

Arboricultural Assessment and Report

North Richmond Masterplan

29 July 2021
Tree Logic Ref. 011189

Prepared for MGS Architects
Prepared by Manori Senanayake – Consultant,
Tree Logic Pty. Ltd.

Contents

1	SUMMARY	3
2	BACKGROUND	4
2.1	Study area	4
2.2	Study area breakdown	5
2.3	Method	7
2.4	Limitations	7
2.5	Permit requirements	7
2.5.1	Clause 52.17 – Native vegetation	7
2.5.2	City of Yarra Significant Tree Local Law	7
3	TREE OBSERVATIONS (WITHIN SITES)	8
3.1	Tree assessment summary tables	8
3.2	Trees subject to Local Law	8
3.3	Arboricultural ratings	9
3.4	Early-mature to maturing trees	9
3.4.1	ULE of older trees	9
3.4.2	Characteristic species among early-mature to maturing trees	9
3.5	Specific tree/species observations	10
3.5.1	Southern Blue Gum (Eucalyptus globulus) fungal decay	10
3.5.2	Poplars (Populus sp.)	11
3.5.3	Trees within demolition areas (Elizabeth Street)	11
4	TREE OBSERVATIONS (STREET TREES)	12
4.1	Tree assessment summary tables	12
4.2	Highett Street	12
4.3	Lennox Street	12
4.4	Church Street	13
4.5	Elizabeth Street	13
5	RECOMMENDATIONS AND CONCLUSION	14
5.1	General tree retention considerations	14
5.1.1	Retention of groups of trees	14
5.1.2	Isolated higher-rated trees and street trees	14
5.2	Specific tree retention considerations	15
5.2.1	Southern Blue Gum (Eucalyptus globulus)	15
5.2.2	Trees within demolition areas	15
5.2.3	Trees in narrow spaces and infrastructure conflict	15
5.3	Tree work recommendations	16

APPENDIX 1: TREE ASSESSMENT TABLE	I
APPENDIX 2: TREE LOCATION PLAN.....	II
APPENDIX 3: TREE IMAGES	III
Elizabeth Street	iii
Towers – Northwest.....	vi
Towers – North-Central	ix
Towers – North-East.....	xii
Towers – Multistorey Carparks.....	xv
Community Health Centre	xx
Towers – South (Near School)	xxiii
Towers – South.....	xxvi
APPENDIX 4: ARBORICULTURAL DESCRIPTORS (FEBRUARY 2019)	XXXIII
APPENDIX 5: TREE PROTECTION ZONES	XXXIX



1 Summary

Tree Logic was engaged to undertake a visual assessment of trees within the North Richmond precinct to inform future masterplanning considerations. A total of 518 trees and four (4) groups of small trees were recorded between 15-18 June 2021 by Tree Logic assessors. Of these, 433 trees are within the public housing areas while 85 trees are City of Yarra-managed street trees.

Within the site, most trees assessed were native evergreen species. Nearly one-third of trees within the site were represented in the top four most common species (*Corymbia maculata* – Spotted Gum, *Eucalyptus saligna* – Sydney Blue Gum, *Eucalyptus sideroxylon* – Red Ironbark, *Eucalyptus globulus* – Southern Blue Gum). Two-thirds of the population consisted of early-mature or maturing trees, largely reflective of original plantings dating to the inception of the public housing estate.

Each tree feature was attributed an arboricultural rating which reflects their retention value. Planners and designers should refer to the arboricultural ratings and useful life expectancies (ULEs) to help determine the appropriateness of retaining trees in the context of site redevelopment.

- Four (4) trees were attributed a High arboricultural rating being the most outstanding tree features in the study area. These trees are the highest priority for retention in design plans.
- 323 trees were attributed a Moderate arboricultural rating including:
 - 32 trees rated Moderate A, being prominent trees in Fair or better condition with a moderate to long useful life expectancy (ULE). These trees are highly desirable to retain and are strongly recommended for consideration in design plans.
 - 164 trees (32%) rated Moderate B, being established trees in broadly Fair condition with moderate ULE, typical of the species. These trees are worthy of retention.
 - 127 trees (25%) rated Moderate C, being either developing semi-mature trees, or displaying accumulated deficiencies that are tending towards Low arboricultural value and a shorter ULE. These trees can be considered suitable for retention but may require special management or additional space to grow into.
- 176 trees (34%) and three groups were attributed an arboricultural rating of Low, being either of small size, or displaying symptoms of decline and / or structural deficiencies. Such trees do not generally warrant being a constraint on reasonable design objectives or outcomes but may be retained if not requiring disproportionate expenditure of resources or allocated space on site.
- Seven (7) trees and one group were attributed an arboricultural rating of Very Low, being dead, nearly dead, or highly invasive, and should be removed or habitat pruned as appropriate.

The report also discusses specific tree management considerations, notably the prominence of fungal decay in many Southern Blue Gum trees, trees within demolition areas, the viability of Poplar species, and other localised tree retention considerations.

A total of 283 trees within the estates (55% of total) trigger permit requirements for removal under the City of Yarra Local Law. All trees assessed are understood to be exempt from permit and offset requirements under Clause 52.17 of the Victorian Planning Provisions.

Refer to Appendix 1 for a table of tree assessment data, Appendix 2 for tree location plans, Appendix 3 for tree images, Appendix 4 for descriptions of arboricultural rating and other descriptors used in this assessment, and Appendix 5 for details on applying and managing the TPZ.

2 Background

2.1 Study area

The nominated study area covers the North Richmond public housing estate managed by Homes Victoria, bounded by Victoria Street to the north, Lennox Street to the west, Church Street, Belgium Avenue and Vere Street to the east, and Highett Street to the south.

Refer to **Error! Reference source not found.** for an overview of the study area, noting the Elizabeth Street vacant site is not included in this report. Trees within North Richmond Primary School will be

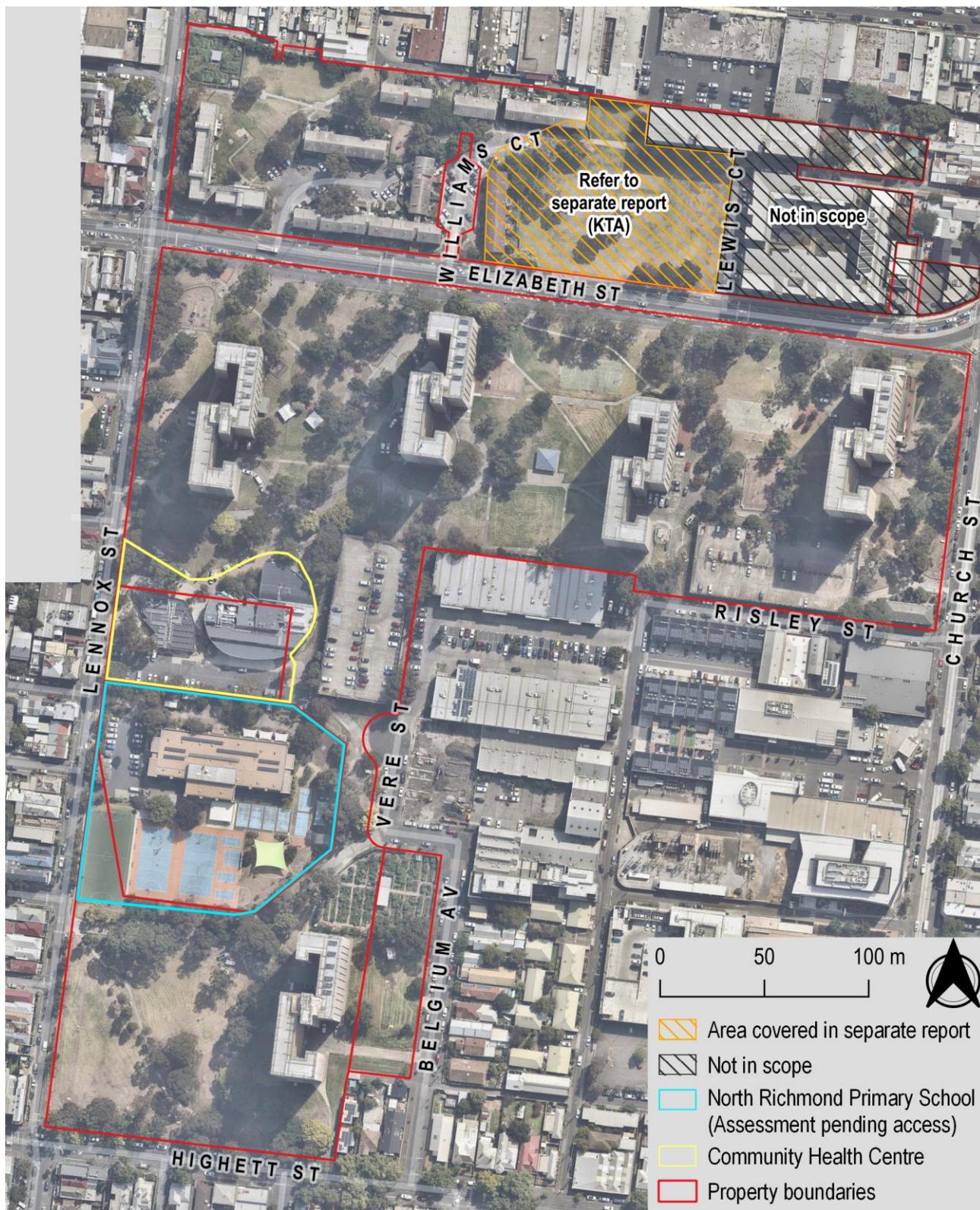


Figure 1: Overview of North Richmond estate. Study area within red line excluding hashed areas. Aerial imagery – Nearmap 2021-03-11

included pending access.

2.2 Study area breakdown

The above study area was broadly broken down into several areas:

- Elizabeth Street flats – mixture of grassed open space and narrower sites near parking areas; north of Elizabeth Street; including section to west currently fenced off for demolition

- Towers (north side) – primarily grassed open space associated with amenity (footpaths, playgrounds, etc.)
- Towers (multistorey carparks) – trees adjacent to multistorey carparks towards the middle of the site; generally in narrow planting spaces or with tighter spacing
- North Richmond Community Health Centre (refer to Figure 1) – mixture of planting sites; fenced off garden space to west, mostly narrower spaces in carpark, paved surfaces within health centre grounds
- North Richmond Primary School (not currently included in assessment; pending access)
- Towers (south side) – primarily grassed open space associated with amenity (footpaths, playgrounds, etc.); includes trees bordering community garden along Belgium Avenue
- Towers (south side – near school) – larger trees along school boundary
- Council-managed street trees
 - Lennox Street
 - Highett Street (north side bordering estate; and south side opposite estate)
 - Church Street (west side only)
 - Elizabeth Street



2.3 Method

The site was inspected on 15-18 and 26 June 2021. Tree features were digitized using a GPS-enabled tablet, with locations based on a 2011 feature survey (Reeds Consulting Ref 21900 rev. A, dated 2011-11-21), and Nearmap aerial imagery for trees not shown in the supplied survey.

Trees were assessed from the ground with observations made of their growing environment. The trees were not climbed and no inspection of below-ground or internal tree parts was undertaken.

Each of the assessed trees was attributed an 'Arboricultural Rating'. The arboricultural rating represents a combination of objective assessment criteria. This rating also conveys an amenity value relating to the trees' biological, functional and aesthetic characteristics within the specific environment. It should be noted that the arboricultural rating is different to the conservation/ecological values placed on trees by other professions. Whether the trees are retained or not is often not solely dependent on arboricultural considerations; therefore this is a guide to assist in decisions relating to tree management. Definitions of arboricultural ratings and other descriptors used in this assessment can be seen in Appendix 4.

