483.0	Eucalyptus microcorys (Tallowwood)	30cm	45cm	18.0m	9.0m	young	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions / Deadwood	A	yes	mulch	2.4m	3.6m	external works	0.0m	100%	Remove
2484.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Asymmetric canopy / Epicormic growth / Included bark in scaffold branch union and others / Deadwood	A	yes	mulch	2.8m	7.2m	development	0.0m	100%	Remove
2485.0	Eucalyptus microcorys (Tallowwood)	60cm	70cm	26.0m	16.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions / Deadwood / Pruning events	A	yes	mulch	2.8m	7.2m	active play area	0.0m	100%	Remove
2486.0	Eucalyptus microcorys (Tallowwood)	60cm	75cm	24.0m	18.0m	mature	40+yrs	codominant	average (3)	native	Epicormic growth / Included bark in branch unions / Deadwood / Pruning events	A	yes	mulch	2.9m	7.2m	development	3.0m	24%	Remove
2487.0	Eucalyptus saligna (Sydney Blue Gum)	50cm	55cm	24.0m	12.0m	mature	40+yrs	codominant	average (3)	native	Asymmetric canopy / Minor epicormic growth	A	yes	mulch	2.6m	6.0m	raised deck	0.0m	1%	Retain
2488.0	Dead Tree			8.0m			dead		dead		Hollow	Habitat	yes	mulch			active play area	0.0m		Remove (relocate)

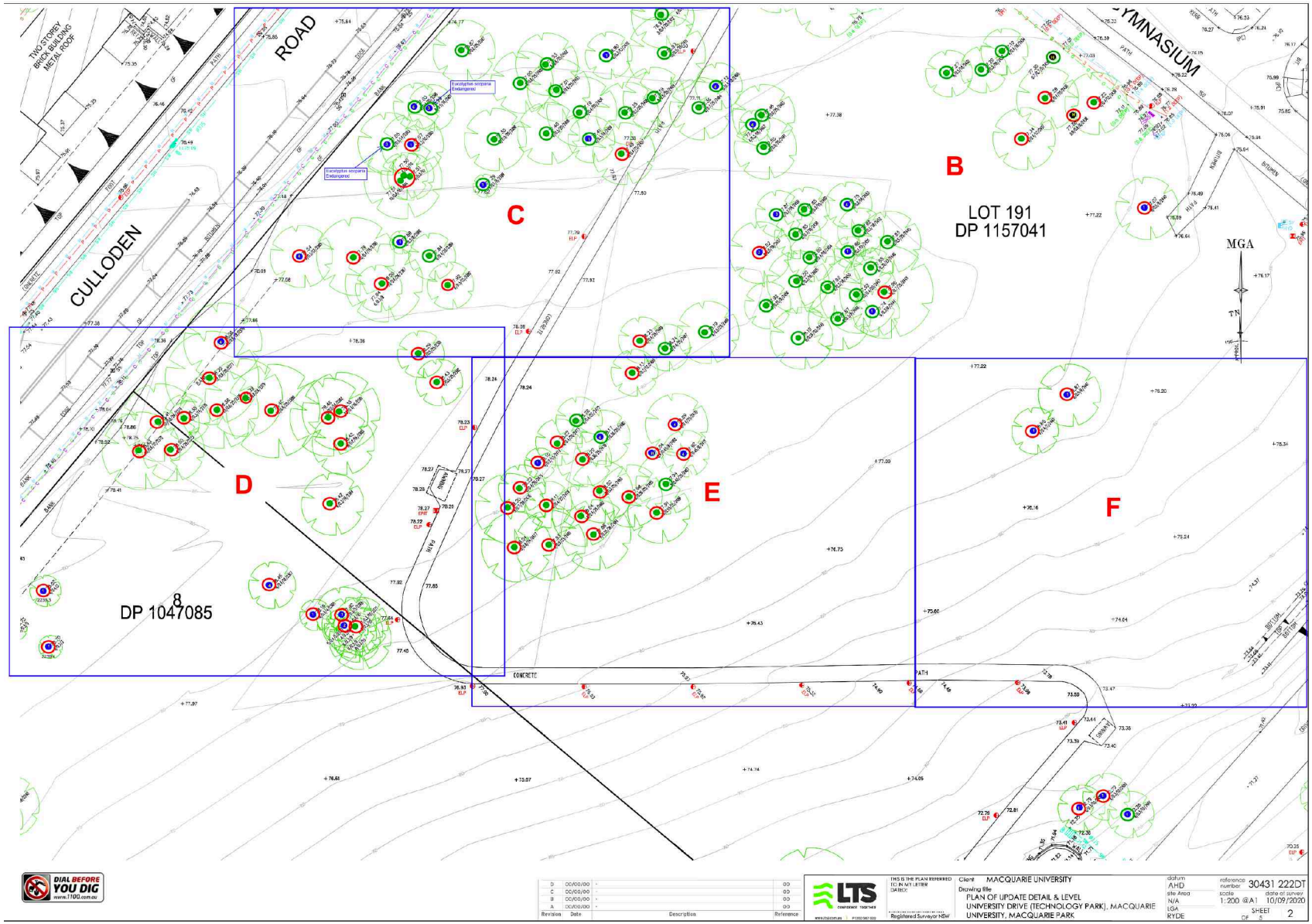
Tree no.	Species	DBH	DGL	Height	Canopy	Age	Life Expec	Crown Class	Crown Cond	Type	Health & Condition	Tree AZ	TPO Pro	Root Zone	SRZ	TPZ	Proposed Works	Distance	Prop Encr	Proposed Status
2489.0	Ficus microcarpa var. hillii (Hills Weeping Fig)	40cm	50cm	8.0m	9.0m	young	40+yrs	dominant	average (3)	native	Sooty mould / Surface roots	Z1	yes	grass	2.5m	4.8m	development	0.0m	100%	Remove
2490.0	Ficus microcarpa var. hillii (Hills Weeping Fig)	45cm	35cm	9.0m	10.0m	young	40+yrs	dominant	average (3)	native	Sooty mould / Surface roots	Z1	yes	grass	2.1m	5.4m	development	0.0m	100%	Remove
2491.0	Ficus microcarpa var. hillii (Hills Weeping Fig)	24cm	30cm	8.0m	8.0m	young	40+yrs	dominant	good (4)	native	Sooty mould / Surface roots	Z1	yes	grass	2.0m	2.9m	development	2.2m	7%	Retain

Appendix B - Tree Schedule Definitions & Information

Location	Adjoining Property / Nature Strip / On Site	
Dimensions	Diameter at breast height (1.4m) (mm) DBH Diameter at ground level (mm) DGL Approximate height x canopy spread (m) H x C	
Age Class	Sapling / Young / Semi mature / Mature / Over mature / Senescent	
Life Expectancy	>5 years / 5-15 years / 15-40 years / 40+ years	
Crown Class	Dominant Co-dominant Intermediate Suppressed Dead	Crown extends above general canopy; not restricted by other trees. Crown forms the bulk of the general canopy but crowded by other trees. Crown extends into dominant / co dominant canopy but quite crowded on all sides. Crown development restricted from overgrowing trees. Dead Tree
Crown Condition / Vitality	1 Severe decline 2 Declining 3 Average / low vigour 4 Good 5 Excellent	<20% canopy density; major dead wood 20-60% canopy density; twig and branch dieback 60-90% canopy density; twig dieback 90-100% canopy density; little or no dieback or other problems 100% canopy density; no deadwood or other problems
Tree Type	Endemic	Species that occur naturally and are restricted to a given area.
	Exotic	An introduced plant from outside Australia.
	Indigenous	Species that occur naturally to a given area but may not be restricted to only that area.
	Native	A general term referring to any plant indigenous to Australia including cultivars.
Root Zone	Compacted / Garden / Grass / Mulched / Natural Bush / Paved / Soil level lowered / Soil level raised	