The assessed trees have been allocated tree protection zones (TPZ) based on Australian Standard ® AS 4970-2009 *Protection of trees on development sites*. This method provides a tree protection zone (TPZ) and structural root zone (SRZ) that address both the stability and growing requirements of a tree. TPZ and SRZ distances are measured as a radius, from the centre of the trunk at (or near) ground level. All TPZ and SRZ measurements for retained trees are provided in Appendix 1. Refer to Appendix 4 for further details in applying and calculating the protection zones.

2.4 Limitations

Health assessments of most deciduous trees were limited due to lack of open foliage and were based on presence of buds and/or dead tissue. Tree ratings may differ from in-leaf assessment.

At the time of assessment Trees 1-7 were within the fenced-off area being demolished at the corner of Lennox Street and Elizabeth Street. Tree dimensions were estimated as best possible from accessible areas; observations of growing conditions and the mid to lower trunk sections could not be made for most trees.

2.5 Permit requirements

2.5.1 *Clause 52.17 – Native vegetation*

Naturally occurring trees native to Victoria may be subject to permit and offset requirements under Clause 52.17 - Native Vegetation of the Victorian Planning Provisions if the trees were proposed to be removed. However, based on the species distribution, mixture of trees from disjoint areas in Victoria, and history of the site (being largely devoid of trees and highly developed in 1945 prior to construction of the current housing estate, refer to Figure 2), it is concluded that all trees were either planted or grown as a result of direct seeding and are therefore exempt under Clause 52.17-7.

2.5.2 *City of Yarra Significant Tree Local Law*

Under the City of Yarra Local Law Part 14 – Tree Protection, a permit is required to remove, damage, destroy or lop a significant tree. The City of Yarra website¹ defines a significant tree to include trees with a combined trunk diameter of 400mm or greater at 1.5m above ground level, or a basal diameter of 400mm or greater measured at ground level.

¹ <https://www.yarracity.vic.gov.au/services/cleaning-and-maintenance/trees/significant-trees>

3 Tree Observations (within sites)

3.1 Tree assessment summary tables

A total of 433 trees were individually assessed within the public housing sites (i.e. not street trees). For detailed information as well as information regarding the four tree groups refer to Appendix 1.

Tables 1-4 show a break down of arboricultural rating, age class, origin/type and useful life expectancy (ULE). Table 5 shows the top 10 most common species.

Table 1: Breakdown of arboricultural rating for trees within sites

Arb. Rating	Trees	% Total on site
High	4	0.9%
Mod.A	31	7.2%
Mod.B	152	35.1%
Mod.C	124	28.6%
Low	110	25.4%
Very Low	12	2.8%
Grand Total	433	100.0%

Table 2: Breakdown of age class for trees within sites

Age Class	Trees	% Total on site
Semi-mature	135	31.2%
Early-mature	182	42.0%
Maturing	116	26.8%
Grand Total	433	100.0%

Table 4: Breakdown of useful life expectancy (ULE) for trees within sites

ULE (years)	Trees	% Total on site
<1	5	1.2%
1-5	22	5.1%
6-10	71	16.4%
11-20	168	38.8%
21-40	102	23.6%
>40	65	15.0%
Grand Total	433	100.0%

Table 3: Breakdown of origin/type for trees within sites

Origin/Type	Trees	% Total on site
Australian native	201	46.4%
Victorian native	124	28.6%
Exotic deciduous	93	21.5%
Exotic evergreen	15	3.5%
Grand Total	433	100.0%

Table 5: Top 10 most common tree species within sites

Species	Trees	% Total on site
1 <i>Corymbia maculata</i>	61	14.1%
2 <i>Eucalyptus saligna</i>	24	5.5%
2 <i>Eucalyptus sideroxylon</i>	24	5.5%
3 <i>Eucalyptus globulus</i> *(see note)	23	5.3%
4 <i>Platanus xacerifolia</i>	22	5.1%
5 <i>Corymbia citriodora</i>	20	4.6%
6 <i>Ulmus glabra</i> 'Lutescens'	19	4.4%
7 <i>Eucalyptus camaldulensis</i>	18	4.2%
8 <i>Casuarina cunninghamiana</i>	16	3.7%
9 <i>Ulmus parvifolia</i>	14	3.2%
9 <i>Eucalyptus nicholii</i>	14	3.2%
10 <i>Eucalyptus melliodora</i>	11	2.5%

* NOTE: Identified to species level (*E. globulus* sensu lato) only; multiple subspecies (incl. Victorian natives) present.

3.2 Trees subject to Local Law

Table 6 shows trees within the public housing sites subject to permit requirements for removal under the City of Yarra's Significant Tree Local Law (see section 2.5.2), further broken down by arboricultural rating. The majority of trees requiring a permit are higher-rated trees (Moderate B and above), being relatively established, large trees in fair or better condition.

Table 6: Breakdown of Local Law requirements

Local Law/ Arb. Rating	Trees	% Total on site
Yes	283	65.4%
High	4	1.4%
Mod.A	31	11.0%
Mod.B	140	49.5%
Mod.C	70	24.7%
Low	30	10.6%
Very Low	8	2.8%
No	150	34.6%
Mod.B	12	8.0%
Mod.C	54	36.0%
Low	80	53.3%
Very Low	4	2.7%
Grand Total	433	100.0%

3.3 Arboricultural ratings

The study area has a large stock of tree assets that are established, broadly suited to the landscape and in fair or better condition with 43% of trees on site accorded an arboricultural rating of Moderate B or higher. These trees are typically recommended for consideration in design plans and should be retained. Particularly strong consideration is given to the 31 Moderate A and four (4) High-rated trees representing well-sited specimens with good or outstanding arboricultural values, with a significant cluster around the school and health centre. Refer to Appendix 3 for images including High-rated trees 171 (Image 34), 212 (Image 38), 289 (Image 55) and 358 (Image 72); and Moderate A trees 17 and 19 (Images 4-5), 29 (Image 9), 40, 53 and 46 (Images 10-12), 60 (Image 13), 92 (Image 16), 107, 223 and 225 (Images 20-22), 122 (Image 24), 139 (Image 31), 180 (Image 36), 242 (Image 40), 263 (Image 44), 280 (Image 49), 288 and 290 (Images 55-57), 315 (Image 60), 324 (Image 62), 330-332 (Image 64), 354 (Image 68), 342 (Image 69), 357 (Image 71), 396 (Image 81).

Moderate C rated trees (29% of total on site) were evenly split between established trees beginning to accumulate defects, and semi-mature trees >15cm in diameter with the potential to become suitable elements of the landscape over time. Retention of these trees may be generally recommended but either on a shorter time frame or on a case by case basis for smaller trees. Examples include Trees 25 (Image 7), 65 (Image 14), (Image 17), 116 (Image 25), 162-164 (Image 33), 185 (Image 37), 281-282 (Image 50), 287 (Image 54), 397 (Image 82), 421 (Image 90).

Low-rated trees (25% of total on site) primarily comprised smaller trees or shrubs that could be relatively easily replaced; however, over a third of Low-rated trees were larger trees with more significant defects. Retention of these trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location. Low-rated trees should not, from an arboricultural perspective, overly constrain landscape renewal. Examples include Trees 356 (Image 70) and 383 (Images 77-78) – note discussion around Tree 383 in Appendix 3.

The 12 Very Low-rated trees are either dead or nearly so and should be removed. The Very Low-rated tree group (G4) is a thicket of Tree of Heaven (*Ailanthus altissima*) which is highly invasive and must to be removed to reduce further vegetative spread.

3.4 Early-mature to maturing trees

The site was characterised by an abundance of early-mature to maturing trees (42% and 27% of trees on site respectively; total 298 trees), likely part of the original plantings dating to the estate's inception, with some newer infill plantings complementing these larger trees. As is typical of maturing populations, a proportion of trees are in a stage of decline (typically species with shorter useful life expectancies due to inherent characteristics).

3.4.1 ULE of older trees

Nearly 45% of early-mature to maturing trees were accorded a moderate anticipated useful life expectancy (ULE) of 11-20 years, but a further 25% of such trees were accorded a shorter ULE of 10 years or less and are strong candidates for staged replacement. Note however that the ULE is a conservative estimate; many trees with an ULE of 11-20 may continue to thrive beyond 20 years.

3.4.2 Characteristic species among early-mature to maturing trees

Of these older trees, the top four most common species (36%) comprised large native trees typically in excess of 18 metres in height on average: Spotted Gum (*Corymbia maculata*), Southern Blue Gum (*Eucalyptus globulus*), Sydney Blue Gum (*Eucalyptus saligna*) and Red Ironbark (*Eucalyptus*

sideroxylon). These trees, which may otherwise be oversized for dense urban contexts typical of much of the City of Yarra, are relatively well-suited visually to the large scale of the towers and open spaces.

Other common native species in this category include River She-oak (*Casuarina cunninghamiana*), Narrow-leaved Black Peppermint (*Eucalyptus nicholii*), River Red Gum (*Eucalyptus camaldulensis* – including two High-rated specimens), and Lemon-scented Gum (*Corymbia citriodora*).

There are limited but distinctive plantings of more established deciduous trees, notably Golden Wych Elm (*Ulmus glabra* 'Lutescens') in clusters near the southernmost tower and the western multistorey carpark. Other characteristic deciduous species are London Plane (*Platanus xacerifolia*), notably near the Elizabeth Street flats and the northern entrances to the northern towers, and two Poplar species around the northern towers – Grey Poplar (*Populus xcanadensis*), Simon's Poplar (*Populus simonii*).

These trees could collectively be considered most characteristic of the North Richmond public housing landscape both in number and in visual prominence; particularly the very large Spotted Gums and Sydney Blue Gums which are visually similar, the distinctive, large-leaved and rough-barked Southern Blue Gums, and the bright green/yellow canopies of the Golden Elms, all of which are common along the estate's periphery and visible from the street, contributing to overall neighbourhood character.

However, not all these species are anticipated to be equally functional in the landscape with the Poplars and Southern Blue Gums being particularly vulnerable to decline in the next 10 years. The following sections discuss tree conditions specific to more common species.

3.5 Specific tree/species observations

3.5.1 Southern Blue Gum (*Eucalyptus globulus*) fungal decay

The 23 Southern Blue Gums on site were identified to species level only (*Eucalyptus globulus* sensu lato) although it is likely some subspecies were present (e.g. subsp. *bicostata*; subsp. *maidenii*).

It has been observed that Southern Blue Gums in Melbourne are highly susceptible to fungal infections with age (usually *Phellinus* sp.) and exhibit poor compartmentalisation. This was borne out with the current assessment where fungal brackets were observed in nine (9) out of 23 trees (39%). It is possible that several trees without visible fungal fruiting bodies are nevertheless host to fungal decay but at a stage where fruiting bodies are not yet visible from the ground level. This is particularly likely in such trees that also exhibit Fair to Poor health (Trees 89, 111, 185), taking trees with fungal decay or a very high likelihood of such up to 12 out of 23 trees (52%).

Presence of fungal brackets notwithstanding, tree condition tended to be better than anticipated, with four of the nine trees with fungal brackets accorded a Fair health rating, indicating that such decay has either been reasonably well compartmentalised (may be variable depending on subspecies), or that decay has not yet advanced to significantly compromising food and water conducting vessels.

However, this may reflect a survivorship bias as a consequence of trees with advanced decay/failures having already been removed. The trees remaining on site may not therefore necessarily be a fair representation of the overall population's resistance to fungal decay.

It should also be noted that while fungal decay may not necessarily be reflected in canopy decline in the initial stages, it can result in localised loss of wood strength, especially where dieback and decay is observed at or near branch unions, progressing to whole canopy dieback in more advanced stages.

Nevertheless, many of the trees have good landscape, amenity and habitat values with eight Moderate B trees and two outstanding Moderate A specimens; many trees have broad, dense, elevated canopies

which are highly suited for shade and also soften the harsh built form of the landscape. Additionally, many of the trees observed had fungal decay and brackets lower in the trunk which typically is less likely to result in tree failure at that location, compared to decay at branch unions, and none of the trees assessed exhibited an elevated risk level that would warrant their removal in the short term.

Medium to long-term master planning should consider recommendations on management of these trees as outlined in section 5.2.1.

Refer to Images 16 and 56 for examples of Moderate A Southern Blue Gums, Images 15, 17, 23, 52, 74 (with fungal bracket) for Moderate B of the same, and Images 14, 25, 35, 37 for a range of Moderate C of the same. Images 70 and 80 show examples of Low-rated Southern Blue Gums in an advanced stage of decline, likely retained in the landscape due to small size (larger examples would have been removed).

3.5.2 **Poplars (*Populus* sp.)**

Poplars are a notable feature of the landscape around the towers being the largest deciduous trees around and often planted in more heavily used or viewed areas. There are seventeen (17) trees in the population with the two main species being *Populus simonii* (Simon's Poplar, six trees) and *Populus xcanadensis* (Grey Poplar, nine trees). These include three trees that have been significantly lopped (Trees 257-259) likely in preparation for removal (Image 42).

While only a minority of the trees on site exhibited significant decline in condition all remaining trees were accorded a rating of Moderate C as the two species listed are understood to not have a particularly long lifespan in Melbourne (moreso with increasing temperatures), and Grey Poplar in particular has an elevated tendency towards limb failure and weak structure, which also poses maintenance issues with larger trees.

In this light it is anticipated that most of the Poplars on site are unlikely to be a long-term component of the landscape and further decline may be expected in this population, although several specimens with Fair health and structure (5 trees) could have a moderate useful life expectancy (e.g. Image 33).

3.5.3 **Trees within demolition areas (Elizabeth Street)**

Trees 1-7 were, at the time of assessment, behind opaque demolition hoarding panels limiting visual assessment of growing conditions and tree condition from below 5 metres in most instances.

Tree 7 could be observed from a distance through the entry gate and the surrounding soil appeared compacted with vehicular parking on exposed soil within the TPZ and no tree protection measures visible (Image 3). It cannot be determined whether Trees 1-6 were in a similar situation and whether present construction measures may influence the trees' condition in relation to long-term retention considerations for master planning purposes.

Separately, it was also noted that Trees 1-5, west of the housing block facing Lennox Street, had developed a westerly crown bias to varying degrees (Images 1-2). It would be reasonable to assume that the structure and pattern of response growth in these trees has developed in response to existing configurations, and that the demolition of the housing block will represent a sudden and acute change in wind load to these trees (particularly Trees 2, 3 and 5).

Retention of these trees for masterplanning purposes should consider appropriate management practices as outlined in section 5.2.2.

4 Tree Observations (street trees)

4.1 Tree assessment summary tables

A total of 85 street trees surrounding the study area were assessed. All street trees were exotic deciduous trees with Table 1 showing a breakdown of trees by street and arboricultural rating, and Tables 2-4 showing a breakdown by age class, useful life expectancy (ULE) and species.

Table 7: Breakdown of arboricultural rating for street trees by street section

Arb. Rating	Church St	Elizabeth St	Highett St (N)	Highett St (S)	Lennox St	Grand Total
Mod.A				1		1
Mod.B			7	1	4	12
Mod.C	1				2	3
Low	6	42	4	3	11	66
Very Low		3				3
Grand Total	7	45	11	5	17	85

Table 8: Breakdown of age class for street trees

Age Class	Trees	% Total (street trees)
Young	63	74.1%
Semi-mature	13	15.3%
Early-mature	9	10.6%
Grand Total	85	100.0%

Table 9: Breakdown of useful life expectancy (ULE) for street trees

ULE (years)	Trees	% Total (street trees)
<1	3	3.5%
6-10	6	7.1%
11-20	1	1.2%
21-40	59	69.4%
>40	16	18.8%
Grand Total	85	100.0%

Table 10: Breakdown of species and location for street trees

#	Species	Section	Trees	% Total (street trees)
1	<i>Zelkova serrata</i> 'Green Vase'	Elizabeth	45	52.9%
2	<i>Platanus xacerifolia</i>	Highett	9	10.6%
2	<i>Acer xfreemanii</i> 'Autumn Blaze'	Church	7	8.2%
3	<i>Quercus robur</i>	Highett	7	8.2%
4	<i>Ulmus minor</i>	Lennox	6	7.1%
5	<i>Ulmus xhollandica</i>	Lennox	5	5.9%
6	<i>Ulmus</i> sp.	Lennox	5	5.9%
7	<i>Fraxinus</i> sp.	Lennox	1	1.2%
8	Grand Total		85	100.0%

4.2 Highett Street

Trees in this section (Trees 451-466), between Lennox Street and Belgian Avenue, were varied with a mixture of likely early-mature London Planes (*Platanus xacerifolia*) in generally fair or good condition, remarkably for trees in asphalt pavement cutouts; and newer plantings of English Oak (*Quercus robur*) planted in road cutouts between on-street parking spaces, with tree performance yet to be determined. While all street trees must be retained and protected appropriately unless otherwise indicated by Council, the London Planes represent some of the best street trees in the assessed precinct and should be prioritised for protection in the event of redevelopment (e.g. crossover locations).

4.3 Lennox Street

Street trees (Trees 434-450) were only present on Lennox Street between Highett Street and Peers Street, in an approximately 2 metre-wide grassed nature strip, with the northern section of the street complemented by borrowed canopy from within the public housing sites.

This section is characterised by the presence of Elms; species identification was not conclusive but there is likely a mixture of Dutch Elm (*Ulmus xhollandica*) and Field Elms (*Ulmus minor*); further identification would need to be confirmed while the trees are in leaf.

Tree condition was varied with four specimens being in better condition between Egan and Peers Streets (west of the primary school), while trees between Egan and Highett Streets were markedly reduced in canopy size and vigour with crown reductions conducted in the past. These latter trees are likely to be only short-term components of the landscape (for larger specimens), and performance of more newly planted trees is yet to be determined.

4.4 Church Street

Street trees (Trees 512-518) were assessed in the section between Elizabeth Street and Risley Street, all semi-mature or young specimens of Freeman Maple (*Acer xfreemantii*, likely 'Autumn Blaze' cultivar) growing in pavement cutout. The two semi-mature specimens were present on the northern and southern extent while the rest were relatively new plantings (late 2020) in existing tree plots where past plantings had been removed.

4.5 Elizabeth Street

Elizabeth Street had by far the most trees (Trees 467-518), all being new plantings (mid 2020) in newly created 1 metre x 1 metre pavement cutouts 1x1 pavement cutout. All trees were staked with basal tree guards with varying levels of mulch. While the useful life expectancy of these trees is difficult to ascertain as yet, a small minority of trees were already damaged, and it is anticipated that performance of the remaining trees will vary depending on levels of shade from adjacent maturing canopies and other environmental factors.



5 Recommendations and Conclusion

5.1 General tree retention considerations

The majority of trees assessed are established, early-mature to maturing specimens generally in fair condition of moderate or higher value. These trees are distinctive in the broader landscape for their canopy size, height, and predominantly Australian native origin, given the otherwise dense and relatively urbanised context with primarily exotic street tree planting.

Trees rated Moderate B and above should be considered for retention as a backbone of future landscapes for at least the next 20 years, being maturing assets that are difficult to replace like-for-like and contribute strongly to an established sense of place in the North Richmond area.

Trees to be retained are to be protected during any construction or other works according to the tree protection zones and construction methods outlines in Appendix 5.

5.1.1 Retention of groups of trees

Where trees occur in distinct groups, it is generally preferred to retain them as a group as the trees will have developed a form and structure in response to their current configuration. Isolating such trees will expose them to unexpected stressors (e.g. wind load, sun exposure, even changes in soil microbiota) that the tree may not respond to within the desired time frame, which could shorten the ULE of the retained trees and/or increase their risk profile.

Particular consideration should be given to groups of trees where Moderate B or higher rated trees dominate. In such clusters lower-rated trees may be retained to allow for succession planting or mid-storey layers, notwithstanding trees with Poor health or structure that may warrant eventual removal. Examples of such clusters include:

- Corridor of trees near the north-central tower (134-149) – Images 10-12
- Large trees along Lennox Street frontage (40, 46, 51-53) – Images 29-30
- Trees north of Community Health Centre from Lennox Street to the multistorey carpark (223-242, 288-290) – Images 39-40, 55-57
- Trees around the periphery of North Richmond Primary School and along driveway from Lennox Street (314-315, 319, 324, 280, 330-358) – Images 60-62, 64, 67-69, 71-72
- Cluster of trees between southernmost tower and Highett Street (396-424) – Images 81-89

5.1.2 Isolated higher-rated trees and street trees

More isolated trees of Moderate A or High ratings are strongly recommended for retention as feature trees (e.g. Trees 17, 171). Where trees are growing in tighter spaces (e.g. Trees, 19, 29, 212) retention should aim to minimise further surface encroachment within tree protection zones and emphasise the use of tree-sensitive methods where demolition of hard surfaces is involved.

All street trees and their protection zones should be retained and protected unless expressly approved by Council. Trees with higher ratings should be preferentially retained and incorporated into landscape plans if significant changes to streetscapes are anticipated during master planning.

5.2 Specific tree retention considerations

5.2.1 Southern Blue Gum (*Eucalyptus globulus*)

While Southern Blue Gums are typically not recommended for retention in urban contexts due to their size and propensity for fungal decay, given their prevalence and contribution to the landscape in the study area, Moderate-rated specimens, particularly the six Moderate B and two Moderate A trees (Trees 92 and 288) should be preferentially retained, but with targeted management conveyed to tree managers and workers, including more regular, thorough assessments (at least every year; reliance on passive observations from residents may assist as well) and proactive, appropriate pruning to manage crown shape and size in trees beginning to exhibit some dieback symptoms.

As shown by several specimens in the study area, presence of fungal decay does not immediately negate the tree's amenity and urban habitat values (e.g. Image 74), nor does it necessarily represent a rapid elevation of the tree's risk profile, and short-term removal of all such trees is not necessarily warranted or justified considering the impact to the landscape and the potential of management options.

However, any future planning for the landscape should anticipate the eventual decline of the population within an approximately 20-year timeframe and plan for a staged removal based on condition and other considerations. New specimens of the species should not be planted.

5.2.2 Trees within demolition areas

Trees currently within demolition areas that are to be retained should be managed by a suitably qualified project arborist including installation and inspection of appropriate protection measures.

A full assessment of Trees 1-5 is recommended to determine retention potential after demolition of adjacent buildings, and whether additional pruning works may be required to mitigate the likelihood of tree part failure upon exposure to new wind loads from the east.

5.2.3 Trees in narrow spaces and infrastructure conflict

Where trees are growing in constrained spaces, for example adjacent to multi-storey carparks or directly next to footpaths (e.g. Images 47-54), the likelihood of infrastructure damage and difficulty of maintenance should be balanced out by amenity value. Trees exhibiting reduced growth parameters due to limited growing space may need to be managed more proactively or replaced in stages. However, trees not exhibiting any issues may still constitute a valuable and unique element of the landscape as replacement of trees of that size would be particularly challenging (e.g. 278, 279, 284).

In some cases, retention of highly rated trees may be desirable despite potential infrastructure conflicts, with effort placed into regular maintenance of the affected infrastructure (e.g. footpaths), as long as these conflicts do not significantly outweigh the benefits provided by the tree (e.g. 212, 399).

5.3 Tree work recommendations

Thirty-three (33) trees were highlighted as requiring moderate priority works for removal or to support their retention in the landscape, primarily to be scheduled within 12 months of this report. These trees are shown in Table 11.