Appendix C - Tree Locations




ROAD
CULLODEN
TWO STOREY BRICK BUILDING METAL ROOF
GYMNASIUM
C
B
LOT 191
DP 1157041
MGA
D
E
F
DP 1047085
CONCRETE
PATH
DIAL BEFORE YOU DIG
www.1100.com.au
LTS
Client MACQUARIE UNIVERSITY
Drawing title
PLAN OF UPDATE DETAIL & LEVEL
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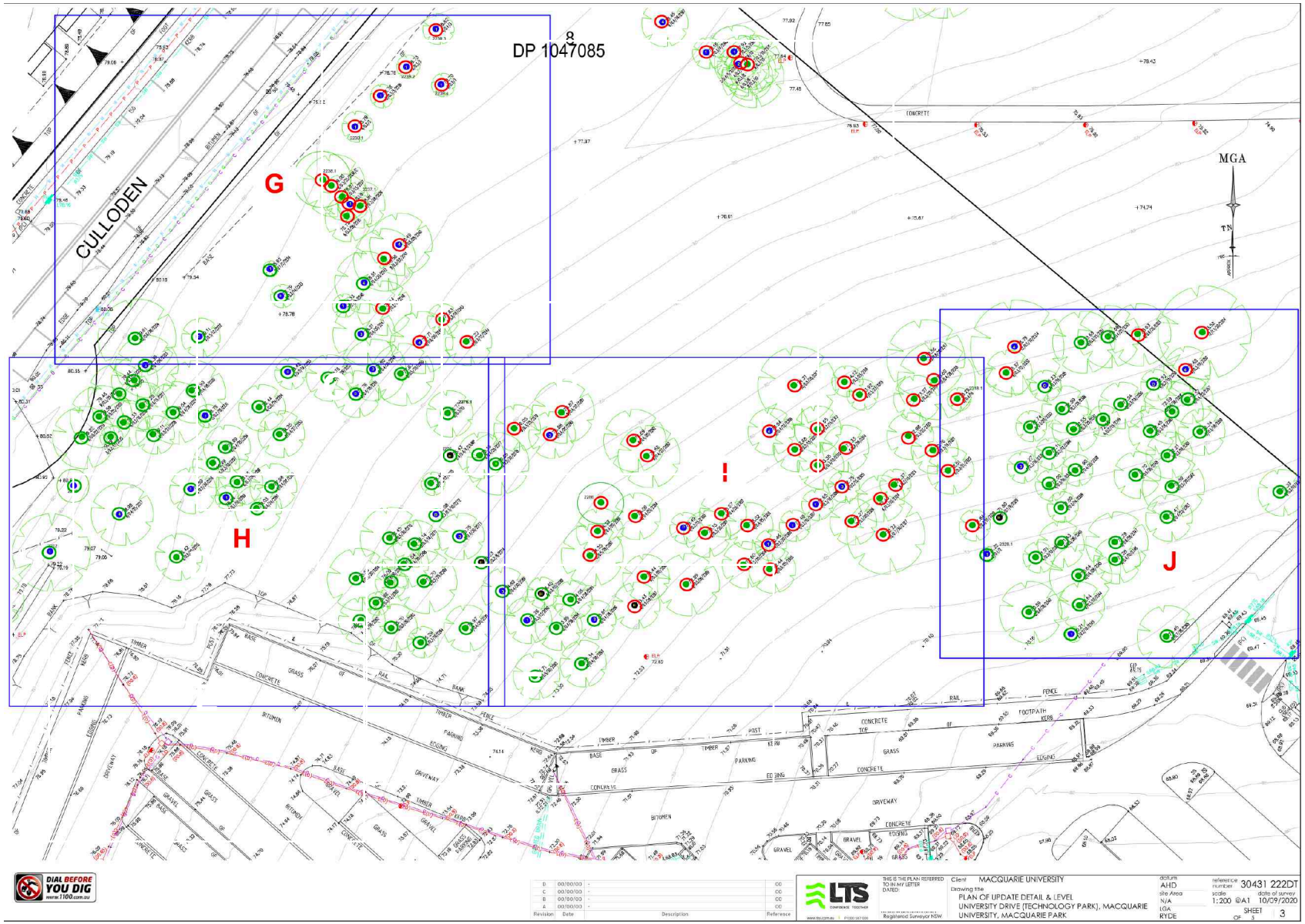
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DIAL BEFORE YOU DIG
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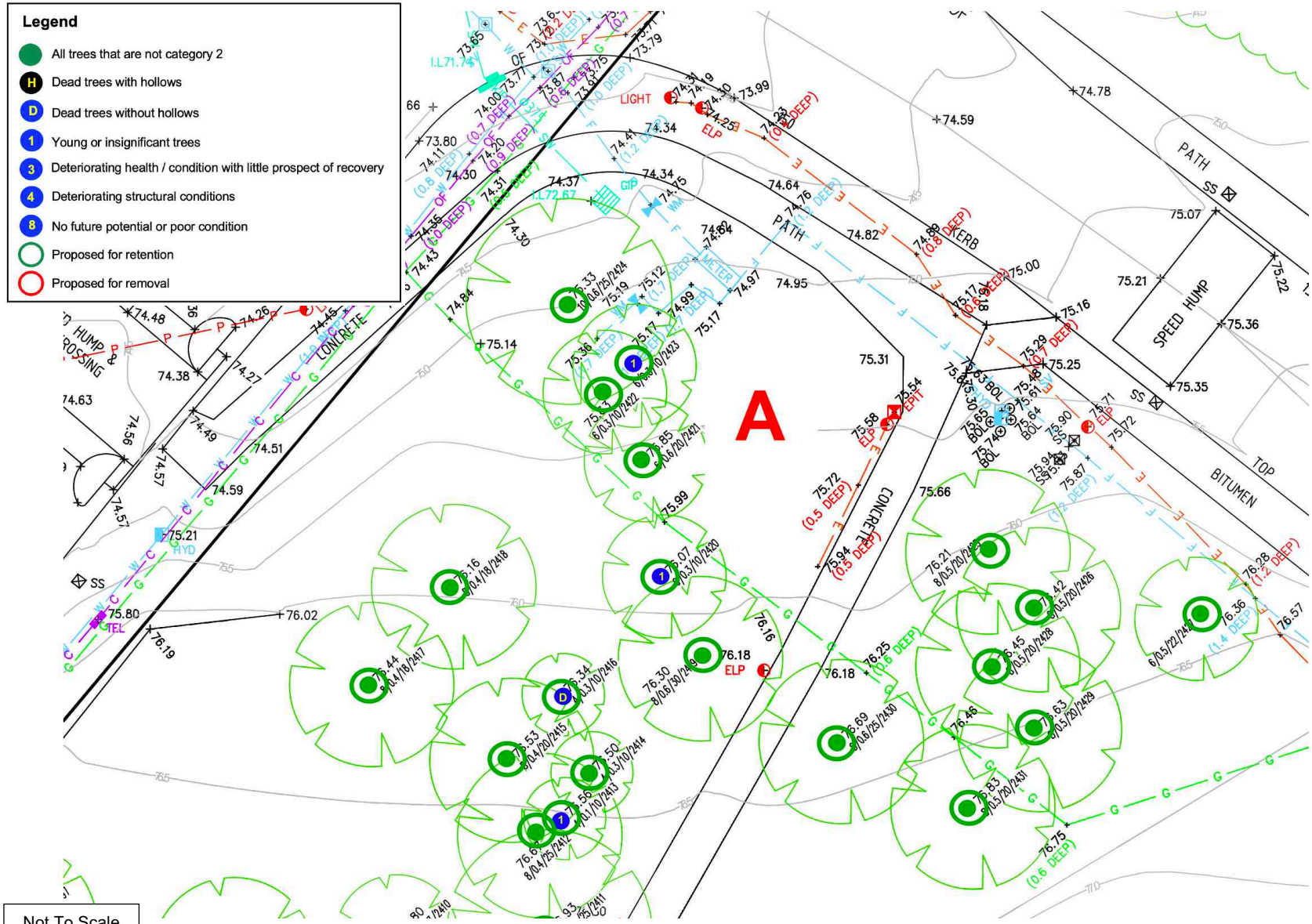
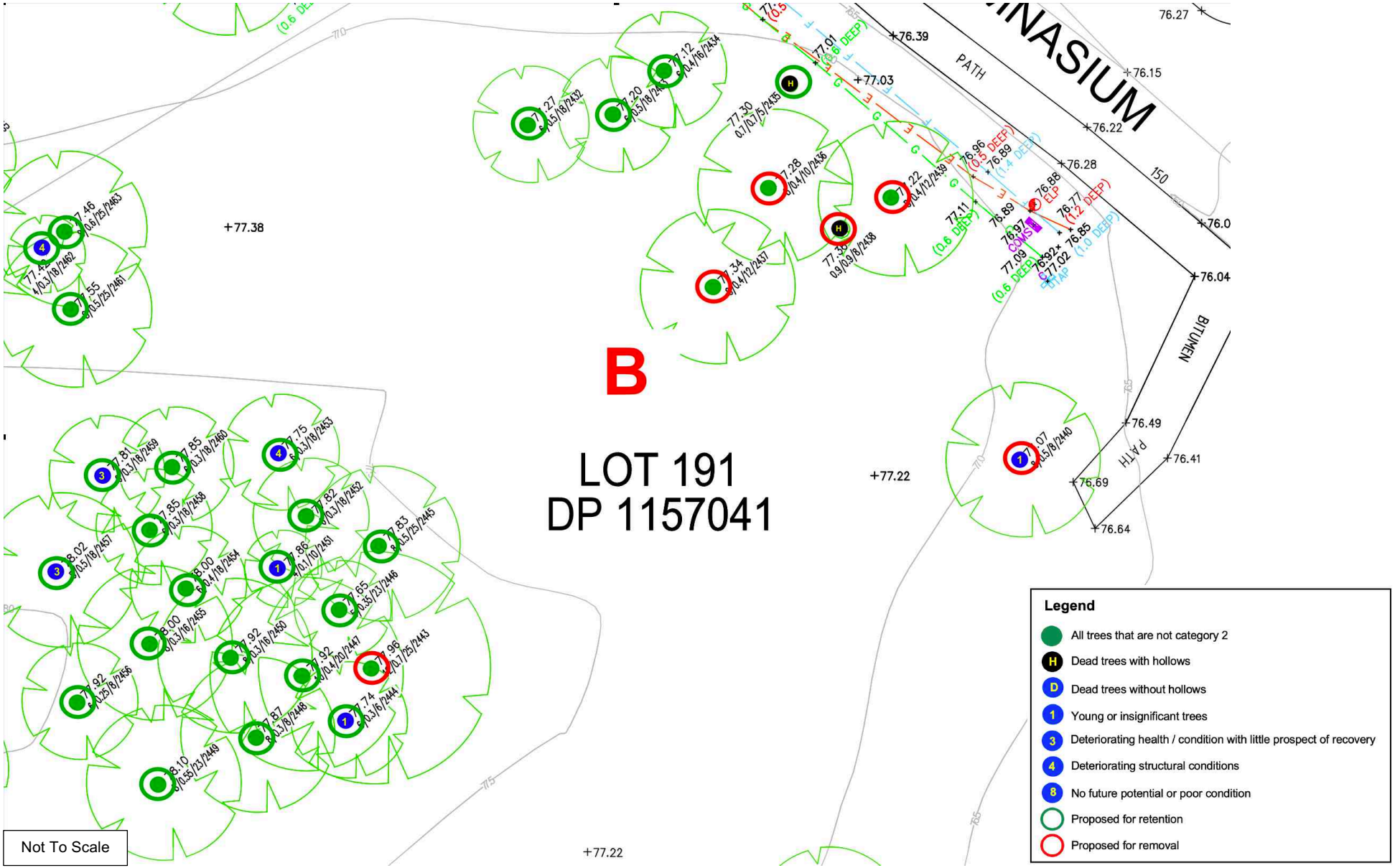

Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal
A
SPEED HUMP
PATH
BITUMEN
CONCRETE
LIGHT
ELP
TEL
HYD
SS
Not To Scale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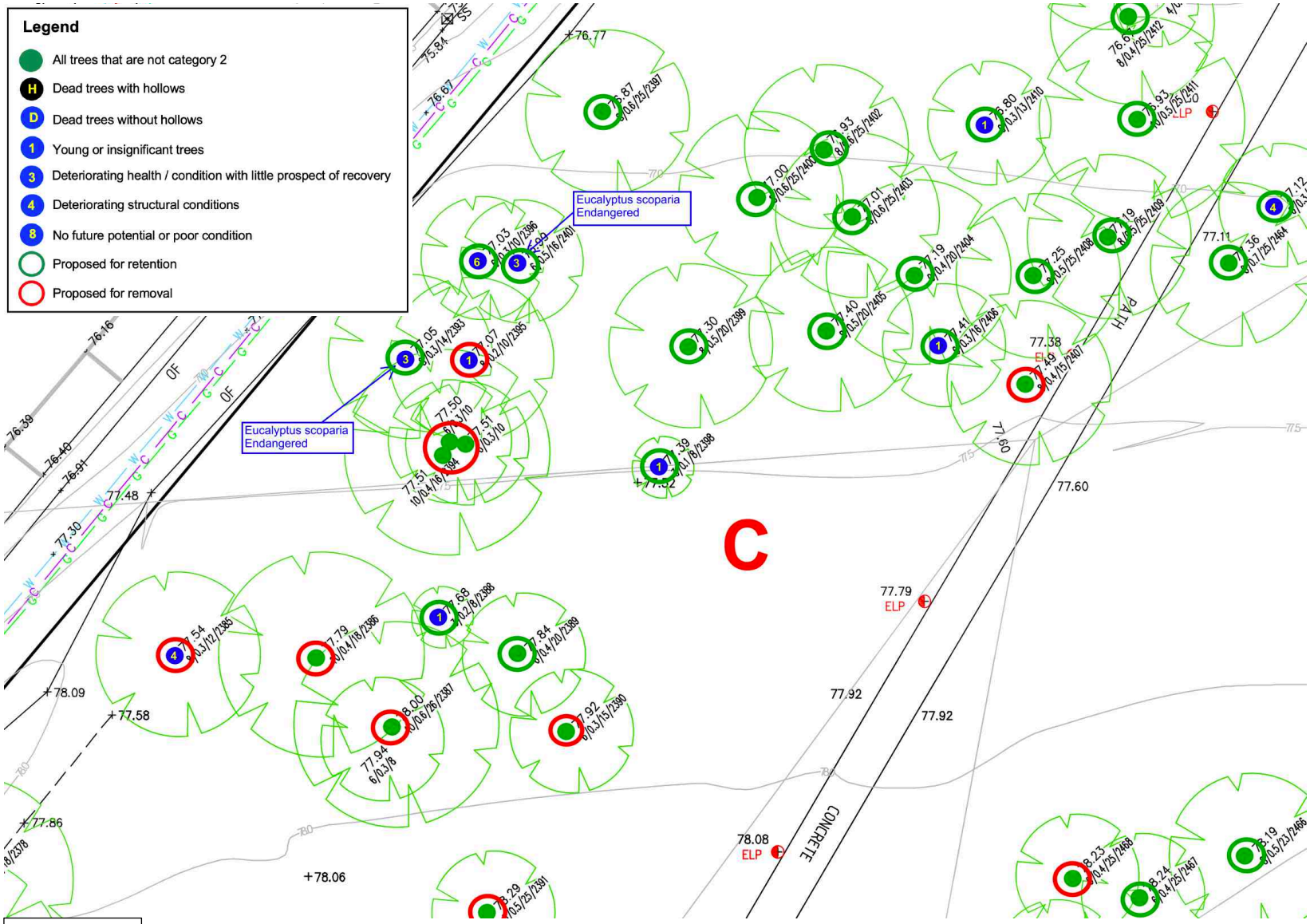
LOT 191
DP 1157041
Not To Scale
Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal


Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal
Eucalyptus scoparia
Endangered
Eucalyptus scoparia
Endangered
C
PATH
CONCRETE
ELP
77.79
ELP
78.08
ELP
77.38
ELP
77.60
77.92
77.92
77.48
77.30
78.09
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76.91
76.16
77.11
OF
OF