Table 11: List of trees highlighted for removal, pruning or other tree works generally within 12 months

No	Species (Common Name)	DBH (cm)	HxW (m)	Arb. Rating	Map	Recommended Works (Hidden)
17	<i>Eucalyptus viminalis</i> (Manna Gum)	149	30x23	Mod.A	1	Remove deadwood
19	<i>Eucalyptus sideroxylon</i> (Red Ironbark)	77	24x17	Mod.A	1	Reduce branches over building
22	<i>Gleditsia triacanthos</i> (Honey Locust)	27	9x11	Mod.B	1	Clearance pruning - building
25	<i>Platanus Xacerifolia</i> (London Plane)	36	12x12	Mod.C	1	Remove hangers, deadwood
35	<i>Melaleuca styphelioides</i> (Prickly-leaved Paperbark)	2,2,2,2,2	2x3	Very Low	2	Remove tree
65	<i>Eucalyptus globulus</i> (Southern Blue Gum)	81	20x22	Mod.C	1,2	Reduce over-extended limb
73	<i>Ulmus glabra</i> 'Lutescens' (Golden Wych Elm)	35	10x10	Mod.B	1,2	Remove/reduce crossing branch
86	<i>Eucalyptus sideroxylon</i> (Red Ironbark)	60	18x15	Mod.C	2	Further decay inspection
107	<i>Eucalyptus camaldulensis</i> (River Red Gum)	107	20x14	Mod.A	1	Reduce over-extended limbs to north
140	<i>Casuarina cunninghamiana</i> (River She-oak)	66	22x14	Mod.B	3	Remove deadwood
146	<i>Eucalyptus sideroxylon</i> (Red Ironbark)	55	15x17	Mod.B	3	Reduce limb over basketball court
150	<i>Eucalyptus viminalis</i> (Manna Gum)	83	18x13	Mod.C	3	Crown reduce (20%)
164	<i>Populus Xcanadensis</i> (Grey Poplar)	51	18x12	Mod.C	3	Reduce branch over basketball court
171	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	96	20x26	High	3	Reduce western limb
185	<i>Eucalyptus globulus</i> (Southern Blue Gum)	87	27x18	Mod.C	3	Remove deadwood
229	<i>Platanus Xacerifolia</i> (London Plane)	33	12x11	Very Low	2	Remove tree
245	<i>Populus simonii</i> (Simon's Poplar)	38	12x6	Low	2	Remove tree
254	<i>Eucalyptus nicholii</i> (Narrow-leaved Black Peppermint)	33	8x9	Very Low	2	Remove tree
261	<i>Eucalyptus nicholii</i> (Narrow-leaved Black Peppermint)	51	13x9	Mod.C	3	Remove deadwood
284	<i>Eucalyptus globulus</i> (Southern Blue Gum)	106	21x15	Mod.B	2,4	Remove deadwood
313	<i>Eucalyptus sideroxylon</i> (Red Ironbark)	21	8x5	Mod.C	2,4	Reduce secondary leader towards carpark to west, reduce branch with acute forks to east.
315	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	59	21x15	Mod.A	2,4	Reduce weight over driveway
327	<i>Agonis flexuosa</i> (Willow Myrtle)	47 @0.1	12x11	Mod.C	4	Cabling/bracing
343	<i>Eucalyptus nicholii</i> (Narrow-leaved Black Peppermint)	40	15x8	Very Low	4,5	Remove tree
345	<i>Eucalyptus viminalis</i> (Manna Gum)	45	15x8	Very Low	4,5	Remove tree
351	<i>Ulmus glabra</i> 'Lutescens' (Golden Wych Elm)	49	11x12	Low	4,5	Remove deadwood
353	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	59	24x15	Mod.B	4,5	Reduce overextended limbs to north
378	<i>Corymbia maculata</i> (Spotted Gum)	10	4x3	Very Low	5	Remove tree
383	<i>Eucalyptus saligna</i> (Sydney Blue Gum)	78	16x10	Low	5	Further decay inspection (see Appendix 3, images 77-78 for further comments)
384	<i>Eucalyptus camaldulensis</i> (River Red Gum)	16	8x3	Very Low	5	Remove tree
388	<i>Eucalyptus sideroxylon</i> (Red Ironbark)	56	16x15	Mod.B	5	Reduce overextended branches to west
395	<i>Populus alba</i> (White Poplar)	41	15x10	Low	5	Remove deadwood
421	<i>Eucalyptus globulus</i> (Southern Blue Gum)	73	16x12	Mod.C	5	Further decay inspection
426	<i>Eucalyptus crenulata</i> (Buxton Gum)	53,48	4x12	Very Low	5	Remove tree

Trees should be generally monitored every 3-5 years and also after significant weather events, with work scheduled as appropriate after each re-inspection. Tree condition can also change suddenly after site modification, so trees impacted by any construction should be assessed annually for a few years after any construction work is completed.

There is no warranty or guarantee, expressed or implied by Tree Logic Pty. Ltd., that problems or deficiencies relating to the plants or site in question will not arise in the future.



Manori Senanayake
Consultant, GDip. (Urb. Hort.)

Appendix 1: Tree Assessment Table

Refer to the following eleven (11) pages.

- DBH = Diameter at Breast Height (estimated at 1.4m above ground unless otherwise stated)
- ULE = Useful Life Expectancy
- Local Law = City of Yarra Local Law.
 - Yes = Tree is a Significant Tree that is not a street tree. Local Law permit required for removal. Refer to Section 2.5.2 of main body.
 - Street = Street tree. Street Trees may not be removed, damaged, or otherwise impacted without Council approval.
 - No = Local Law permit not required

Refer to Appendix 3 for tree images.

Definitions of the descriptor categories used in the assessment can be seen in Appendix 4.

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
1	<i>Eucalyptus melliodora</i>	Yellow Box	Early-mature	Victorian native	65 (est.)	75	19	16	Fair	Fair to Poor	Mod.B	11-20	Behind demo fences, limited assessment. Acute forks. E. camaldulensis hybrid?	15/06/2021	7.8	2.9	Elizabeth Street walk-ups	1	Yes
2	<i>Eucalyptus melliodora</i>	Yellow Box	Early-mature	Victorian native	45 (est.)	54	15	13	Fair	Fair	Mod.B	21-40	Behind demo fences, limited assessment. Partly suppressed - crown bias south. Acute forks. E. camaldulensis hybrid?	15/06/2021	5.4	2.6	Elizabeth Street walk-ups	1	Yes
3	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	80 (est.)	88	17	14	Fair	Fair to Poor	Mod.C	11-20	Behind demo fences, limited assessment. Minor dieback.	15/06/2021	9.6	3.1	Elizabeth Street walk-ups	1	Yes
4	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Maturing	Australian native	47 (est.)	55	12	14	Fair to Poor	Fair	Mod.B	11-20	Behind demo fences, limited assessment. Partly suppressed - crown bias. Generally dense canopy but also localised dieback. May be lower end of ULE.	15/06/2021	5.6	2.6	Elizabeth Street walk-ups	1	Yes
5	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	50 (est.)	58	16	14	Fair	Fair	Mod.C	11-20	Behind demo fences, limited assessment. No lower canopy. Must be retained with adjacent tree - demolition of flats likely to change wind load to east, no further sudden changes recommended.	15/06/2021	6.0	2.6	Elizabeth Street walk-ups	1	Yes
6	<i>Eucalyptus leucoxylon 'Rosea'</i>	Pink-flowered Yellow Gum	Early-mature	Australian native	30 (est.)	35	10	7	Fair	Fair to Poor	Low	6-10	Behind demo fences, limited assessment. Severe powerline pruning	26/07/2021	3.6	2.1	Elizabeth Street walk-ups	1	No
7	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	48 (est.)	56	14	10	Fair to Poor	Fair	Mod.C	11-20	Behind demo fences, limited assessment. No TPZ fencing. Soil compaction, dieback.	15/06/2021	5.8	2.6	Elizabeth Street walk-ups	1	Yes
8	<i>Eucalyptus leucoxylon 'Rosea'</i>	Pink-flowered Yellow Gum	Early-mature	Australian native	30 (est.)	37	9	8	Fair	Fair to Poor	Mod.C	6-10	Behind demo fences, limited assessment. Limb torn to east over driveway.	15/06/2021	3.6	2.2	Elizabeth Street walk-ups	1	No
9	<i>Eucalyptus leucoxylon</i>	Yellow Gum	Early-mature	Victorian native	30 (est.)	37	10	7	Fair to Poor	Fair to Poor	Low	6-10	Behind demo fences, limited assessment. Dieback, reduced foliage density, partly suppressed - crown bias south. Small crown.	15/06/2021	3.6	2.2	Elizabeth Street walk-ups	1	No
10	<i>Eucalyptus scoparia</i>	Wallangarra White Gum	Maturing	Australian native	57	65	13	14	Fair	Fair	Mod.B	11-20	Minor dieback and foliage discolouration - lerp/psyllid damage? TPZ extends into current demolition area.	15/06/2021	6.8	2.8	Elizabeth Street walk-ups	1	Yes
11	<i>Ricinis communis</i>	Castor Oil Plant	Semi-mature	Exotic evergreen	23	27	5	7	Fair to Poor	Fair to Poor	Mod.C	6-10	Shrub	15/06/2021	2.8	1.9	Elizabeth Street walk-ups	1	No
12	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	57	60	11	13	Fair	Fair	Mod.B	11-20	Minor deadwood lower crown.	15/06/2021	6.8	2.7	Elizabeth Street walk-ups	1	Yes
13	<i>Agonis flexuosa</i>	Willow Myrtle	Maturing	Australian native	98,59	124	11	13	Fair	Fair	Mod.B	11-20	Co-dominant stems. Compact crown. Likely lower end of ULE.	15/06/2021	13.7	3.6	Elizabeth Street walk-ups	1	Yes
14	<i>Photinia serratifolia</i>	Chinese Hawthorn	Early-mature	Exotic evergreen	29	34	10	9	Fair	Fair to Poor	Mod.C	6-10		15/06/2021	3.5	2.1	Elizabeth Street walk-ups	1	No
15	<i>Photinia serratifolia</i>	Chinese Hawthorn	Early-mature	Exotic evergreen	34	41	10	11	Fair	Fair to Poor	Mod.C	6-10		15/06/2021	4.1	2.3	Elizabeth Street walk-ups	1	Yes
16	<i>Photinia serratifolia</i>	Chinese Hawthorn	Early-mature	Exotic evergreen	25	32	7	8	Fair to Poor	Fair to Poor	Low	6-10	Stunted?	15/06/2021	3.0	2.1	Elizabeth Street walk-ups	1	No
17	<i>Eucalyptus viminalis</i>	Manna Gum	Maturing	Victorian native	149	192	30	23	Fair	Fair to Poor	Mod.A	11-20	Some localised dieback in lower crown. Included bark forks. Previously well pruned, maintain inspection/pruning regime and remove deadwood.	15/06/2021	15.0	4.4	Elizabeth Street walk-ups	1	Yes
18	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	41	53	12	11	Fair	Fair to Poor	Mod.B	21-40	Basal wounds. Adjacent to fence, some past branch failures and could do with some pruning to improve form.	15/06/2021	4.9	2.5	Elizabeth Street walk-ups	1	Yes
19	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	77	84	24	17	Good	Fair	Mod.A	11-20	Over-extended limbs over building, past branch failure. In limited soil space 4x5m with compacted bare soil.	15/06/2021	9.2	3.1	Elizabeth Street walk-ups	1	Yes
20	<i>Eucalyptus melliodora</i>	Yellow Box	Early-mature	Victorian native	63	72	18	17	Good	Fair	Mod.B	11-20	Limbs to south recently pruned back heavily (26 Jul) significantly changing form. Still fairly overextended limbs to west. Very dense foliage. Narrow growing space. Slight footpath cracking and heaving.	15/06/2021	7.6	2.9	Elizabeth Street walk-ups	1	Yes
21	<i>Gleditsia triacanthos</i>	Honey Locust	Semi-mature	Exotic deciduous	34	40	10	12	Fair	Fair	Mod.B	11-20	Crown bias south. Behind low fence.	15/06/2021	4.1	2.3	Elizabeth Street walk-ups	1	Yes
22	<i>Gleditsia triacanthos</i>	Honey Locust	Semi-mature	Exotic deciduous	27	33	9	11	Fair	Fair	Mod.B	11-20	Crown bias northwest, behind fence in bin area. Canopy touching building.	15/06/2021	3.2	2.1	Elizabeth Street walk-ups	1	No
23	<i>Gleditsia triacanthos</i>	Honey Locust	Semi-mature	Exotic deciduous	26	33	9	7	Fair to Poor	Poor	Mod.C	11-20	Smaller, narrow crown due to suppression; crown bias north. Could be retained in group but less so alone.	15/06/2021	3.1	2.1	Elizabeth Street walk-ups	1	No
24	<i>Gleditsia triacanthos</i>	Honey Locust	Semi-mature	Exotic deciduous	34	38	12	11	Fair	Fair to Poor	Mod.C	11-20	Behind low fence in garden area seemingly managed by resident. Narrow crown, partly suppressed - crown bias south.	15/06/2021	4.1	2.2	Elizabeth Street walk-ups	1	No
25	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	36	44	12	12	Fair	Fair to Poor	Mod.C	11-20	Numerous hangers in crown, extremely narrow growing space adjacent to playground. Could be retained with longer ULE if given more space and pruned appropriately.	15/06/2021	4.3	2.3	Elizabeth Street walk-ups	1	Yes
26	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	46	51	12	14	Fair	Fair to Poor	Mod.C	11-20	One leader lopped. Excessive weight to north west.	15/06/2021	5.5	2.5	Elizabeth Street walk-ups	1	Yes
27	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	47	50	10	11	Fair	Fair to Poor	Mod.C	6-10	Epicormic crown, lopped at apex. Very constrained growing space. Partly suppressed - crown bias east.	15/06/2021	5.6	2.5	Elizabeth Street walk-ups	1	Yes
28	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	46	50	12	14	Fair	Fair	Mod.B	21-40	Limbs becoming overextended to west.	15/06/2021	5.5	2.5	Elizabeth Street walk-ups	1	Yes
29	<i>Fraxinus angustifolia subsp. angustifolia</i>	Desert Ash	Maturing	Exotic deciduous	63	71	13	15	Fair	Fair	Mod.A	11-20	Small hollows. Well-pruned in past. Narrow growing space but no evidence of major heaving/cracking.	15/06/2021	7.6	2.9	Elizabeth Street walk-ups	1	Yes
30	<i>Lagerstroemia indica</i>	Crape Myrtle	Semi-mature	Exotic deciduous	11,10,8	14	8	8	Fair to Poor	Fair to Poor	Mod.C	11-20		15/06/2021	2.0	1.5	Elizabeth Street walk-ups	1	No
31	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Maturing	Australian native	26,25	41	9	10	Fair	Fair	Mod.C	6-10	Ivy on trunk	15/06/2021	4.3	2.3	Elizabeth Street walk-ups	1	Yes
32	<i>Lagerstroemia indica</i>	Crape Myrtle	Semi-mature	Exotic deciduous	13@1.2	16	4	3	Fair	Fair	Low	11-20		26/07/2021	2.0	1.5	Elizabeth Street walk-ups	1	No
33	<i>Casuarina cunninghamiana</i>	River She-oak	Maturing	Australian native	55	71	15	12	Good	Fair	Mod.B	11-20	Partly suppressed - crown bias west.	15/06/2021	6.6	2.9	Towers - North	2	Yes
34	<i>Tristaniopsis laurina</i>	Kanooka	Early-mature	Australian native	21,17,17	40	6	6	Fair	Fair to Poor	Mod.C	11-20	Acute forks, co-dominant stems.	18/06/2021	3.8	2.3	Towers - North	2	Yes
35	<i>Melaleuca styphelioides</i>	Prickly-leaved Paperbark	Early-mature	Australian native	2,2,2,2,2	20	2	3	Fair	Fair to Poor	Very Low	1-5	Stump resprout.	18/06/2021	2.0	1.7	Towers - North	2	No
36	<i>Pittosporum tenuifolium 'Aureum'</i>	Kohuhu	Maturing	Exotic evergreen	21	22	4	5	Fair	Fair to Poor	Low	6-10	Acute forks.	18/06/2021	2.5	1.8	Towers - North	2	No
37	<i>Geijera parviflora</i>	Wirilga	Maturing	Australian native	37	40	8	9	Fair	Fair	Mod.C	11-20	Partly suppressed - crown bias east over driveway.	18/06/2021	4.4	2.3	Towers - North	2	Yes
38	<i>Geijera parviflora</i>	Wirilga	Maturing	Australian native	31	38	7	8	Fair	Fair	Mod.C	11-20	Partly suppressed - crown bias southwest.	18/06/2021	3.7	2.2	Towers - North	2	No
39	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	59	77	19	16	Fair	Fair	Mod.B	11-20	Partly suppressed - crown bias south, northern limb removed.	18/06/2021	7.1	3.0	Towers - North	2	Yes
40	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	64	85	21	17	Fair	Fair	Mod.A	21-40	Co-dominant stems, U-shaped union, past branch failure.	18/06/2021	7.7	3.1	Towers - North	2	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
41	<i>Callistemon 'Kings Park Special'</i>	King's Park Special Bottlebrush	Early-mature	Australian native	15,9,7	33	4	5	Fair	Fair	Low	11-20		18/06/2021	2.3	2.1	Towers - North	2	No
42	<i>Populus nigra 'Italica'</i>	Lombardy Poplar	Early-mature	Exotic deciduous	34	44	16	3	Fair to Poor	Fair to Poor	Low	6-10	Deadwood >50mm, main leader dead, tip dieback.	15/06/2021	4.1	2.3	Towers - North	2	Yes
43	<i>Callistemon salignus</i>	Willow Bottlebrush	Maturing	Australian native	19	24	11	6	Poor	Fair to Poor	Low	1-5	Partly suppressed - crown bias west.	18/06/2021	2.3	1.8	Towers - North	2	No
44	<i>Pittosporum undulatum</i>	Sweet Pittosporum	Semi-mature	Victorian native	28	35	9	6	Fair	Fair	Low	11-20	Woody weed species.	18/06/2021	3.4	2.1	Towers - North	2	No
45	<i>Callistemon salignus</i>	Willow Bottlebrush	Semi-mature	Australian native	13,10	19	6	6	Fair	Fair to Poor	Low	6-10	Partly suppressed - crown bias east.	18/06/2021	2.0	1.6	Towers - North	2	No
46	<i>Eucalyptus viminalis</i>	Manna Gum	Maturing	Victorian native	125	147	22	23	Fair	Fair	Mod.A	11-20	Crossing branches, deadwood >50mm. Upper crown becoming sparse but good candidate for crown reduction for long term retention.	18/06/2021	15.0	3.9	Towers - North	2	Yes