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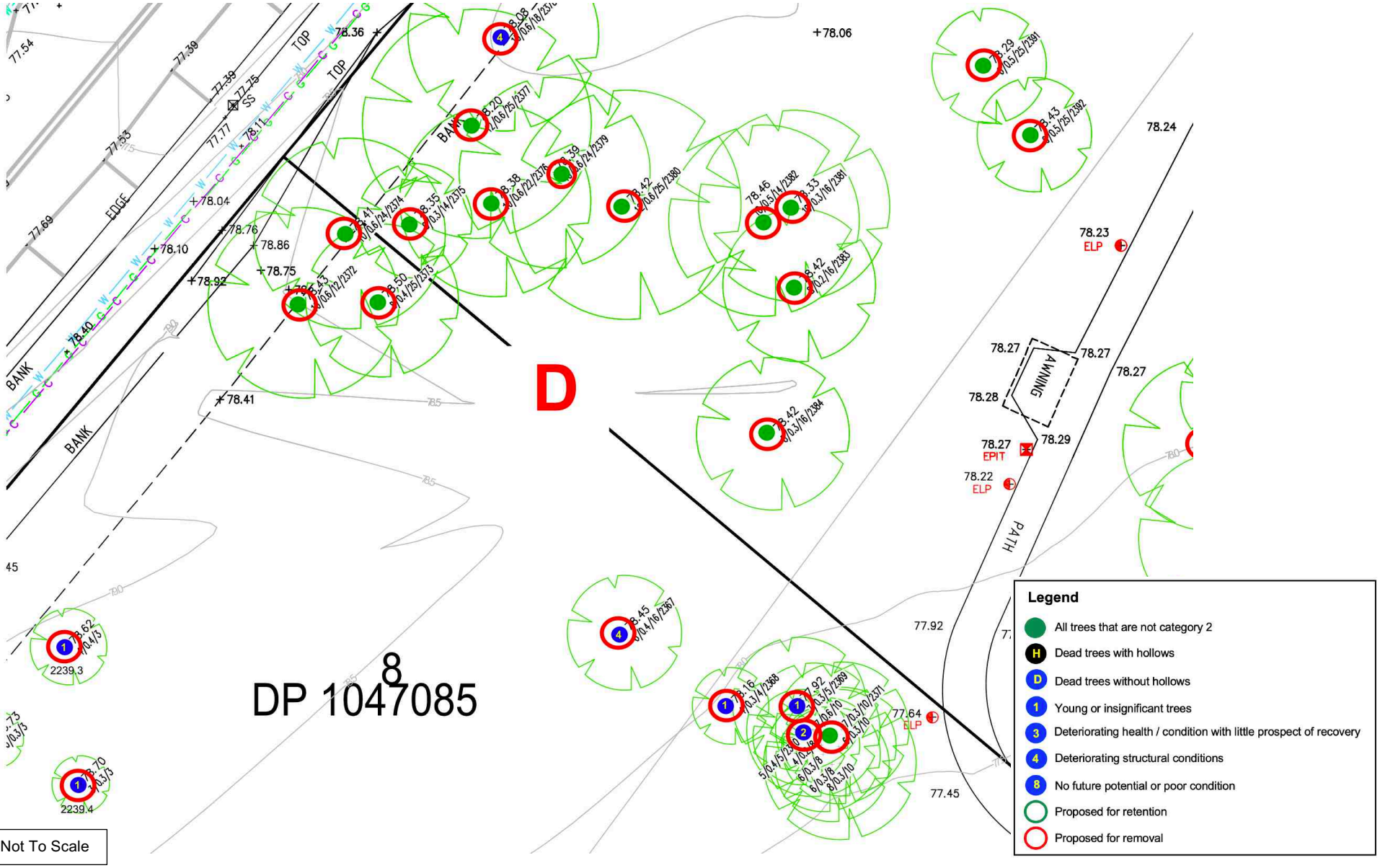
D
DP 1047085
8
Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal
Not To Scale
BANK
EDGE
TOP
AWNING
PATH
ELP
EPIT
78.06
78.24
78.23
78.27
78.28
78.29
78.22
77.92
77.64
77.45
78.36
78.41
78.76
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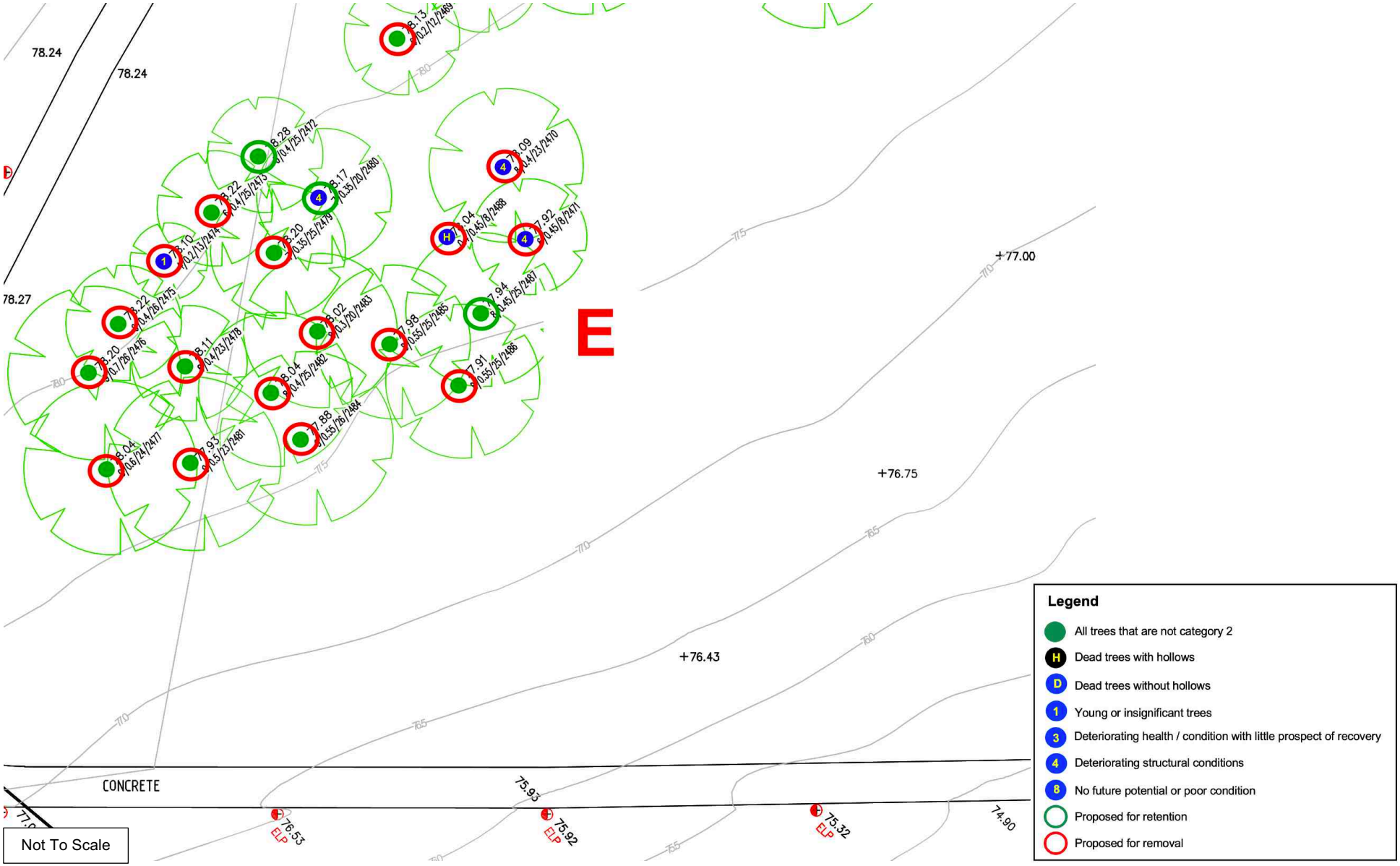
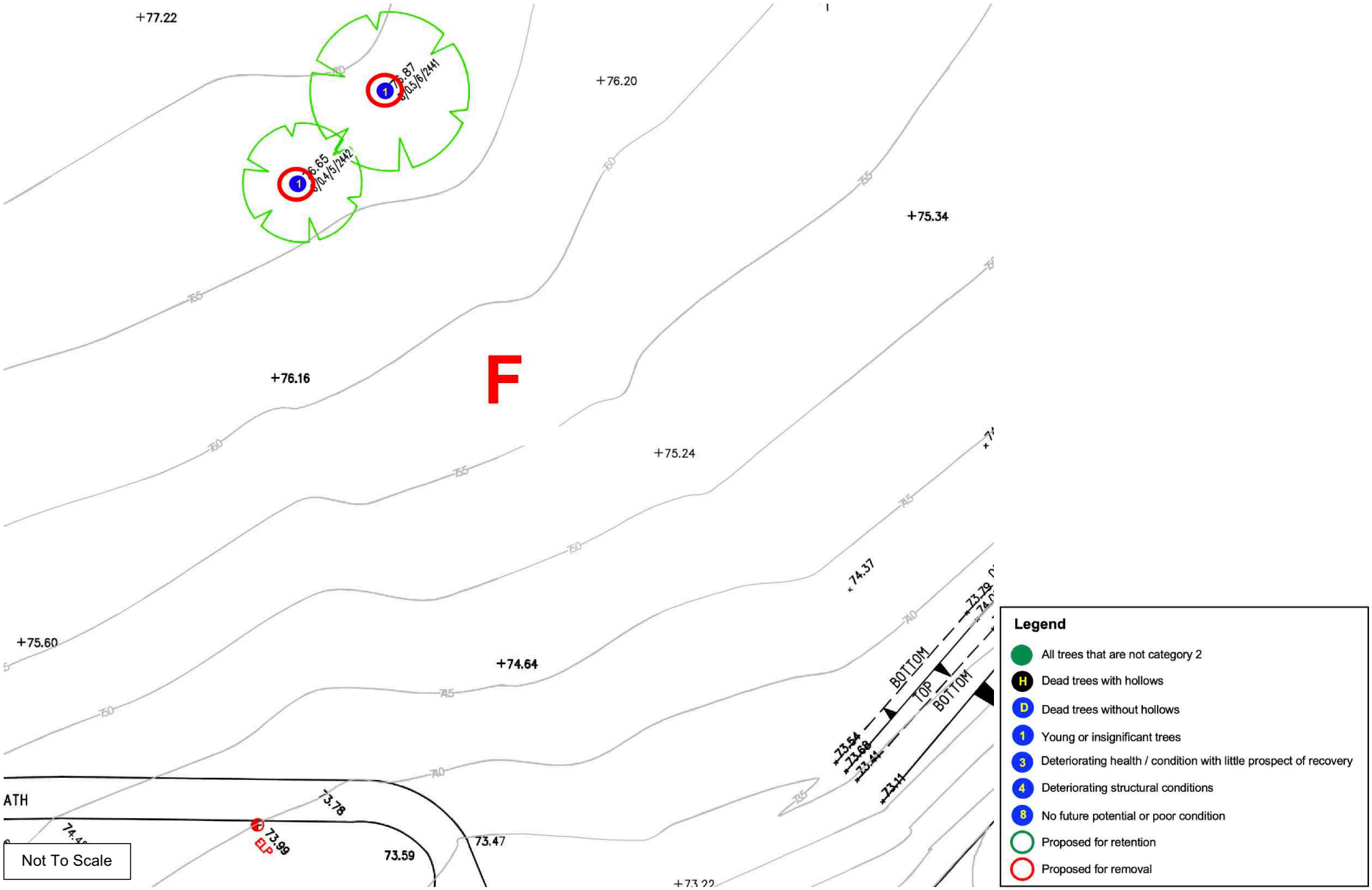
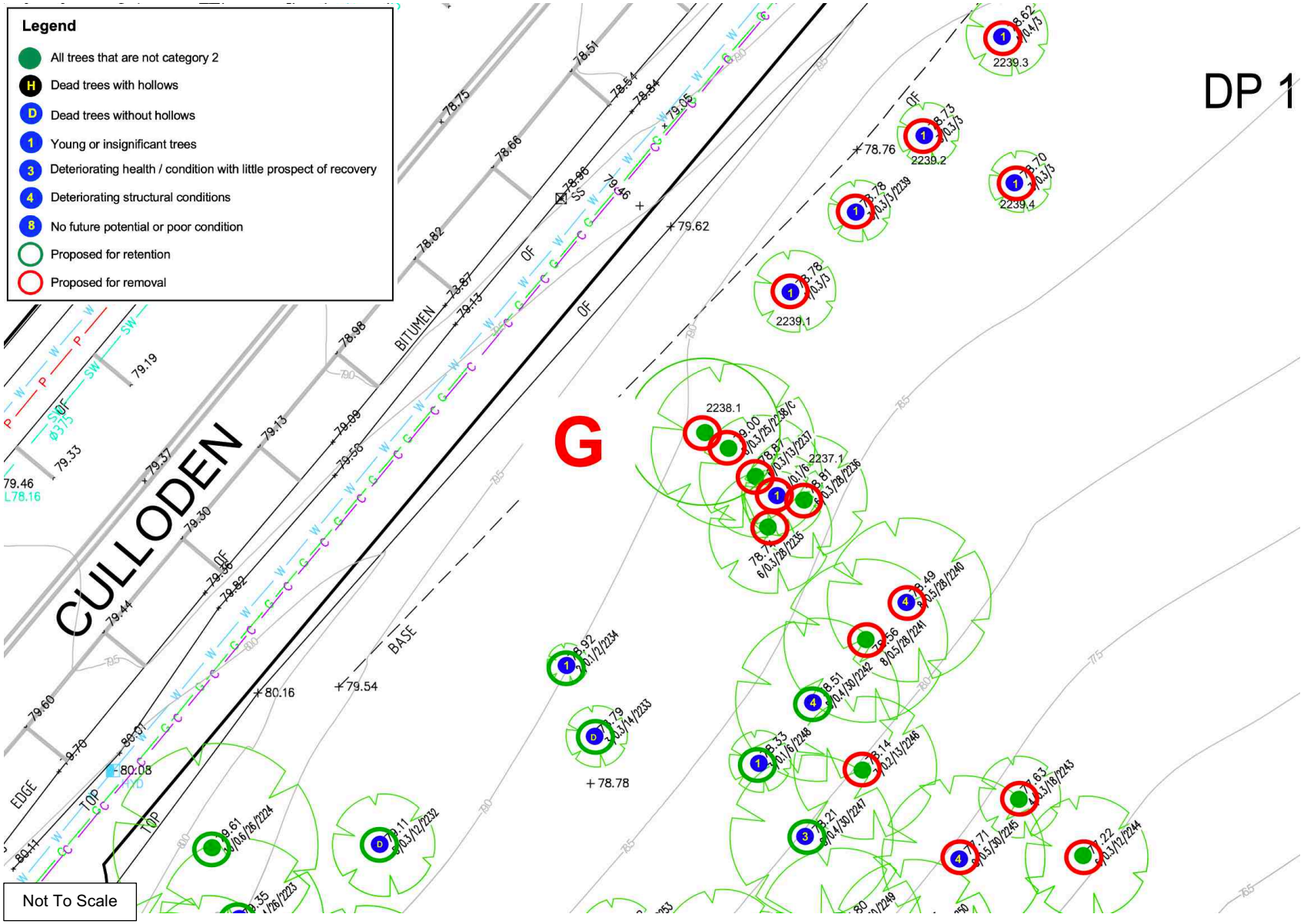
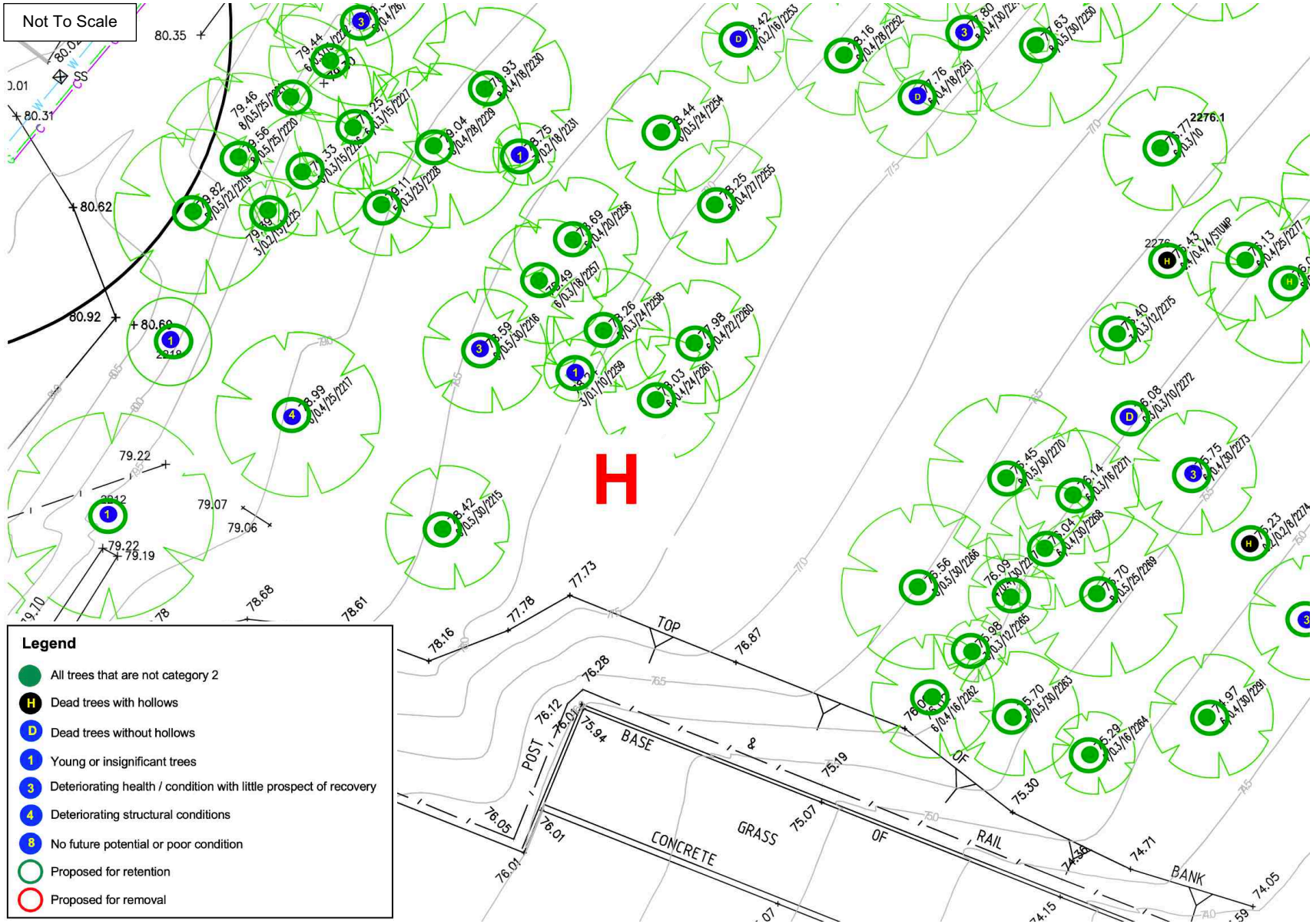
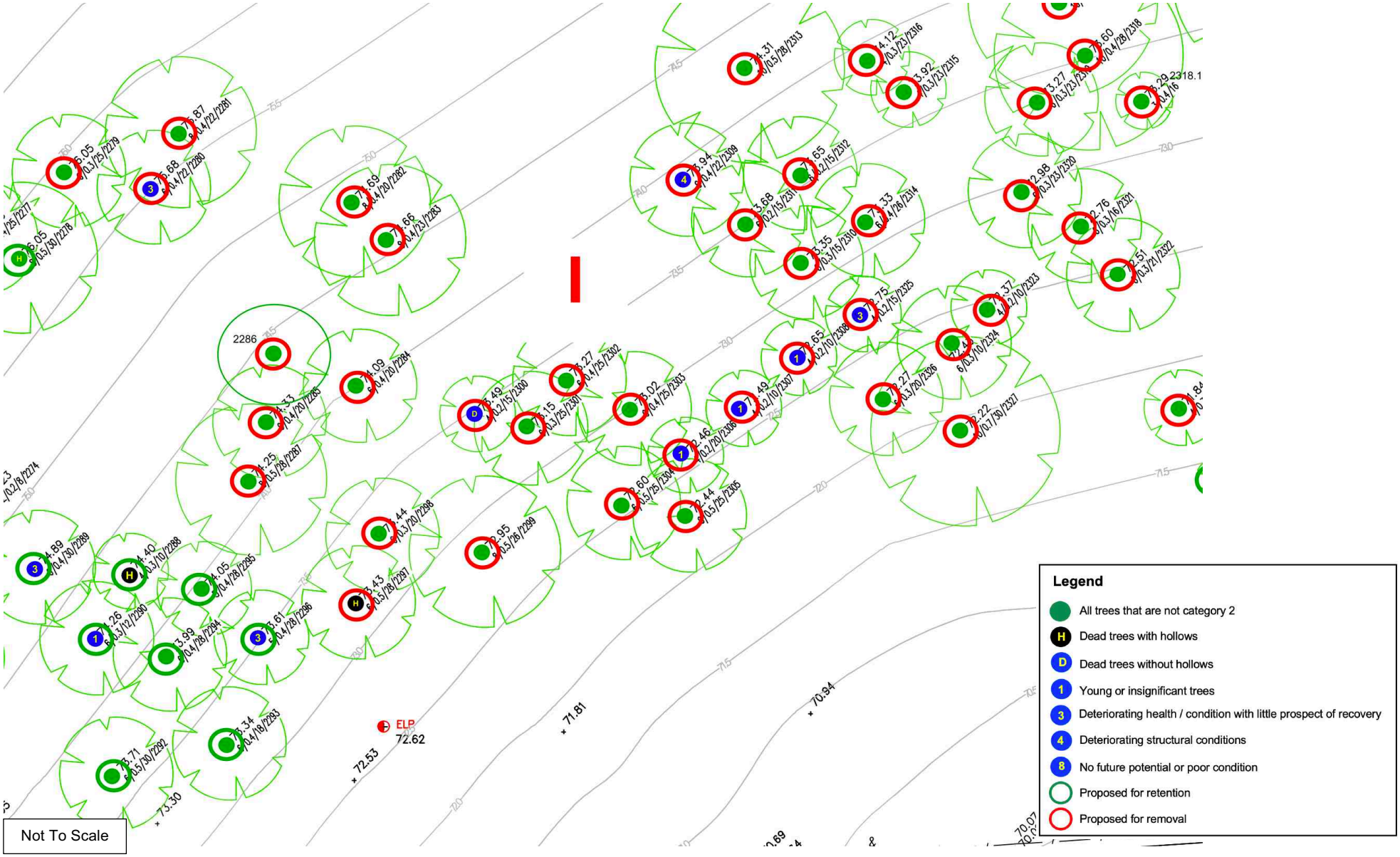
2239.3
2239.4