47	<i>Agonis flexuosa</i>	Willow Myrtle	Semi-mature	Australian native	16,13	20	7	6	Fair to Poor	Fair to Poor	Low	6-10	Exposed roots due to pedestrian use. Reduced vigour.	18/06/2021	2.5	1.7	Towers - North	2	No
48	<i>Pittosporum undulatum</i>	Sweet Pittosporum	Semi-mature	Victorian native	13,12, 11,10	26	8	9	Fair	Fair to Poor	Low	11-20	Woody weed species.	18/06/2021	2.8	1.9	Towers - North	1,2	Yes
49	<i>Eucalyptus melliodora</i>	Yellow Box	Semi-mature	Victorian native	28	35	11	8	Fair	Fair	Mod.B	>40		18/06/2021	3.4	2.1	Towers - North	1,2	No
50	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	44	50	17	14	Good	Fair	Mod.B	>40	Potential to be Mod A tree.	18/06/2021	5.3	2.5	Towers - North	1,2	Yes
51	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	88	109	23	20	Fair	Fair to Poor	Mod.B	11-20	Acute forks. Recent branch failure to west, reduction pruning carried out.	18/06/2021	10.6	3.4	Towers - North	1	Yes
52	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	66	70	17	13	Fair	Fair to Poor	Mod.B	11-20	Co-dominant stems, over-extended limbs. Lionstailing to west.	18/06/2021	7.9	2.8	Towers - North	1	Yes
53	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	93	101	20	16	Fair	Fair	Mod.A	11-20	Deadwood >50mm. Recent reduction pruning to west.	18/06/2021	11.2	3.3	Towers - North	1	Yes
54	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	67	70	14	12	Fair to Poor	Fair	Mod.C	11-20	Likely lower end of ULE. High amenity location but species not sustainable in long term. Minor dieback.	18/06/2021	8.0	2.8	Towers - North	1	Yes
55	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	17	20	10	7	Fair to Poor	Fair	Low	21-40	Sooty mold and lerp, reddish foliage.	18/06/2021	2.0	1.7	Towers - North	1	No
56	<i>Acacia baileyana</i>	Cootamundra Wattle	Maturing	Australian native	28,15, 12,12	55	8	12	Fair to Poor	Fair to Poor	Low	1-5		18/06/2021	4.3	2.6	Towers - North	1	Yes
57	<i>Melaleuca armillaris</i>	Bracelet Honey-myrtle	Maturing	Victorian native	34,30	68	6	14	Fair	Poor	Low	6-10	Crown bias west, horizontal trunk.	18/06/2021	5.4	2.8	Towers - North	1	Yes
58	<i>Eucalyptus botryoides</i>	Southern Mahogany	Maturing	Victorian native	59	63	19	15	Fair	Fair	Mod.B	11-20	Deadwood >50mm, hangers.	17/06/2021	7.1	2.7	Towers - North	1	Yes
59	<i>Eucalyptus melliodora</i>	Yellow Box	Semi-mature	Victorian native	6	10	4	3	Fair	Fair	Low	>40		17/06/2021	2.0	1.5	Towers - North	1	No
60	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	72	76	16	15	Good	Good	Mod.A	>40		17/06/2021	8.6	2.9	Towers - North	1	Yes
61	<i>Eucalyptus botryoides</i>	Southern Mahogany	Maturing	Victorian native	77	83	22	19	Fair	Fair	Mod.B	11-20	Minor dieback/deadwood. Northern limb becoming overextended.	17/06/2021	9.2	3.1	Towers - North	1	Yes
62	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	40	44	12	12	Fair	Fair	Mod.B	>40		17/06/2021	4.8	2.3	Towers - North	1	Yes
63	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	42	45	15	12	Fair	Fair	Mod.B	>40		17/06/2021	5.0	2.4	Towers - North	1	Yes
64	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	52	57	15	13	Fair	Fair	Mod.B	>40		17/06/2021	6.2	2.6	Towers - North	1,2	Yes
65	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	81	98	20	22	Fair	Fair to Poor	Mod.C	11-20	Deadwood >50mm, over-extended limbs. Fungal bracket in old tearout wound to west, generally dense canopy but minor dieback at apex.	17/06/2021	9.7	3.3	Towers - North	1,2	Yes
66	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	63	71	20	21	Good	Fair	Mod.B	11-20	Bunting tied to tree.	18/06/2021	7.6	2.9	Towers - North	2	Yes
67	<i>Pittosporum tenuifolium 'Aureum'</i>	Kohuhu	Maturing	Exotic evergreen	15,15, 13,13, 12	35	6	10	Fair to Poor	Poor	Low	1-5	Multi-stemmed.	15/06/2021	3.7	2.1	Towers - North	2	Yes
68	<i>Cotoneaster sp.</i>	Cotoneaster	Semi-mature	Exotic evergreen	21	26	6	9	Fair to Poor	Poor	Low	1-5	Woody weed species.	15/06/2021	2.5	1.9	Towers - North	2	No
69	<i>Ulmus parvifolia</i>	Chinese Elm	Early-mature	Exotic deciduous	26	30	6	8	Fair to Poor	Fair to Poor	Low	1-5	Suppressed.	15/06/2021	3.1	2.0	Towers - North	2	No
70	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	40	46	14	14	Fair	Fair to Poor	Mod.B	11-20	Low live crown ratio on one side.	15/06/2021	4.8	2.4	Towers - North	2	Yes
71	<i>Ulmus parvifolia</i>	Chinese Elm	Early-mature	Exotic deciduous	16,15, 14,8	39	5	6	Fair	Poor	Low	6-10	Acute forks, multi-stemmed.	15/06/2021	3.3	2.2	Towers - North	1,2	Yes
72	<i>Ulmus parvifolia</i>	Chinese Elm	Semi-mature	Exotic deciduous	15	19	4	4	Fair	Fair	Mod.C	11-20	Partly suppressed - crown bias south.	15/06/2021	2.0	1.6	Towers - North	1,2	No
73	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	35	44	10	10	Fair	Fair to Poor	Mod.B	21-40	Crossing branches. Corrective pruning req'd.	15/06/2021	4.2	2.3	Towers - North	1,2	Yes
74	<i>Casuarina cunninghamiana</i>	River She-oak	Maturing	Australian native	62	79	20	13	Fair	Fair	Mod.B	11-20		15/06/2021	7.4	3.0	Towers - North	1,2	Yes
75	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	56	74	18	11	Good	Fair	Mod.A	21-40	Partly suppressed - crown bias north, but becoming dominant.	15/06/2021	6.7	2.9	Towers - North	1,2	Yes
76	<i>Ulmus parvifolia</i>	Chinese Elm	Early-mature	Exotic deciduous	32	37	11	10	Fair	Fair to Poor	Mod.B	11-20	Partly suppressed - crown bias northwest.	15/06/2021	3.8	2.2	Towers - North	1,2	No
77	<i>Casuarina cunninghamiana</i>	River She-oak	Early-mature	Australian native	42	56	16	7	Fair	Fair	Mod.B	21-40		17/06/2021	5.0	2.6	Towers - North	1,2	Yes
78	<i>Ligustrum ovalifolium</i>	Japanese Privet	Early-mature	Exotic evergreen	13	20	4	3	Fair	Fair	Low	11-20	Shrub.	15/06/2021	2.0	1.7	Towers - North	2	No
79	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	50	58	15	11	Fair	Fair	Mod.B	21-40		17/06/2021	6.0	2.6	Towers - North	2	Yes
80	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	100	108	21	19	Fair	Fair	Mod.B	11-20	Deadwood >50mm, over-extended limbs. Developing north, previously well pruned, maintain inspect & prune regime.	17/06/2021	12.0	3.4	Towers - North	2	Yes
81	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	49	55	7	10	Fair	Fair to Poor	Mod.C	11-20	Partly suppressed - crown bias east - considerable. Hangers, over-extended limbs. Could be subsp. <i>tricarpa</i> ?	17/06/2021	5.9	2.6	Towers - North	2	Yes
82	<i>Pittosporum tenuifolium 'Aureum'</i>	Kohuhu	Early-mature	Exotic evergreen	7,6	13	3	3	Fair	Fair	Mod.C	11-20	Shrub.	15/06/2021	2.0	1.5	Towers - North	2	No
83	<i>Eucalyptus viminalis</i>	Manna Gum	Early-mature	Victorian native	45	55	9	8	Fair to Poor	Fair to Poor	Mod.C	6-10	Deadwood >50mm, minor dieback, past limb failure, wounds.	15/06/2021	5.4	2.6	Towers - North	2	Yes
84	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	76	102	24	19	Good	Fair	Mod.A	21-40	Over-extended limbs. Developing, path <1m north, kerb and channel 2.5m west.	17/06/2021	9.1	3.3	Towers - North	2	Yes
85	<i>Corymbia citriodora</i>	Lemon-scented Gum	Early-mature	Australian native	39	48	15	15	Fair	Fair	Mod.B	21-40		15/06/2021	4.7	2.4	Towers - North	2	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
86	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	60	67	18	15	Fair	Fair to Poor	Mod.C	11-20	Low live crown ratio, trunk wounds. Lower limbs removed, bark loose on trunk, trunk flattened in areas, possible torsional cracks, further investigations recommended.	15/06/2021	7.2	2.8	Towers - North	2	Yes
87	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	42	50	10	6	Fair to Poor	Fair	Mod.C	6-10	Minor dieback. Dense epicormic shoots, surrounded by bluestone pavers.	17/06/2021	5.0	2.5	Towers - North	2	Yes
88	<i>Acacia baileyana</i>	Cootamundra Wattle	Maturing	Australian native	21	27	5	7	Fair to Poor	Fair to Poor	Low	1-5	Declining.	15/06/2021	2.5	1.9	Towers - North	2	No
89	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	55	68	17	8	Fair to Poor	Fair to Poor	Low	6-10	Declining. Surrounded by bluestone pavers.	15/06/2021	6.6	2.8	Towers - North	2	Yes
90	<i>Ligustrum ovalifolium</i>	Japanese Privet	Early-mature	Exotic evergreen	16,15,13	33	4	5	Fair	Fair	Low	11-20	Shrub.	15/06/2021	3.1	2.1	Towers - North	2	Yes
91	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	42	50	9	11	Fair	Fair to Poor	Mod.B	11-20	Epicormic crown, lost main leader, over-extended limbs developing, surrounded by bluestone pavers.	15/06/2021	5.0	2.5	Towers - North	2	Yes
92	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	123	130	21	21	Fair	Fair	Mod.A	11-20	Remarkably good specimen.	17/06/2021	14.8	3.7	Towers - North	1	Yes
93	<i>Callistemon salignus</i>	Willow Bottlebrush	Early-mature	Australian native	14	19	5	4	Poor	Fair to Poor	Low	1-5	Declining.	15/06/2021	2.0	1.6	Towers - North	1,2	No
94	<i>Eucalyptus leucoxylon</i> 'Rosea'	Pink-flowered Yellow Gum	Maturing	Australian native	43	57	13	12	Fair	Fair	Mod.B	21-40	Deadwood.	15/06/2021	5.2	2.6	Towers - North	1	Yes
95	<i>Melaleuca styphelioides</i>	Prickly-leaved Paperbark	Semi-mature	Australian native	20	23	6	5	Fair	Fair	Mod.C	21-40		15/06/2021	2.4	1.8	Towers - North	1	No
96	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Early-mature	Australian native	16,15	24	5	5	Fair	Fair to Poor	Mod.C	11-20	Partly suppressed - crown bias east, over driveway.	15/06/2021	2.6	1.8	Towers - North	1	No
97	<i>Photinia serratifolia</i>	Chinese Hawthorn	Early-mature	Exotic evergreen	12,12	20	4	3	Fair	Fair	Low	21-40	Stunted?	17/06/2021	2.0	1.7	Towers - North	1	No
98	<i>Grevillea robusta</i>	Silky Oak	Semi-mature	Australian native	20	23	4	3	Fair	Fair	Low	21-40		17/06/2021	2.4	1.8	Towers - North	1	No
99	<i>Eucalyptus botryoides</i>	Southern Mahogany	Maturing	Victorian native	63	70	21	10	Fair	Fair to Poor	Mod.C	11-20	Narrow crown.	17/06/2021	7.6	2.8	Towers - North	1	Yes
100	<i>Eucalyptus botryoides</i>	Southern Mahogany	Maturing	Victorian native	63	70	20	14	Fair	Fair to Poor	Mod.C	6-10	Deadwood >50mm, epicormic shoots, over-extended limbs.	17/06/2021	7.6	2.8	Towers - North	1	Yes
101	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	65	76	16	14	Fair	Fair	Mod.B	11-20	Deadwood >50mm, minor dieback.	17/06/2021	7.8	2.9	Towers - North	1	Yes
102	<i>Ulmus parvifolia</i>	Chinese Elm	Early-mature	Exotic deciduous	44	62	12	15	Fair	Fair	Mod.B	21-40		17/06/2021	5.3	2.7	Towers - North	1	Yes
103	<i>Grevillea robusta</i>	Silky Oak	Semi-mature	Australian native	16	19	7	3	Good	Fair	Mod.C	>40		17/06/2021	2.0	1.6	Towers - North	1	No
104	<i>Ulmus glabra</i> 'Lutescens'	Golden Wych Elm	Early-mature	Exotic deciduous	45	50	12	12	Fair	Fair	Mod.A	>40	Congested primary union but not unusual for spp.	17/06/2021	5.4	2.5	Towers - North	1	Yes