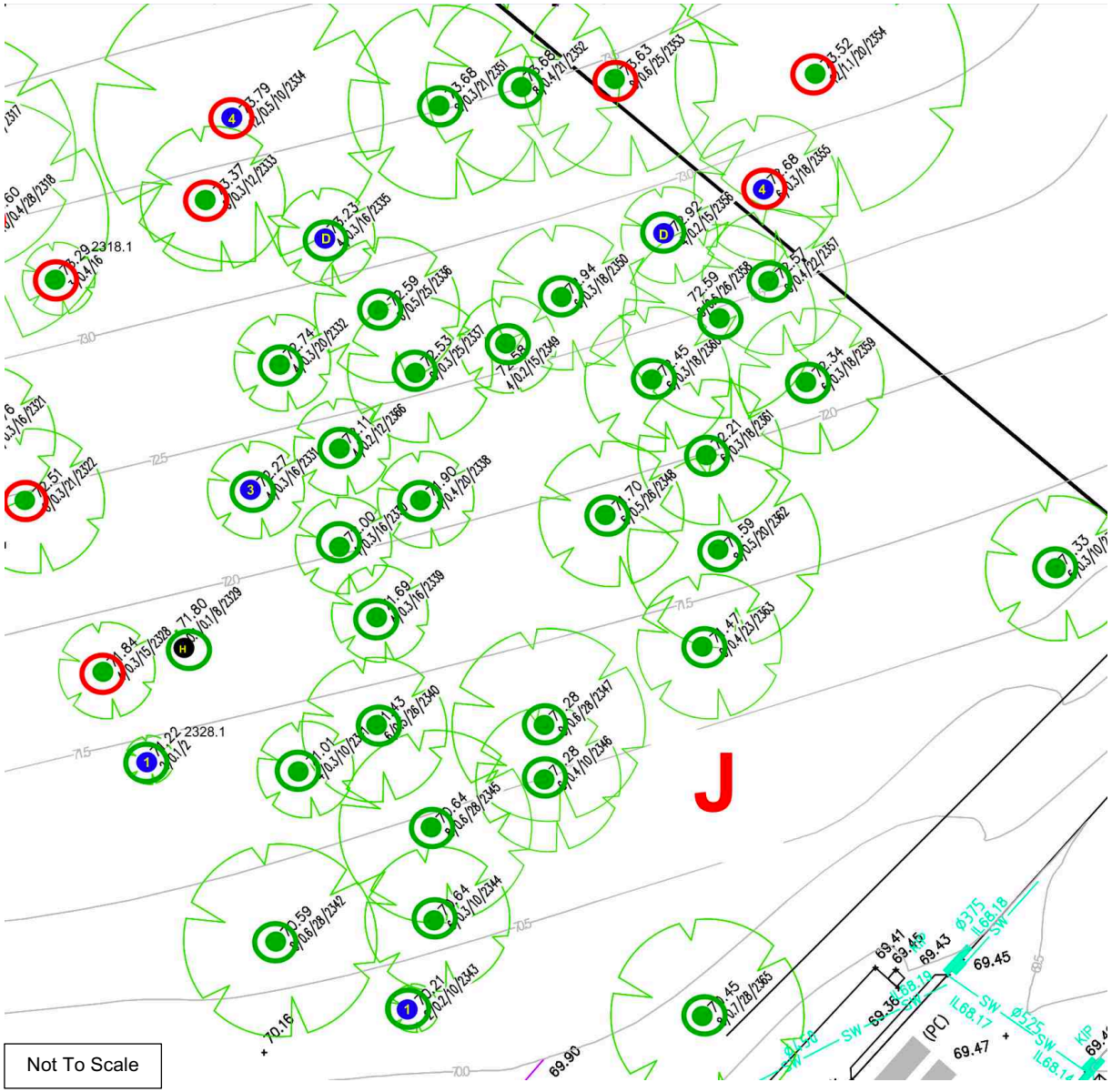

78.24
78.24
78.27
E
+77.00
+76.75
+76.43
CONCRETE
75.93
76.53
ELP
75.92
ELP
75.32
ELP
74.90
Not To Scale
Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal


+77.22
+76.20
+75.34
+76.16
F
+75.24
+75.60
+74.64
+74.37
BOTTOM
TOP
BOTTOM
ATH
73.78
73.99
BP
73.59
73.47
73.54
73.68
73.44
73.41
Not To Scale
Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal


Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal
DP 1
G
CULLODEN
BITUMEN
BASE
EDGE
TOP
OF
Not To Scale


Not To Scale
Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal
H
TOP
OF
BANK
BASE
&
POST
CONCRETE
GRASS
OF
RAIL


Legend
All trees that are not category 2
Dead trees with hollows
Dead trees without hollows
Young or insignificant trees
Deteriorating health / condition with little prospect of recovery
Deteriorating structural conditions
No future potential or poor condition
Proposed for retention
Proposed for removal
Not To Scale
ELP
72.62
72.53
71.81
70.94
73.30
2286
2318.1



Legend

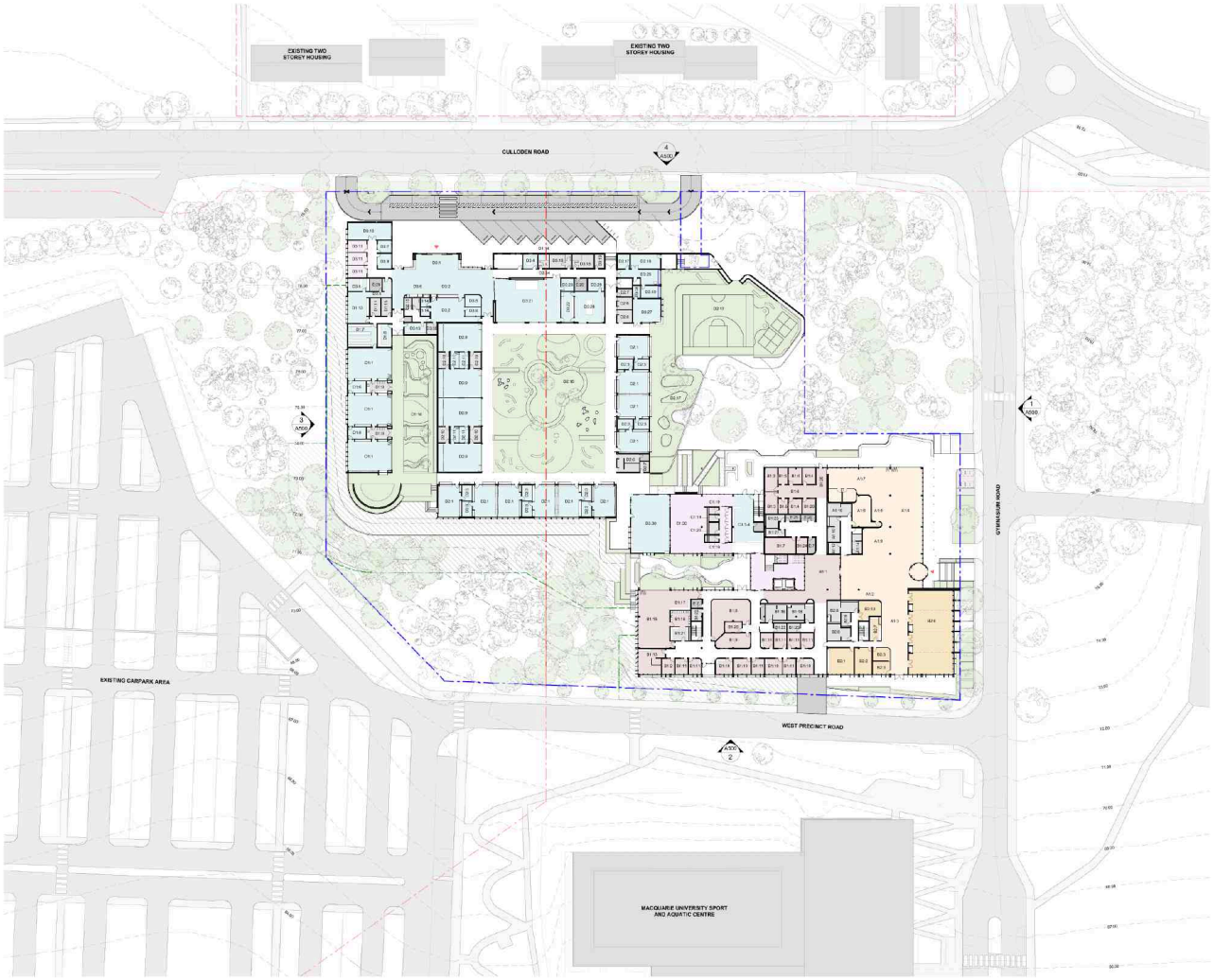
- All trees that are not category 2
- H Dead trees with hollows
- D Dead trees without hollows
- 1 Young or insignificant trees
- 3 Deteriorating health / condition with little prospect of recovery
- 4 Deteriorating structural conditions
- 8 No future potential or poor condition
- Proposed for retention
- Proposed for removal

Appendix C - Site Photographs

Figure 9 Map ‘B’

Figure 10 Map ‘I’

Appendix D - Proposed Site Plan



Issue	Description	Date
1	50% SCHEMATIC DESIGN	07.08.20
2	ISSUE FOR INFORMATION	25.09.20
3	SSDA SUBMISSION	02.10.20

OVERALL BUILDING PLAN LEGEND

- MACQUARIE UNIVERSITY LOT BOUNDARY
- PROPOSED SITE BOUNDARY
- PUBLIC
- INVITED / CONSULTATION
- PRIVATE / EDUCATION
- PRIVATE / WORKPLACE
- INFRASTRUCTURE
- PROPOSED LANDSCAPE BATTER

DRAFT

WMK Architecture
L2 364 Kent Street
Sydney NSW 2000
Telephone 02 9299 0401
Facsimile 02 9299 5402
wmkarchitecture.com
ABN 25 082 186 959

Client
ROYAL INSTITUTE FOR DEAF AND BLIND CHILDREN

Project
CENTRE OF EXCELLENCE

GYMNASIUM & CULLODEN ROAD
MACQUARIE UNIVERSITY
NSW 2109

Title
OVERALL PLAN - GROUND

Drawing No.	Issue
A101	3
Scale	**Drawing Size**
1 : 500	A1
Project No.	**Drawn By**
19181	MM

CAD Reference

Dimensions: Drawings to take precedence over scaling. Contractor to verify all dimensions on site before construction. All roof sidewalls to be repainted to the Architect immediately. This drawing and its contents remain the copyright of WMK Architecture Pty Ltd ©

ZONE BUILDING PLAN LEGEND

DRAFT

WMK Architecture

Client
ROYAL INSTITUTE FOR DEAF AND BLIND CHILDREN

Project
CENTRE OF EXCELLENCE

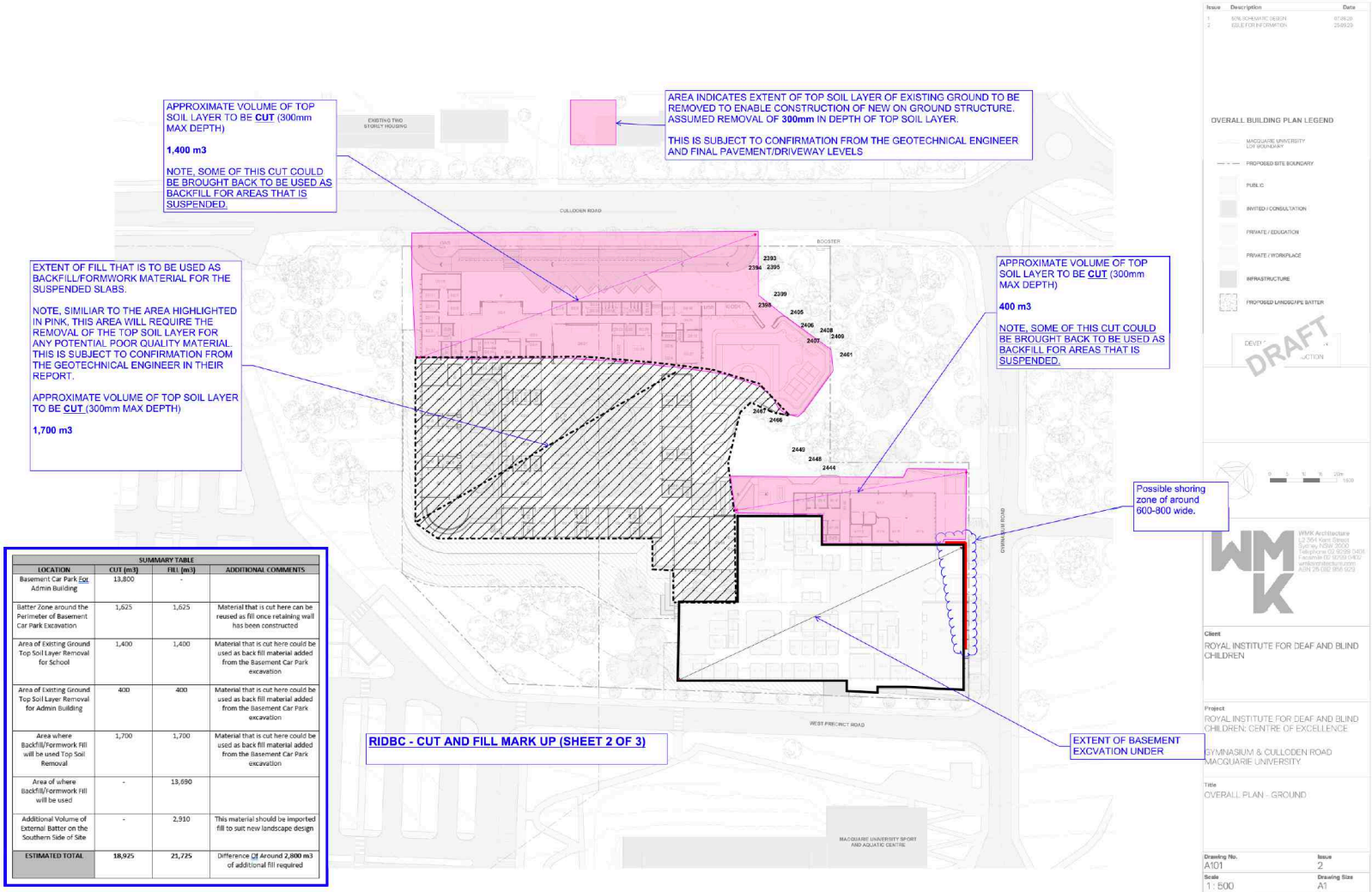
GYMNASIUM & CULLODEN ROAD
MACQUARIE UNIVERSITY
NSW 2109

Title
FLOOR PLAN - ZONE 2 - UPPER GROUND

Drawing No.	Issue
A112	4
Scale	Drawing Size
1 : 200	A1
Project No.	Drawn By
19181	SC

CAD Reference

Appendix E - Soil Cut and Fill



SUMMARY TABLE			
LOCATION	CUT (m3)	FILL (m3)	ADDITIONAL COMMENTS
Basement Car Park For Admin Building	13,800	-	
Batter Zone around the Perimeter of Basement Car Park Excavation	1,625	1,625	Material that is cut here can be reused as fill once retaining wall has been constructed
Area of Existing Ground Top Soil Layer Removal for School	1,400	1,400	Material that is cut here could be used as back fill material added from the Basement Car Park excavation
Area of Existing Ground Top Soil Layer Removal for Admin Building	400	400	Material that is cut here could be used as back fill material added from the Basement Car Park excavation
Area where Backfill/Formwork Fill will be used Top Soil Removal	1,700	1,700	Material that is cut here could be used as back fill material added from the Basement Car Park excavation
Area of where Backfill/Formwork Fill will be used	-	13,690	
Additional Volume of External Batter on the Southern Side of Site	-	2,910	This material should be imported fill to suit new landscape design
ESTIMATED TOTAL	18,925	21,725	Difference Of Around 2,800 m3 of additional fill required

Appendix F - Tree Protection Plan

AUSTRALIS
Tree Management

Tree Protection Plan

AS 4970-2009 Protection of trees on development sites

Site Address:

RIDBC Centre for Excellence

Client:

Royal Institute for Deaf and Blind Children

Date:

2 October 2020

Reference:

20211679.1

Prepared By:

Meredith Gibbs

PO Box 3453,
DURAL NSW 2158
www.australistrees.com.au

Tree no.	Species	TPZ	Proposed Status
2212	Lophostemon confertus (Queensland Brush Box)	2.4m	Retain
2215	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2216	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2217	Eucalyptus pilularis (Blackbutt)	6.0m	Retain (further investigations)
2218	Lophostemon confertus (Queensland Brush Box)	2.4m	Retain
2219	Eucalyptus microcorys (Tallowwood)	7.2m	Retain
2220	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2221	Eucalyptus microcorys (Tallowwood)	7.2m	Retain
2222	Eucalyptus microcorys (Tallowwood)	3.6m	Retain
2223	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2224	Eucalyptus microcorys (Tallowwood)	7.8m	Retain
2225	Eucalyptus microcorys (Tallowwood)	3.0m	Retain
2226	Eucalyptus microcorys (Tallowwood)	3.0m	Retain
2227	Eucalyptus microcorys (Tallowwood)	3.6m	Retain
2228	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2229	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2230	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2231	Eucalyptus microcorys (Tallowwood)	2.4m	Retain
2232	Dead Tree	-	Retain
2233	Dead Tree	-	Retain
2234	Eucalyptus sp (Gum Tree)	2.0m	Retain
2235	Corymbia maculata (Spotted Gum)	6.0m	Remove
2236	Corymbia maculata (Spotted Gum)	6.0m	Remove
2237	Corymbia maculata (Spotted Gum)	4.8m	Remove
2237.1	Corymbia maculata (Spotted Gum)	2.0m	Remove
2238	Corymbia maculata (Spotted Gum)	7.2m	Remove
2238.1	Corymbia maculata (Spotted Gum)	6.0m	Remove
2239	Olea europaea var. communis (European Olive)	3.5m	Remove
2239.1	Olea europaea var. communis (European Olive)	3.6m	Remove
2239.2	Olea europaea var. communis (European Olive)	2.2m	Remove
2239.3	Olea europaea var. communis (European Olive)	3.7m	Remove
2239.4	Camellia reticulata (Reticulata Camellia)	2.4m	Remove
2240	Eucalyptus saligna (Sydney Blue Gum)	9.6m	Remove (relocate)
2241	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Remove
2242	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain (further investigations)
2243	Lophostemon confertus (Queensland Brush Box)	3.4m	Remove
2244	Lophostemon confertus (Queensland Brush Box)	6.0m	Remove
2245	Eucalyptus saligna (Sydney Blue Gum)	8.4m	Remove
2246	Eucalyptus microcorys (Tallowwood)	2.4m	Remove
2247	Eucalyptus microcorys (Tallowwood)	7.2m	Retain
2248	Eucalyptus sp (Gum Tree)	2.0m	Retain
2249	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2250	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2251	Dead Tree	-	Retain
2252	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2253	Dead Tree	-	Retain
2254	Eucalyptus microcorys (Tallowwood)	5.4m	Retain
2255	Eucalyptus microcorys (Tallowwood)	6.6m	Retain
2256	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2257	Eucalyptus microcorys (Tallowwood)	3.0m	Retain
2258	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2259	Eucalyptus microcorys (Tallowwood)	2.0m	Retain
2260	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2261	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2262	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2263	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2264	Eucalyptus microcorys (Tallowwood)	3.6m	Retain
2265	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2266	Eucalyptus microcorys (Tallowwood)	7.8m	Retain
2267	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2268	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2269	Eucalyptus microcorys (Tallowwood)	7.2m	Retain
2270	Eucalyptus microcorys (Tallowwood)	7.2m	Retain
2271	Eucalyptus microcorys (Tallowwood)	3.0m	Retain
2272	Dead Tree	-	Retain (further investigations)
2273	Eucalyptus saligna (Sydney Blue Gum)	5.4m	Retain
2274	Dead Tree	-	Retain (further investigations)
2275	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain
2276	Dead Tree	-	Retain
2276.1	Lophostemon confertus (Queensland Brush Box)	3.6m	Retain
2277	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain
2278	Eucalyptus saligna (Sydney Blue Gum)	8.4m	Retain