105	<i>Eucalyptus leucoxylon</i>	Yellow Gum	Semi-mature	Victorian native	19,14	29	7	9	Fair	Fair to Poor	Low	6-10	Partly suppressed - crown bias north.	17/06/2021	2.8	2.0	Towers - North	1,3	No
106	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	42	46	13	11	Fair	Fair	Mod.B	>40		17/06/2021	5.0	2.4	Towers - North	1	Yes
107	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	107	120	20	14	Fair	Fair	Mod.A	>40	Limbs becoming overextended to north.	17/06/2021	12.8	3.6	Towers - North	1	Yes
108	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	63	78	18	20	Fair to Poor	Fair to Poor	Mod.C	6-10	Significant swoop, recent branch failure to east. Very large leaves, similar to P. deltoides but P. x canadensis more common in Vic. Reduced bud density.	17/06/2021	7.6	3.0	Towers - North	1,2	Yes
109	<i>Agonis flexuosa</i>	Willow Myrtle	Early-mature	Australian native	51	57	10	10	Good	Fair to Poor	Mod.B	11-20	Acute forks. Typical of spp.	17/06/2021	6.1	2.6	Towers - North	1,2	Yes
110	<i>Populus simonii</i>	Simon's Poplar	Early-mature	Exotic deciduous	34	39	12	9	Fair	Fair	Mod.C	11-20	Likely lower end of ULE. Slow growth? Limb wound to east	17/06/2021	4.1	2.2	Towers - North	2	No
111	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	67	75	9	13	Fair to Poor	Fair to Poor	Low	6-10	Deadwood >50mm, declining, partly suppressed - crown bias east.	15/06/2021	8.0	2.9	Towers - North	2	Yes
112	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	70	90	17	19	Fair	Fair	Mod.B	11-20	Mower damage to surface roots.	17/06/2021	8.4	3.2	Towers - North	2	Yes
113	<i>Eucalyptus viminalis</i>	Manna Gum	Early-mature	Victorian native	67	63	16	17	Fair	Fair	Mod.B	21-40	Deadwood, partly suppressed - crown bias southeast.	17/06/2021	8.0	2.7	Towers - North	2	Yes
114	<i>Eucalyptus botryoides</i>	Southern Mahogany	Early-mature	Victorian native	38	46	8	13	Good	Fair	Mod.B	11-20	Partly suppressed - crown bias southwest.	15/06/2021	4.6	2.4	Towers - North	2	Yes
115	<i>Melaleuca armillaris</i>	Bracelet Honey-myrtle	Maturing	Victorian native	38,25	50	6	9	Fair	Fair to Poor	Low	6-10	Subsiding limbs.	15/06/2021	5.5	2.5	Towers - North	2	Yes
116	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	71	85	14	11	Fair to Poor	Poor	Mod.C	6-10	Minor localised dieback but otherwise dense canopy. Crown reduced, fungal bracket at past failure to east.	17/06/2021	8.5	3.1	Towers - North	2	Yes
117	<i>Populus simonii</i>	Simon's Poplar	Early-mature	Exotic deciduous	36	40	11	7	Fair	Fair	Mod.C	11-20	Likely lower end of ULE.	17/06/2021	4.3	2.3	Towers - North	2	Yes
118	<i>Populus simonii</i>	Simon's Poplar	Early-mature	Exotic deciduous	39	45	12	9	Fair	Fair	Mod.C	11-20	Likely lower end of ULE.	17/06/2021	4.7	2.4	Towers - North	2	Yes
119	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	66	77	21	18	Fair	Fair	Mod.B	21-40		17/06/2021	7.9	3.0	Towers - North	3,2	Yes
120	<i>Casuarina glauca</i>	Swamp She-oak	Early-mature	Australian native	50	70	17	9	Fair to Poor	Fair	Mod.C	11-20	Reduced foliage density.	17/06/2021	6.0	2.8	Towers - North	3,2	Yes
121	<i>Casuarina cunninghamiana</i>	River She-oak	Early-mature	Australian native	35	45	13	11	Fair	Fair to Poor	Mod.C	21-40	Partly suppressed - crown bias east.	17/06/2021	4.2	2.4	Towers - North	3,2	Yes
122	<i>Casuarina glauca</i>	Swamp She-oak	Maturing	Australian native	72	95	18	12	Good	Fair	Mod.A	21-40	Crown to north.	17/06/2021	8.6	3.2	Towers - North	3,2	Yes
123	<i>Grevillea robusta</i>	Silky Oak	Semi-mature	Australian native	15	20	6	4	Fair	Fair	Low	>40		17/06/2021	2.0	1.7	Towers - North	1,3,2	No
124	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	58	64	17	12	Good	Fair	Mod.B	21-40	Slight canopy bias north self-correcting.	17/06/2021	7.0	2.7	Towers - North	1,3	Yes
125	<i>Eucalyptus leucoxylon</i>	Yellow Gum	Semi-mature	Victorian native	10	13	3	3	Fair	Fair	Low	21-40	Staked.	17/06/2021	2.0	1.5	Towers - North	1,3	No
126	<i>Eucalyptus melliodora</i>	Yellow Box	Semi-mature	Victorian native	10	14	3	2	Fair	Fair	Low	>40	Staked.	17/06/2021	2.0	1.5	Towers - North	1,3	No
127	<i>Eucalyptus melliodora</i>	Yellow Box	Semi-mature	Victorian native	12,8 @1	16	3	3	Fair	Fair	Low	>40		17/06/2021	2.0	1.5	Towers - North	3	No
128	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	70	77	20	16	Fair	Fair to Poor	Mod.C	11-20	Deadwood >50mm, over-extended limbs. Southern limbs removed, dense lower growth, upper canopy slightly sparse.	17/06/2021	8.4	3.0	Towers - North	1,3	Yes
129	<i>Corymbia citriodora</i>	Lemon-scented Gum	Maturing	Australian native	60	76	22	19	Fair	Fair	Mod.B	>40	Past branch failure to east.	17/06/2021	7.2	2.9	Towers - North	1,3	Yes
130	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	46	56	17	12	Fair	Fair	Mod.B	21-40		17/06/2021	5.5	2.6	Towers - North	3	Yes
131	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	39	47	15	11	Fair	Fair	Mod.B	>40		17/06/2021	4.7	2.4	Towers - North	3	Yes
132	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	54	62	15	13	Fair	Fair	Mod.B	21-40	Basal wounds, over-extended limbs. Slightly reduced foliage density.	17/06/2021	6.5	2.7	Towers - North	3	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
133	<i>Quercus robur</i>	English Oak	Semi-mature	Exotic deciduous	26	38	8	5	Fair to Poor	Fair to Poor	Low	6-10	Lopped. Inside chained off square planter box. Seems to have poor health/vigour. May be <i>Q. canariensis</i> ?	17/06/2021	3.1	2.2	Towers - North	3	No
134	<i>Eucalyptus camaldulensis</i>	River Red Gum	Semi-mature	Victorian native	44	58	15	17	Fair	Fair	Mod.B	>40	Acute forks.	17/06/2021	5.3	2.6	Towers - North	3	Yes
135	<i>Eucalyptus camaldulensis</i>	River Red Gum	Semi-mature	Victorian native	42	49	16	9	Fair to Poor	Fair	Mod.B	21-40	Reduced foliage density. NOTE: Could be <i>Eucalyptus</i> aff. <i>tereticornis</i> - different bud shape.	17/06/2021	5.0	2.5	Towers - North	3	Yes
136	<i>Eucalyptus melliodora</i>	Yellow Box	Early-mature	Victorian native	64	70	17	15	Fair	Fair	Mod.B	>40		17/06/2021	7.7	2.8	Towers - North	3	Yes
137	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	47	56	18	19	Fair	Fair	Mod.B	21-40		17/06/2021	5.6	2.6	Towers - North	3	Yes
138	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	52	55	17	21	Fair	Fair	Mod.B	21-40		17/06/2021	6.2	2.6	Towers - North	3	Yes
139	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	76	104	24	22	Fair	Fair	Mod.A	21-40		18/06/2021	9.1	3.4	Towers - North	3	Yes
140	<i>Casuarina cunninghamiana</i>	River She-oak	Maturing	Australian native	66	76	22	14	Fair to Poor	Fair	Mod.B	11-20	Reduced foliage density, lower canopy dead wood.	18/06/2021	7.9	2.9	Towers - North	3	Yes
141	<i>Pittosporum undulatum</i>	Sweet Pittosporum	Semi-mature	Victorian native	14,12,11	20	7	9	Fair	Fair to Poor	Low	11-20	Woody weed species.	18/06/2021	2.6	1.7	Towers - North	3	No
142	<i>Lophostemon confertus</i>	Brush Box	Early-mature	Australian native	41	45	11	12	Fair	Fair	Mod.B	21-40		18/06/2021	4.9	2.4	Towers - North	3	Yes
143	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	83	102	16	17	Fair	Fair	Mod.B	>40		18/06/2021	10.0	3.3	Towers - North	3	Yes
144	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	52	68	15	14	Fair	Fair	Mod.B	11-20		15/06/2021	6.2	2.8	Towers - North	3	Yes
145	<i>Eucalyptus polyanthemus</i>	Red Box	Early-mature	Victorian native	59	72	16	13	Fair	Fair	Mod.B	21-40		15/06/2021	7.1	2.9	Towers - North	3	Yes
146	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	55	60	15	17	Fair	Fair	Mod.B	21-40	Over-extended limbs to east over basketball court.	15/06/2021	6.6	2.7	Towers - North	3	Yes
147	<i>Casuarina cunninghamiana</i>	River She-oak	Early-mature	Australian native	41	48	16	9	Fair	Fair	Mod.B	21-40		15/06/2021	4.9	2.4	Towers - North	3	Yes
148	<i>Eucalyptus polyanthemus</i>	Red Box	Early-mature	Victorian native	47	54	16	13	Fair	Fair	Mod.B	21-40		15/06/2021	5.6	2.6	Towers - North	3	Yes
149	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	84	98	21	18	Fair	Fair to Poor	Mod.B	11-20	Acute forks.	18/06/2021	10.1	3.3	Towers - North	3	Yes
150	<i>Eucalyptus viminalis</i>	Manna Gum	Maturing	Victorian native	83	85	18	13	Fair to Poor	Fair to Poor	Mod.C	6-10	Deadwood >50mm, main leader dead, over-extended limbs. Dense and healthy lower canopy, crown reduce.	18/06/2021	10.0	3.1	Towers - North	3	Yes
151	<i>Pyrus calleryana</i>	Callery's Pear	Semi-mature	Exotic deciduous	20	22	4	6	Fair	Fair	Mod.C	21-40		18/06/2021	2.4	1.8	Towers - North	3	No
152	<i>Pyrus calleryana</i>	Callery's Pear	Semi-mature	Exotic deciduous	20	22	5	6	Fair	Fair	Mod.C	21-40		18/06/2021	2.4	1.8	Towers - North	3	No
153	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	46	54	16	12	Fair	Fair	Mod.B	11-20		15/06/2021	5.5	2.6	Towers - North (Multistorey Parking)	3	Yes
154	<i>Eucalyptus camaldulensis</i>	River Red Gum	Semi-mature	Victorian native	39	45	16	12	Fair	Fair	Mod.B	>40	Basal wounds.	15/06/2021	4.7	2.4	Towers - North (Multistorey Parking)	3	Yes
155	<i>Lophostemon confertus</i>	Brush Box	Semi-mature	Australian native	32	39	9	11	Fair	Fair to Poor	Mod.B	21-40		15/06/2021	3.8	2.2	Towers - North (Multistorey Parking)	3	No
156	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	52	75	22	11	Fair to Poor	Fair to Poor	Mod.C	11-20	Co-dominant stems, included bark, low live canopy ratio.	18/06/2021	6.2	2.9	Towers - North (Multistorey Parking)	3	Yes
157	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	63	70	18	14	Fair	Fair	Mod.B	11-20		18/06/2021	7.6	2.8	Towers - North (Multistorey Parking)	3	Yes
158	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	59	67	16	15	Fair	Fair	Mod.B	11-20		15/06/2021	7.1	2.8	Towers - North (Multistorey Parking)	3	Yes
159	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	53	59	17	11	Fair	Fair	Mod.B	11-20		15/06/2021	6.4	2.7	Towers - North (Multistorey Parking)	3	Yes
160	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	57	63	17	16	Fair	Fair	Mod.B	11-20		15/06/2021	6.8	2.7	Towers - North (Multistorey Parking)	3	Yes
161	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	53	66	20	18	Fair to Poor	Fair to Poor	Mod.C	6-10		15/06/2021	6.4	2.8	Towers - North (Multistorey Parking)	3	Yes
162	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	55	65	19	17	Fair	Fair	Mod.C	11-20	Likely lower end of ULE.	18/06/2021	6.6	2.8	Towers - North	3	Yes
163	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	66	83	18	15	Fair	Fair to Poor	Mod.C	11-20	Likely lower end of ULE. Basal wound/hollow, 1x past branch failure.	18/06/2021	7.9	3.1	Towers - North	3	Yes