Tree no.	Species	TPZ	Proposed Status
2279	Eucalyptus saligna (Sydney Blue Gum)	5.4m	Remove
2280	Eucalyptus sp (Gum Tree)	7.2m	Remove
2281	Lophostemon confertus (Queensland Brush Box)	4.8m	Remove
2282	Corymbia maculata (Spotted Gum)	6.0m	Remove
2283	Corymbia maculata (Spotted Gum)	6.0m	Remove
2284	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2285	Eucalyptus microcorys (Tallowwood)	4.8m	Remove
2286	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2287	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2288	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain (further investigations)
2289	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2290	Eucalyptus saligna (Sydney Blue Gum)	3.0m	Retain
2291	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2292	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2293	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2294	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2295	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2296	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2297	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Remove (relocate)
2298	Corymbia maculata (Spotted Gum)	4.8m	Remove
2299	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2300	Dead Tree		Remove
2301	Eucalyptus microcorys (Tallowwood)	5.4m	Remove
2302	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2303	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2304	Eucalyptus microcorys (Tallowwood)	7.8m	Remove
2305	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2306	Eucalyptus microcorys (Tallowwood)	2.4m	Remove
2307	Eucalyptus microcorys (Tallowwood)	2.4m	Remove
2308	Eucalyptus microcorys (Tallowwood)	2.4m	Remove
2309	Eucalyptus botryoides (Bangalay)	6.0m	Remove
2310	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2311	Corymbia maculata (Spotted Gum)	4.8m	Remove
2312	Corymbia maculata (Spotted Gum)	3.6m	Remove
2313	Eucalyptus saligna (Sydney Blue Gum)	7.8m	Remove
2314	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Remove
2315	Corymbia maculata (Spotted Gum)	4.8m	Remove
2316	Corymbia maculata (Spotted Gum)	4.8m	Remove
2317	Eucalyptus microcorys (Tallowwood)	8.4m	Remove
2318	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2318.1	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2319	Eucalyptus microcorys (Tallowwood)	3.6m	Remove
2320	Eucalyptus microcorys (Tallowwood)	5.4m	Remove
2321	Eucalyptus microcorys (Tallowwood)	3.6m	Remove
2322	Eucalyptus botryoides (Bangalay)	6.0m	Remove
2323	Eucalyptus saligna (Sydney Blue Gum)	2.4m	Remove
2324	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Remove
2325	Eucalyptus saligna (Sydney Blue Gum)	3.0m	Remove
2326	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Remove
2327	Eucalyptus saligna (Sydney Blue Gum)	8.4m	Remove
2328	Eucalyptus botryoides (Bangalay)	5.4m	Remove
2328.1	Eucalyptus sp (Gum Tree)	2.0m	Retain
2329	Dead Tree	-	Retain
2330	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2331	Eucalyptus botryoides (Bangalay)	4.8m	Retain
2332	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2333	Eucalyptus botryoides (Bangalay)	4.8m	Remove
2334	Eucalyptus botryoides (Bangalay)	7.8m	Remove
2335	Dead Tree	-	Retain
2336	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2337	Eucalyptus microcorys (Tallowwood)	3.6m	Retain
2338	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2339	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2340	Eucalyptus saligna (Sydney Blue Gum)	6.6m	Retain
2341	Eucalyptus saligna (Sydney Blue Gum)	3.6m	Retain
2342	Eucalyptus saligna (Sydney Blue Gum)	8.4m	Retain
2343	Eucalyptus saligna (Sydney Blue Gum)	2.0m	Retain
2344	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain
2345	Eucalyptus saligna (Sydney Blue Gum)	6.6m	Retain
2346	Eucalyptus botryoides (Bangalay)	4.8m	Retain
2347	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2348	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain

Tree no.	Species	TPZ	Proposed Status
2349	Eucalyptus microcorys (Tallowwood)	3.0m	Retain
2350	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2351	Eucalyptus microcorys (Tallowwood)	7.2m	Retain
2352	Eucalyptus microcorys (Tallowwood)	7.8m	Retain
2353	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Remove
2354	Eucalyptus saligna (Sydney Blue Gum)	14.4m	Remove
2355	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Remove
2356	Dead Tree	-	Retain
2357	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain
2358	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2359	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2360	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain
2361	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2362	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2363	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2364	Eucalyptus sp (Gum Tree)	4.2m	Remove
2365	Eucalyptus botryoides (Bangalay)	9.6m	Retain
2366	Eucalyptus microcorys (Tallowwood)	3.6m	Retain
2367	Eucalyptus botryoides (Bangalay)	7.2m	Remove
2368	Olea europaea subsp. cuspidata (African	3.6m	Remove
2369	Harpephyllum caffrum (Kaffir Plum)	2.0m	Remove
2370	Ligustrum lucidium (Large Leaf Privet)	4.8m	Remove
2371	Cinnamomum camphora (Camphor Laurel)	14.4m	Remove
2372	Eucalyptus microcorys (Tallowwood)	9.6m	Remove
2373	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2374	Eucalyptus microcorys (Tallowwood)	9.6m	Remove
2375	Eucalyptus microcorys (Tallowwood)	5.4m	Remove
2376	Eucalyptus microcorys (Tallowwood)	6.6m	Remove
2377	Eucalyptus microcorys (Tallowwood)	7.8m	Remove
2378	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Remove
2379	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2380	Eucalyptus microcorys (Tallowwood)	7.8m	Remove
2381	Corymbia citriodora (Lemon-scented Gum)	4.8m	Remove
2382	Corymbia citriodora (Lemon-scented Gum)	6.0m	Remove
2383	Corymbia citriodora (Lemon-scented Gum)	3.0m	Remove
2384	Corymbia citriodora (Lemon-scented Gum)	4.8m	Remove
2385	Eucalyptus globulus subsp bicostata	4.8m	Remove
2386	Corymbia citriodora (Lemon-scented Gum)	5.4m	Remove
2387	Corymbia citriodora (Lemon-scented Gum)	9.4m	Remove
2388	Corymbia citriodora (Lemon-scented Gum)	2.0m	Retain
2389	Corymbia citriodora (Lemon-scented Gum)	4.8m	Retain
2390	Corymbia citriodora (Lemon-scented Gum)	3.6m	Remove
2391	Corymbia citriodora (Lemon-scented Gum)	7.2m	Remove
2392	Eucalyptus saligna (Sydney Blue Gum)	6.6m	Remove
2393	Eucalyptus scoparia (Wallangara White Gum)	5.4m	Retain
2394	Corymbia citriodora (Lemon-scented Gum)	7.7m	Remove
2395	Corymbia citriodora (Lemon-scented Gum)	2.0m	Retain
2396	Corymbia citriodora (Lemon-scented Gum)	3.0m	Retain
2397	Eucalyptus saligna (Sydney Blue Gum)	8.4m	Retain
2398	Corymbia citriodora (Lemon-scented Gum)	2.0m	Retain
2399	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2400	Eucalyptus tereticornis (Forest Red Gum)	7.2m	Retain
2401	Eucalyptus scoparia (Wallangara White Gum)	7.2m	Retain
2402	Eucalyptus saligna (Sydney Blue Gum)	6.6m	Retain
2403	Eucalyptus saligna (Sydney Blue Gum)	5.4m	Retain
2404	Corymbia citriodora (Lemon-scented Gum)	4.8m	Retain
2405	Eucalyptus microcorys (Tallowwood)	7.2m	Retain
2406	Corymbia citriodora (Lemon-scented Gum)	2.6m	Retain
2407	Eucalyptus microcorys (Tallowwood)	4.8m	Remove
2408	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2409	Eucalyptus microcorys (Tallowwood)	5.4m	Retain
2410	Eucalyptus microcorys (Tallowwood)	3.6m	Retain
2411	Eucalyptus microcorys (Tallowwood)	6.6m	Retain
2412	Eucalyptus leucoxylon (Yellow Gum)	5.4m	Retain
2413	Corymbia citriodora (Lemon-scented Gum)	2.0m	Retain
2414	Eucalyptus parramattensis (Parramatta Red	3.6m	Retain
2415	Eucalyptus microcorys (Tallowwood)	5.4m	Retain
2416	Dead Tree	-	Retain
2417	Corymbia citriodora (Lemon-scented Gum)	6.0m	Retain
2418	Corymbia citriodora (Lemon-scented Gum)	4.8m	Retain
2419	Eucalyptus botryoides (Bangalay)	6.6m	Retain
2420	Eucalyptus parramattensis (Parramatta Red	2.4m	Retain

Tree no.	Species	TPZ	Proposed Status
2421	Eucalyptus botryoides (Bangalay)	6.0m	Retain
2422	Corymbia citriodora (Lemon-scented Gum)	3.6m	Retain
2423	Corymbia citriodora (Lemon-scented Gum)	3.6m	Retain
2424	Corymbia citriodora (Lemon-scented Gum)	7.2m	Retain
2425	Eucalyptus saligna (Sydney Blue Gum)	8.4m	Retain
2426	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2427	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2428	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2429	Eucalyptus saligna (Sydney Blue Gum)	5.4m	Retain
2430	Eucalyptus saligna (Sydney Blue Gum)	8.4m	Retain (further
2431	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain (further
2432	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2433	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2434	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2435	Dead Tree	-	Retain
2436	Eucalyptus microcorys (Tallowwood)	5.4m	Remove
2437	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2438	Dead Tree	-	Remove (relocate)
2439	Eucalyptus microcorys (Tallowwood)	6.6m	Remove
2440	Callistemon viminalis (Weeping Bottlebrush)	8.4m	Remove
2441	Callistemon viminalis (Weeping Bottlebrush)	8.5m	Remove
2442	Callistemon viminalis (Weeping Bottlebrush)	6.0m	Remove
2443	Eucalyptus microcorys (Tallowwood)	7.8m	Remove
2444	Eucalyptus microcorys (Tallowwood)	2.4m	Retain
2445	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2446	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2447	Eucalyptus microcorys (Tallowwood)	6.6m	Retain
2448	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2449	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2450	Eucalyptus microcorys (Tallowwood)	4.8m	Retain
2451	Eucalyptus microcorys (Tallowwood)	2.4m	Retain
2452	Eucalyptus microcorys (Tallowwood)	5.4m	Retain
2453	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain (further
2454	Eucalyptus microcorys (Tallowwood)	5.4m	Retain
2455	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2456	Eucalyptus microcorys (Tallowwood)	3.0m	Retain
2457	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2458	Eucalyptus microcorys (Tallowwood)	3.6m	Retain
2459	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2460	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2461	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2462	Eucalyptus saligna (Sydney Blue Gum)	4.8m	Retain (further
2463	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2464	Eucalyptus saligna (Sydney Blue Gum)	7.8m	Retain
2465	Eucalyptus saligna (Sydney Blue Gum)	3.6m	Retain (further
2466	Eucalyptus saligna (Sydney Blue Gum)	7.2m	Retain
2467	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2468	Corymbia citriodora (Lemon-scented Gum)	5.4m	Remove
2469	Corymbia citriodora (Lemon-scented Gum)	2.0m	Remove
2470	Corymbia citriodora (Lemon-scented Gum)	4.8m	Remove
2471	Eucalyptus saligna (Sydney Blue Gum)	5.4m	Remove
2472	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2473	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2474	Eucalyptus microcorys (Tallowwood)	2.4m	Remove
2475	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2476	Eucalyptus microcorys (Tallowwood)	8.4m	Remove
2477	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2478	Eucalyptus microcorys (Tallowwood)	5.4m	Remove
2479	Eucalyptus microcorys (Tallowwood)	4.8m	Remove
2480	Eucalyptus microcorys (Tallowwood)	6.0m	Retain
2481	Eucalyptus microcorys (Tallowwood)	6.6m	Remove
2482	Eucalyptus microcorys (Tallowwood)	6.0m	Remove
2483	Eucalyptus microcorys (Tallowwood)	3.6m	Remove
2484	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2485	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2486	Eucalyptus microcorys (Tallowwood)	7.2m	Remove
2487	Eucalyptus saligna (Sydney Blue Gum)	6.0m	Retain
2488	Dead Tree	-	Remove (relocate)
2489	Ficus microcarpa var. hillii (Hills Weeping Fig)	4.8m	Remove
2490	Ficus microcarpa var. hillii (Hills Weeping Fig)	5.4m	Remove
2491	Ficus microcarpa var. hillii (Hills Weeping Fig)	2.9m	Retain

Title: **Tree List** *AS 4970-2009 Protection of trees on development sites*	Client: **Royal Institute for Deaf and Blind Children**		
Reference: **20211679.1**	**Culloden Road, Macquarie Park**	Prepared By: **Meredith Gibbs**	Page: **2 / 4**
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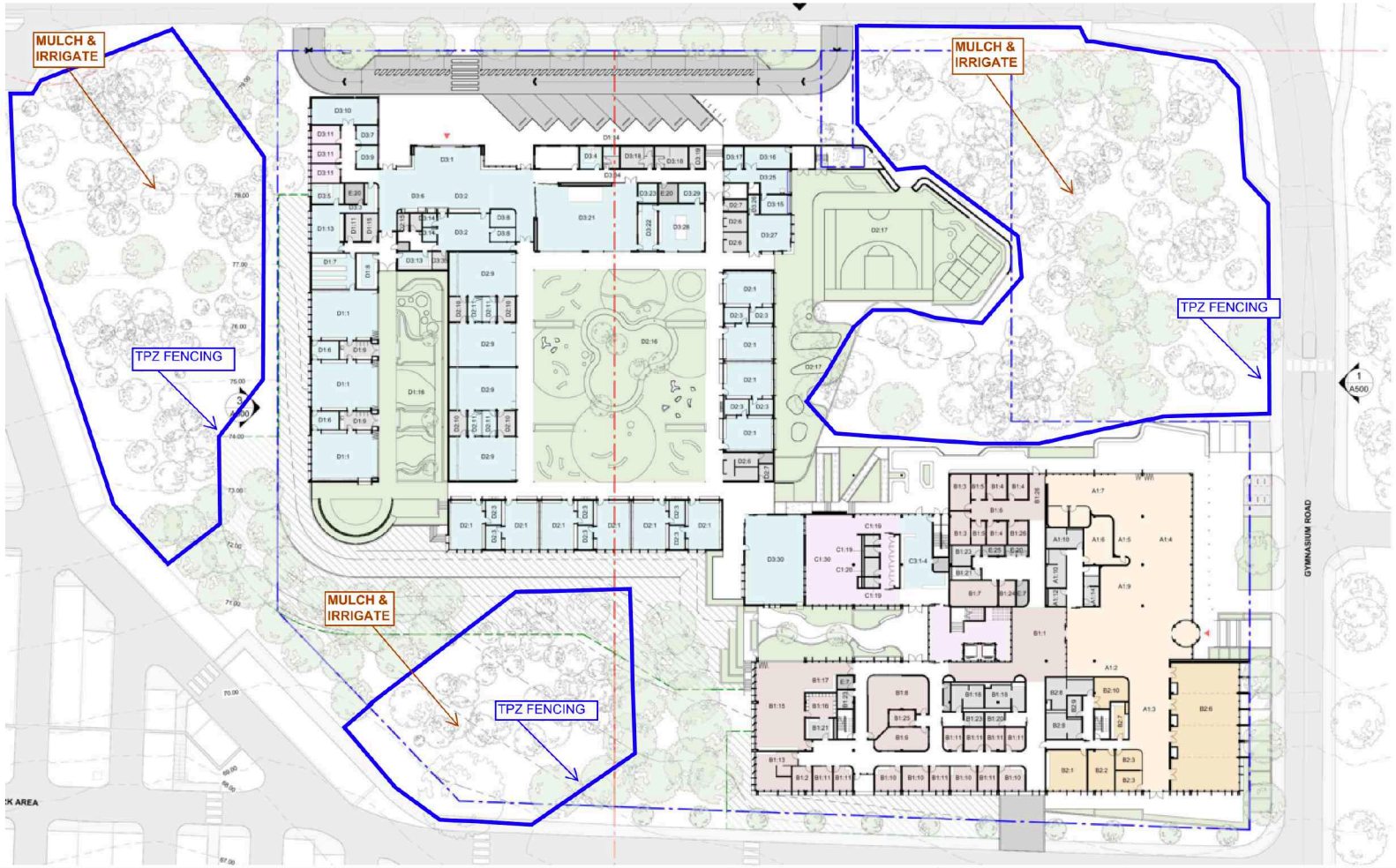


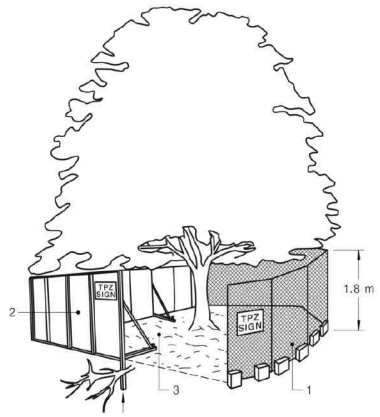
Title: **Tree Protection Plan** *AS 4970-2009 Protection of trees on development sites*	Client: **Royal Institute for Deaf and Blind Children**	Scale 0 2 10 11 meters	AUSTRALIS Tree Management PO Box 3453, DURAL NSW 2158 Mobile: 0407 103 895 www.australistrees.com.au
Reference: **20211679.1**	**Culloden Road, Macquarie Park**	Prepared By: **Meredith Gibbs**	Page: **3 / 4**
Date: **2 October 2020**			

Project Arborist Monitoring	
1	All tree related matters must be discussed with the project arborist
2	The builder / site manager is responsible to inform the project arborist of any issues during works
3	The project arborist MUST supervise all work within any Tree Protection Zone
4	The project arborist must maintain a monthly log including site visits, notes and photographs
5	The project arborist must provide feedback to the owner / builder / notes and site manager / council.
6	All tree related matters must be discussed with the project arborist
7	Any pruning required must be in accordance with AS 4373-2007 Pruning of Amenity Trees, Standards Australia and completed by a level 3 qualified arborist or higher.Climbing spikes MUST NOT be used.

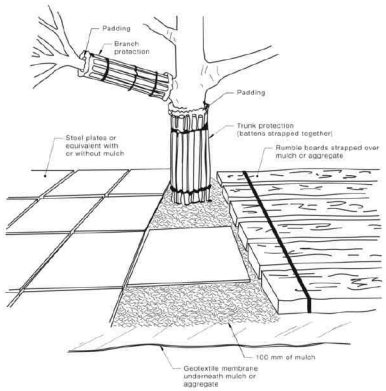
Project Hold Points		
Hold Point	Task	Timing
1	Tree Protection Plan & Specifications must be onsite prior to works	Prior to demolition of structures
2	Project arborist must oversee tree retention	
3	Project arborist must inspect Tree Protection Fencing including adequate signage	
4	The builder / site manager is responsible to inform the project arborist of any issues during works	As required
5	Project arborist must inspect trees monthly	During all construction works
6	Final Tree Inspection	Post construction

Activities Excluded From Tree Protection Zones	
1	No soil level changes
2	Machine excavation including trenching
3	Excavation for silt fencing
4	Cultivation
5	Preparation of chemicals
6	Parking of vehicles and machinery
7	Refuelling
8	Dumping of waste
9	Wash down and cleaning of equipment
10	Placement of fill
11	Lighting of fires
12	Temporary or permanent installation of utilities
13	Physical damage to the tree
14	Bolt cutters or wire cutters must not be used for root pruning
Activities Permissable Within Tree Protection Zones	
1	Any excavation work within a Tree Protection Zone must be monitored by the project arborist.
2	Roots measuring over 40 in diameter within the Tree Protection Zone and outside the Structural Root Zone may be pruned at the discretion of the project arborist.
3	Root exposure must be applied with hand tools or Air Spade to prevent damage to the root system.
4	All root pruning equipment must be sharp and clean. Secateurs, loppers or pruning saws should be used and can be cleaned with methylated spirits to prevent disease and pathogen spread. No bolt cutters.
5	Any roots exposed must be wrapped or covered with hessian or cloth and kept moist to prevent drying out and sunburn until backfilling occurs.
6	Backfill must be watered in and mulched with composted leaf mulch.

Tree Protection Fencing	
1	A 1.8m chain wire fence, secured and fastened to prevent movement be installed in accordance with AS4970 -2009 and AS 4687-2007. Woody roots must not be damage during fencing TPZ fencing installation. No fence relocation is permitted without Arborist permission.
2	Signage - "Tree Protection Zone, No Entry". With project arborist contact details to be attached to the protective fencing.
3	Within the TPZ fencing up to 50mm of COMPOSTED organic mulch must be applied to help retain moisture levels, suppress weed growth and reduce tree stress. Mulch must be in accordance with AS4454-2012 Composts, soil conditioners and mulches.
4	All trees must be thoroughly watered regularly throughout the development works. This is dependent on weather conditions where more water applied during hot and or winding weather.
5	Tree protection fencing must include shade cloth attached to the fencing to reduce transport of dust, particulates and liquids from entering the TPZ.



Trunk Protection	
1	Trunk protection shall consist of hessian wrapped around the trunk.
2	Two metre lengths of timber (100 x 50mm) spaced at 100-150mm centres secured together with 2mm galvanised wire.
3	These shall be strapped around the trunk and not fixed to the tree in any way to avoid mechanical injury or damage.
Rumble Boards	
1	Ground protection If temporary access for machinery is required within the TPZ ground protection measures will be required.
2	The purpose of ground protection is to prevent root damage and soil compaction within the TPZ.
3	Measures may include a permeable membrane such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards.
4	These measures may be applied to root zones beyond the TPZ.
Foot Traffic Platforms	
1	Ground protection against foot traffic is required within the TPZ. Scaffolding with timber boards attached



Title: **Tree Protection Plan** *AS 4970-2009 Protection of trees on development sites*	Client: **Royal Institute for Deaf and Blind Children**		
Reference: **20211679.1**	: **Culloden Road, Macquarie Park**	Prepared By: **Meredith Gibbs**	Page:
Date: **2 October 2020**			

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Appendix G - Glossary

Shigo, A.L. (1986) A New Tree Biology Dictionary.
*Docktor, D (2001) City of Palo Alto, Tree Technical Manual.

Bark*	All tissue outside the vascular cambium. Bark is usually divided into inner bark active phloem and aging and dead crushed phloem.
Basal	Lower trunk area of the tree.
Branch*	Organ which supports leaves, flowers and fruit.
Branch collar*	Trunk tissue that forms around the base of a branch between the main stem and the branch wood and trunk wood to meet. Formed by compaction or expansion as the girth of the branch and trunk increase.
Canopy	The part of the crown composed of the leaves and small twigs.
Cavity	An open wound, characterized by the presence of decay and resulting in a hollow (Matheny & Clarke, 1994).
Codominant stems*	Stems or trunks of about the same size originating from the same position from the main stem.
Compaction	Compaction of soils causes roots to die due to lack of oxygen and water.
Compartmentalization*	Dynamic tree defense process involving protection features that resist the spread of pathogens.
Crown*	Portion of the tree consisting of branches and leaves and any part of the trunk from which branches arise.
Decay*	Degeneration and delignification of plant tissue, including wood, by pathogens or microorganisms.
Dieback	Dieback is the reduction in the dynamic mass of a tree as twigs and branches die and are walled off by protection boundaries.
Epicormic shoots*	Shoots produced by dormant buds within the bark or stems of a tree as a result of stress, lopping or increase light. Epicormic shoots usually have a weaker form of branch attachment.
Included bark*	Inwardly formed bark at the junction of branches or codominant stems.
Kino	A dark red to brown resin-like substance produced by the trees in the genera Eucalyptus and other related genera. Kino forms when living cells are injured and infected.
Lopping*	Random cutting of branches or stems between branch union or at internodes on young trees.
Mycorrhiza	A symbiotic, nonpathogenic, or weakly pathogenic association of fungi and non woody, absorbing roots of plants. The common belief is that the mycorrhiza help the tree with mineral absorption, especially phosphorus.
Microorganisms	An organism of microscopic size. Bacteria, the tree pathogens, may be as small as 3 microns wide by 5 microns long.
Pathogen	Any agent that causes disease.
Photosynthesis	A process where chlorophyll in plants traps the energy of the sun in a molecule of carbon dioxide and water that is called sugar.
Roots	An organ of a tree that serves to maintain mechanical support, to provide water and essential elements from the soil through absorption, and to store energy reserves.
Stem*	Organ which supports branches, leaves flowers and fruit.
Tree*	Long lived woody perennial plant greater than (or potentially greater than) 3m in height with one or relatively few stems.
Trunk*	The main stem.
Wound*	An opening that is created when the bark is cut, removed or injured.

Appendix H - TreeAZ (Barrell 2016)

TreeAZ Field Sheet

Heritage: Each tree is assessed by a visual check. If it is a designated heritage tree, then it is automatically categorized as AA, and is not subjected to any of the category ZZ, Z or A considerations.
Category ZZ (unsuitable for retention): Any remaining trees that are severely compromised and unsuitable for retention, even short term, are categorized as ZZ, i.e. Dead; irreversibly declining health; irremediable structural conditions; or, causing severe inconvenience to people or structural damage.
Category Z (low quality): Any remaining trees are systematically reviewed to decide if they fit into any of the four Z subcategory groups listed in the table below.
Category A (moderate quality): Any remaining trees are automatically category A, with the possibility of being promoted to category AA.
Category AA (high quality): If a category A tree is already Large, or has the potential to become so with limited intervention, it can be promoted to category AA, at the discretion of the assessor.

Category Z: Low quality trees not worthy of being material constraint

Z	Local policy exemptions: Trees that are unsuitable for legal protection for local policy reasons including size, proximity and species	
	1	Size: Young or insignificant small trees, e.g. below the local size threshold for legal protection, etc
	2	Proximity, hedge or species: Exempt from legal protection because of proximity to structures, a maintained hedge or unsuitable species, e.g. scheduled noxious weed, out of character in a setting of acknowledged importance, etc
	Deteriorating health/condition: Trees that are likely to be removed within 10 years because of deteriorating health and/or structural condition	
	3	Health: Deteriorating health with little realistic prospect of recovery
	4	Crown instability: Deteriorating structural conditions where an increasing risk of failure can be temporarily addressed by reasonable intervention, e.g. storm damage, cavities, decay, included bark, wounds, excessive imbalance, etc
	5	Root instability: Deteriorating whole tree stability through poor anchorage, increased exposure to weather, etc
	Ongoing nuisance: Trees that are likely to be removed within 10 years because of unsuitable impact on people	
	6	Inconvenience: Ongoing and increasing inconvenience to residents to the extent that a locally recognised court or tribunal would be likely to authorise removal, e.g. dominance, debris, interference, etc
	7	Damage: Ongoing and increasing structural damage to property to the extent that a locally recognised court or tribunal would be likely to authorise removal, e.g. worsening damage to surfacing and structures, etc
	Good management: Trees that are likely to be removed within 10 years through responsible management of the tree population	
	8	No future potential: Poor condition or location with no realistic potential for recovery or improvement, e.g. dominated by adjacent trees or buildings, poor architectural framework, etc
	9	Benefit nearby trees: Removal would benefit better adjacent trees, e.g. relieve physical interference, suppression, etc
	10	Maintenance costs: Unacceptably high maintenance costs, e.g. structural conditions requiring high levels of regular pruning, etc

NOTE: 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

Categories A and AA: Moderate and high quality trees suitable for retention for more than 10 years, and worthy of being a material constraint

A	All trees that are not categories ZZ or Z that can be retained with limited intervention	

NOTE: Category A trees that are already large, or have the potential to become so, with limited intervention, can be promoted to category AA(1), at the discretion of the assessor. Designated heritage trees are automatically category AA(2). Although all category AA and A trees are sufficiently important to be material constraints, category AA trees are at the top of the categorization hierarchy and should be given the most weight in any selection process.

AA	1	Single category A trees or small groups which, at the discretion of assessor, can be promoted to category AA because they are already large, or have the potential to become large
	2	Designated heritage tree

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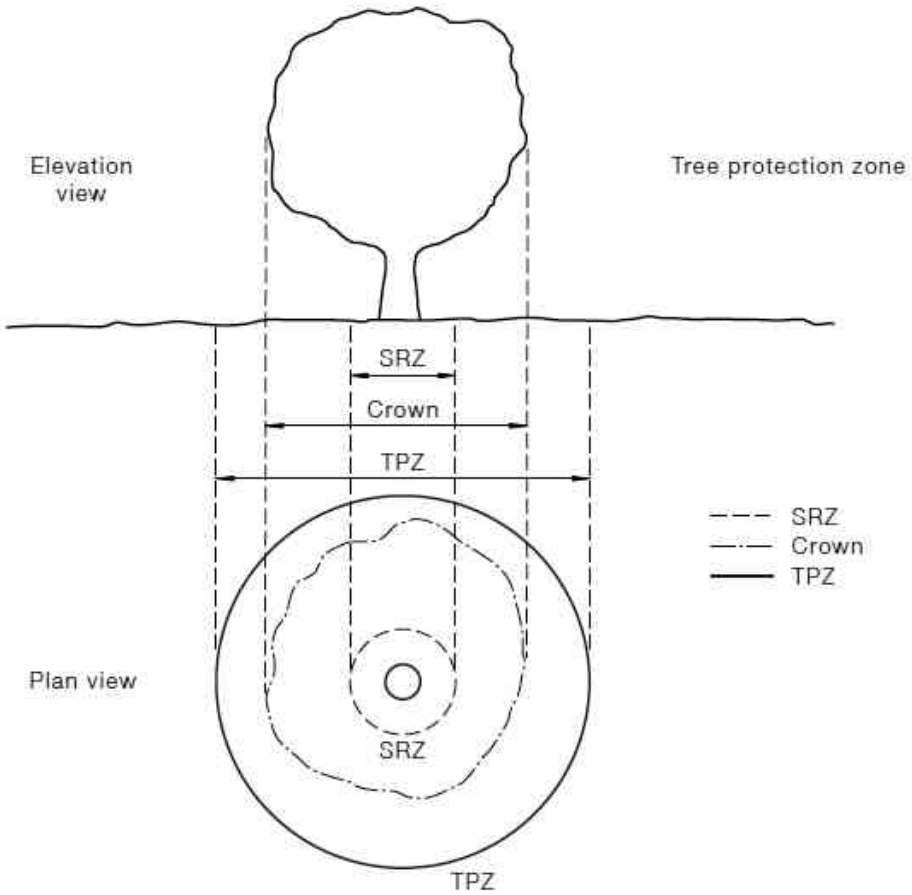
Appendix I - Tree Protection Zones AS4970-2009

Tree Protection Zone

The tree protection zone (TPZ) is the principal means of protecting trees on development sites. The TPZ is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.



Determining the TPZ

The **radius** of the TPZ is calculated for each tree by multiplying its DBH × 12.
TPZ = DBH×12
Where DBH = trunk diameter measured at 1.4 m above ground

Radius is measured from the centre of the stem at ground level.

A TPZ should not be less than 2m nor greater than 15m (except where crown protection is required). Clause 3.3 covers variations to the TPZ.

The TPZ of palms, other monocots, cycads and tree ferns should not be less than 1 m outside the crown projection.

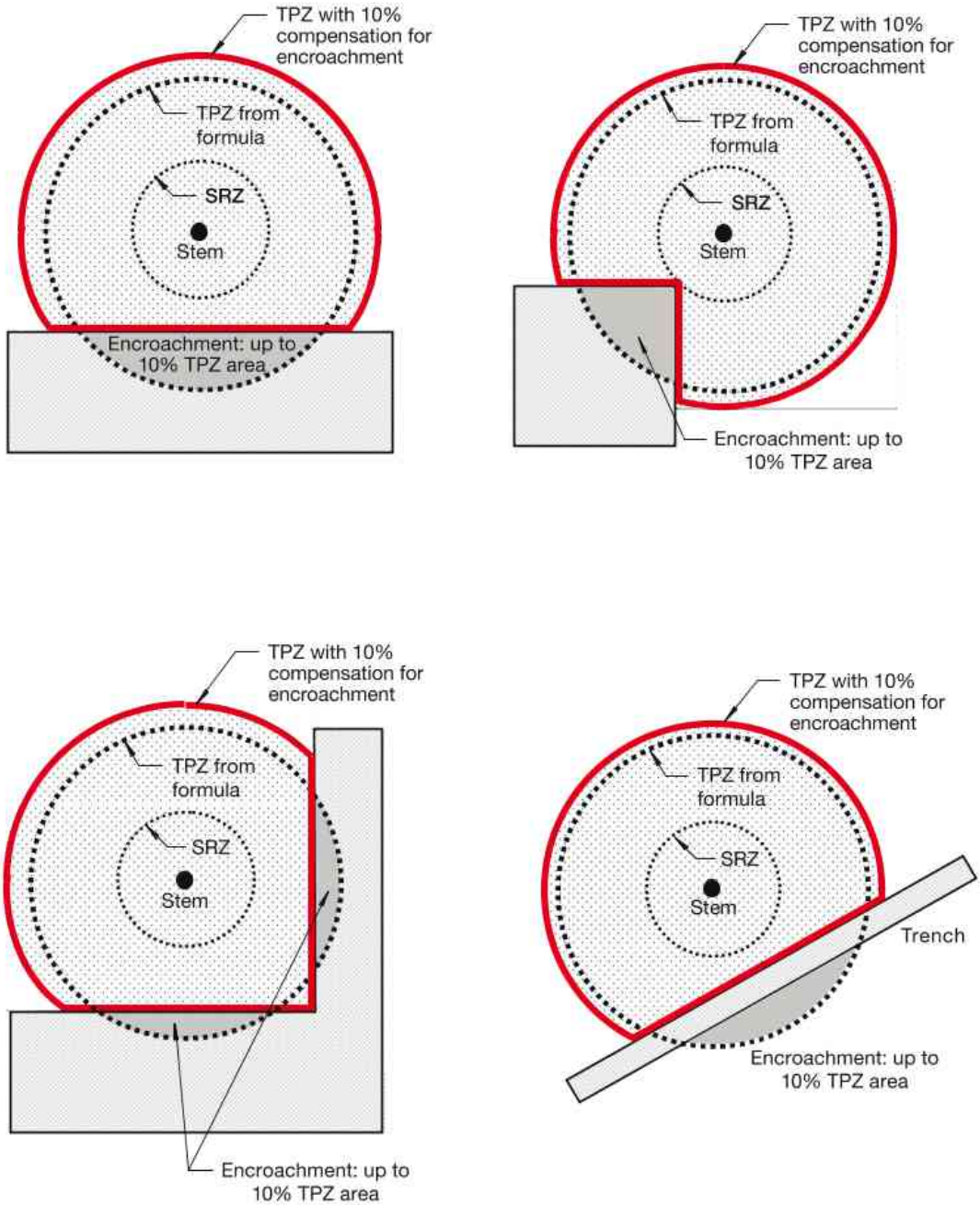
Appendix J - Tree Protection Zone Encroachments AS4970-2009

Minor Encroachments

The proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.

Major Encroachments

The proposed encroachment is greater than 10% of the TPZ or inside the SRZ, the project arborist must demonstrate that the tree(s) would remain viable. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non-destructive methods.



Appendix K - Qualifications & Experience

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ABN: 71 324 020 793

Meredith Gibbs (January 2020)

Qualifications:

1999 Advanced Certificate in Urban Horticulture
2002 Horticulture Diploma (Arboriculture) Level 5
2002 Occupational Health & Safety course
2002 Risk Management course
2002 Smart Train 008397
2010 Collecting Catchment Data
2011 Quantified Tree Risk Assessment
2014 Quantified Tree Risk Assessment
2015 Horticulture Diploma (Arboriculture), Level 5
2018 White Card Number 2234996

Practical experience:

1996 - 1998 Nursery Hand - Horticulturist
1988 - 2001 Garden Maintenance - Horticulturist
1997 - 2004 Silver Springs Nursery (Owner/Operator)
2000 - Australis Tree Management (Owner/Operator)

Memberships and affiliations:

Arboriculture Australia
Australian Institute of Horticulture
Australian Plant Society of NSW
Burrendong Botanic Garden & Arboretum
International Society of Arboriculture
Quantified Tree Risk Assessment Registered User
Society of Municipal Arborists
Women in Arboriculture

Insurance:

Professional Indemnity Insurance
Liberty International Underwriters
$5,000,000.00
Policy No. HC-ME-SPC-01-104260
Public Liability Insurance
Liberty International Underwriters
$20,000,000.00
Policy No. 463763

Pro Bono Work:

Middle Dural Public School

Continuing Professional Development:

NAAA Conference, Mature Trees, 2001
Claus Mattheck Seminar 2001
ISAAC Conference - Parramatta 2004
AILA Tree Management Forum 2005
Jeremy Barrell Tree AZ & Report Writing Workshop 2006
A Practitioner's Guide to Visual Tree Assessment – Mike Ellison 2007
Quantified Tree Risk Assessment Workshop – Mike Ellison 2007
ISAAC Conference - Brisbane 2008
ISAAC Conference Workshop Dr. David Lonsdale 2008
ISAAC Conference Workshop Dr. Phillip Gibbons 2008
ISAAC Conference - Newcastle 2009
ISAAC Conference - Adelaide 2010
ISA International Conference Parramatta 2011
ISA International Conference Workshop Dr. Ken James 2011
Arboriculture Australia Annual Conference - Sunshine Coast 2014
Arboriculture Australia Annual Conference - Adelaide 2015
Arboriculture Australia Annual Conference - Canberra 2017
Jeremy Barrell Arboriculture Australia Workshop 2017
Arboriculture Australia Annual Conference - Hobart 2018
Arboriculture Australia Annual Conference - Alice Springs 2019

Past Projects

Pennant Street Castle Hill (Castle Towers) 2006
Fairway Drive, Kellyville 2012
Summit Care, Baulkham Hills 2013
105-115 Portman Street, Zetland 2016
114 Tallawong Road, Rouse Hill 2016
2 Lexington Dr Bella Vista 2016
The Hermitage - Gledswood Hills 2010-2019
105 Cudgegong Rd Rouse Hill Development 2018
33 Greenwich Road, Greenwich Redevelopment 2017-2019
Gosford Park Redevelopment 2019
Blacktown Workers Sports Club Redevelopment 2016-2019
Gregory Hills Industrial Estate 2019

Appendix L - References

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