164	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	51	56	18	12	Fair	Fair	Mod.C	11-20	Likely lower end of ULE. 1x branch failure to south, overextended lower canopy over basketball court.	18/06/2021	6.1	2.6	Towers - North	3	Yes
165	<i>Grevillea robusta</i>	Silky Oak	Semi-mature	Australian native	15	18	6	4	Fair	Fair	Low	>40		18/06/2021	2.0	1.6	Towers - North	3	No
166	<i>Grevillea robusta</i>	Silky Oak	Semi-mature	Australian native	18	23	7	5	Fair	Fair	Mod.C	>40		18/06/2021	2.2	1.8	Towers - North	3	No
167	<i>Eucalyptus melliodora</i>	Yellow Box	Semi-mature	Victorian native	17,15,12	29	7	5	Fair to Poor	Fair to Poor	Mod.C	21-40		15/06/2021	3.1	2.0	Towers - North	3	Yes
168	<i>Ulmus parvifolia</i>	Chinese Elm	Semi-mature	Exotic deciduous	13,13,9	23	4	6	Fair	Fair to Poor	Low	21-40		18/06/2021	2.5	1.8	Towers - North	3	No
169	<i>Casuarina cunninghamiana</i>	River She-oak	Early-mature	Australian native	43	46	16	12	Fair	Fair	Mod.B	21-40		18/06/2021	5.2	2.4	Towers - North	3	Yes
170	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	34	40	17	15	Fair to Poor	Fair	Mod.C	6-10		15/06/2021	4.1	2.3	Towers - North	3	Yes
171	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	96	109	20	26	Good	Fair	High	11-20	Past branch failures to north. Overextended limbs to west.	18/06/2021	11.5	3.4	Towers - North	3	Yes
172	<i>Ulmus parvifolia</i>	Chinese Elm	Semi-mature	Exotic deciduous	19	24	7	8	Fair	Fair	Mod.C	>40		18/06/2021	2.3	1.8	Towers - North	3	No
173	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	91	99	18	20	Fair to Poor	Fair to Poor	Mod.C	6-10	Deadwood >50mm. Moderate dieback, fungal bracket on trunk to south.	18/06/2021	10.9	3.3	Towers - North	3	Yes
174	<i>Corymbia citriodora</i>	Lemon-scented Gum	Early-mature	Australian native	48	57	17	15	Poor	Fair to Poor	Low	6-10	Major dieback.	18/06/2021	5.8	2.6	Towers - North	3	Yes
175	<i>Corymbia citriodora</i>	Lemon-scented Gum	Early-mature	Australian native	55	69	19	12	Fair	Fair to Poor	Mod.C	11-20	Large gaps in canopy.	18/06/2021	6.6	2.8	Towers - North	3	Yes
176	<i>Lophostemon confertus</i>	Brush Box	Early-mature	Australian native	50	60	12	8	Fair	Fair	Mod.B	21-40		18/06/2021	6.0	2.7	Towers - North	3	Yes
177	<i>Quercus robur</i>	English Oak	Semi-mature	Exotic deciduous	8	12	6	5	Fair	Fair	Low	>40		15/06/2021	2.0	1.5	Towers - North	3	No
178	<i>Agonis flexuosa</i>	Willow Myrtle	Early-mature	Australian native	28,26,17	74	6	8	Fair	Fair	Mod.C	11-20	Partly suppressed - crown bias north.	18/06/2021	5.0	2.9	Towers - North	3	Yes
179	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	64	72	16	9	Fair	Fair	Mod.B	>40		15/06/2021	7.7	2.9	Towers - North	3	Yes
180	<i>Corymbia citriodora</i>	Lemon-scented Gum	Maturing	Australian native	66	79	28	15	Fair	Fair	Mod.A	21-40		18/06/2021	7.9	3.0	Towers - North	3	Yes
181	<i>Callistemon salignus</i>	Willow Bottlebrush	Early-mature	Australian native	20	24	5	4	Fair	Fair	Mod.C	11-20	Previously lopped.	15/06/2021	2.4	1.8	Towers - North	3	No
182	<i>Syzygium australe</i>	Scrub Cherry	Semi-mature	Australian native	13,11	21	6	4	Fair	Fair	Mod.C	21-40		15/06/2021	2.0	1.7	Towers - North	3	No
183	<i>Cinnamomum camphora</i>	Camphor Laurel	Semi-mature	Exotic evergreen	25	36	7	6	Fair	Fair	Mod.C	>40		15/06/2021	3.0	2.2	Towers - North	3	No
184	<i>Acacia melanoxylon</i>	Blackwood	Semi-mature	Victorian native	15	18	5	2	Fair	Fair	Mod.C	21-40		15/06/2021	2.0	1.6	Towers - North	3	No
185	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	87	91	27	18	Fair to Poor	Fair to Poor	Mod.C	11-20	Deadwood >50mm. Remove deadwood to west. Reduction pruning done in past. Decay likely in trunk.	18/06/2021	10.4	3.2	Towers - North	3	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
186	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Early-mature	Australian native	9,9,2,2	35	5	3	Fair	Fair	Low	11-20	Lost main leader.	15/06/2021	2.0	2.1	Towers - North	3	No
187	<i>Acacia sp.</i>	Wattle Tree	Maturing	Australian native	17,13	36	8	6	Poor	Poor	Low	1-5	Basal decay, basal wounds, deadwood >50mm, declining, past branch failure.	15/06/2021	2.6	2.2	Towers - North	3	No
188	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	41	47	16	10	Fair	Fair	Mod.B	>40		15/06/2021	4.9	2.4	Towers - North	3	Yes
189	<i>Syzygium paniculatum</i>	Magenta Cherry	Semi-mature	Australian native	19,12	28	6	5	Fair	Fair	Mod.C	>40		15/06/2021	2.7	1.9	Towers - North	3	No
190	<i>Syzygium paniculatum</i>	Magenta Cherry	Semi-mature	Australian native	12,10,8	18	6	4	Fair	Fair	Mod.C	>40	Basal wound.	15/06/2021	2.1	1.6	Towers - North	3	No
191	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	38	45	15	10	Fair	Fair	Mod.B	>40	Past powerline clearance. Trunk wounds.	15/06/2021	4.6	2.4	Towers - North	3	Yes
192	<i>Syzygium paniculatum</i>	Magenta Cherry	Semi-mature	Australian native	13	15	6	4	Fair	Fair	Mod.C	>40		15/06/2021	2.0	1.5	Towers - North	3	No
193	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	36	42	15	8	Fair	Fair	Mod.B	>40		15/06/2021	4.3	2.3	Towers - North	3	Yes
194	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	27	33	12	8	Fair	Fair	Mod.B	>40	Past powerline clearance. Branch wounds.	15/06/2021	3.2	2.1	Towers - North	3	No
195	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	45	53	18	10	Fair	Fair	Mod.B	>40	Past powerline clearance.	15/06/2021	5.4	2.5	Towers - North	3	Yes
196	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	50	59	18	10	Fair	Fair	Mod.B	>40	Past powerline clearance.	15/06/2021	6.0	2.7	Towers - North	3	Yes
197	<i>Ulmus parvifolia</i>	Chinese Elm	Early-mature	Exotic deciduous	32	37	10	10	Fair	Fair	Mod.B	>40	Southerly canopy bias.	15/06/2021	3.8	2.2	Towers - North	3	No
198	<i>Syzygium paniculatum</i>	Magenta Cherry	Early-mature	Australian native	15,13,12	26	7	5	Good	Fair	Mod.C	>40		15/06/2021	2.8	1.9	Towers - North	3	Yes
199	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	54	65	22	15	Fair	Fair	Mod.B	21-40		18/06/2021	6.5	2.8	Towers - North	3	Yes
200	<i>Eucalyptus cladocalyx</i>	Sugar Gum	Semi-mature	Australian native	29	33	9	4	Fair	Fair	Mod.C	>40		15/06/2021	3.5	2.1	Towers - North	3	No
201	<i>Eucalyptus melliodora</i>	Yellow Box	Early-mature	Victorian native	39	49	15	8	Fair	Fair	Mod.B	>40		15/06/2021	4.7	2.5	Towers - North	3	Yes
202	<i>Eucalyptus cladocalyx</i>	Sugar Gum	Maturing	Australian native	74	84	28	20	Fair	Fair	Mod.B	11-20		18/06/2021	8.9	3.1	Towers - North	3	Yes
203	<i>Eucalyptus cladocalyx</i>	Sugar Gum	Maturing	Australian native	70	77	32	18	Fair	Fair to Poor	Mod.C	6-10	Limited inner canopy.	18/06/2021	8.4	3.0	Towers - North	3	Yes
204	<i>Corymbia ficifolia</i>	Red-flowering Gum	Semi-mature	Australian native	28	36	10	7	Fair	Fair	Mod.C	21-40	Southern canopy cleared for building.	15/06/2021	3.4	2.2	Towers - North	3	No
205	<i>Eriobotrya japonica</i>	Loquat	Semi-mature	Exotic evergreen	13,11	18	5	3	Fair	Fair	Low	11-20		15/06/2021	2.0	1.6	Towers - North	3	No
206	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	25	31	10	6	Fair	Fair	Mod.B	>40	Past branch failure.	15/06/2021	3.0	2.0	Towers - North	3	No
207	<i>Casuarina glauca</i>	Swamp She-oak	Early-mature	Australian native	43	54	18	6	Fair	Fair	Mod.B	21-40		18/06/2021	5.2	2.6	Towers - North	3	Yes
208	<i>Casuarina glauca</i>	Swamp She-oak	Semi-mature	Australian native	26	38	15	6	Fair	Fair to Poor	Mod.C	6-10	Past branch failure.	18/06/2021	3.1	2.2	Towers - North (Multistorey Parking)	3	No
209	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	43	54	18	8	Fair	Fair to Poor	Mod.C	6-10	Past branch failure. X3.	18/06/2021	5.2	2.6	Towers - North (Multistorey Parking)	3	Yes
210	<i>Grevillea robusta</i>	Silky Oak	Early-mature	Australian native	32	39	15	6	Fair to Poor	Fair	Mod.C	>40	Minor dieback.	15/06/2021	3.8	2.2	Towers - North (Multistorey Parking)	3	No
211	<i>Pittosporum undulatum</i>	Sweet Pittosporum	Early-mature	Victorian native	40	45	9	5	Fair	Fair	Low	11-20	Woody weed species.	15/06/2021	4.8	2.4	Towers - North	3	Yes
212	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	84	93	25	18	Good	Fair	High	11-20	Tight space with pavement heaving, overextending limbs to south, however outstanding size.	18/06/2021	10.1	3.2	Towers - North	3	Yes
213	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	57	64	25	14	Fair	Fair	Mod.B	21-40	Canopy cleared from building.	15/06/2021	6.8	2.7	Towers - North (Multistorey Parking)	3	Yes
214	<i>Melaleuca styphelioides</i>	Prickly-leaved Paperbark	Semi-mature	Australian native	15,14,12,12	42	9	11	Fair to Poor	Poor	Low	6-10		15/06/2021	3.2	2.3	Towers - North	2	Yes
215	<i>Eucalyptus leucoxylon</i>	Yellow Gum	Semi-mature	Victorian native	18	20	9	6	Fair to Poor	Poor	Low	6-10	Lopped, suppressed.	15/06/2021	2.2	1.7	Towers - North	2	No
216	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Early-mature	Australian native	14,13,13	35	4	7	Fair to Poor	Poor	Low	6-10		15/06/2021	2.8	2.1	Towers - North	2	Yes
217	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Maturing	Australian native	21,16	37	9	7	Poor	Fair to Poor	Low	1-5		15/06/2021	3.2	2.2	Towers - North	2	No
218	<i>Callistemon salignus</i>	Willow Bottlebrush	Maturing	Australian native	30	34	11	13	Fair	Fair to Poor	Mod.C	6-10		15/06/2021	3.6	2.1	Towers - North	2	No
219	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Early-mature	Australian native	8,6,6	24	5	4	Fair to Poor	Poor	Low	6-10		15/06/2021	2.0	1.8	Towers - North	2	No
220	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Maturing	Australian native	22,18	34	9	11	Fair	Fair to Poor	Mod.C	6-10	2 stems from base, one stem over footpath	15/06/2021	3.4	2.1	Towers - North	2	Yes
221	<i>Eucalyptus camaldulensis</i>	River Red Gum	Semi-mature	Victorian native	43	54	13	14	Fair	Fair	Mod.B	21-40	Minor dieback, over-extended limbs. Reduce overextended limbs.	15/06/2021	5.2	2.6	Towers - North	2	Yes
222	<i>Quercus palustris</i>	Pin Oak	Semi-mature	Exotic deciduous	27	33	7	7	Fair	Fair to Poor	Mod.C	11-20	Trunk kink.	15/06/2021	3.2	2.1	Towers - North	2	No
223	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	70	85	28	19	Fair	Fair	Mod.A	11-20	Acute forks, over-extended limbs developing, reduce over-extended limbs.	15/06/2021	8.4	3.1	Towers - North	2	Yes
224	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	36	42	14	12	Poor	Fair	Low	6-10	Over-extended limbs, reduced foliage density, suppressed.	15/06/2021	4.3	2.3	Towers - North	2	Yes
225	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	62	80	26	19	Fair	Fair	Mod.A	11-20	Acute forks. Roots exposed by foot traffic. Sooty mold and lerp.	15/06/2021	7.4	3.0	Towers - North	2	Yes
226	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	39	46	10	11	Fair	Fair	Mod.B	21-40		15/06/2021	4.7	2.4	Towers - North	2	Yes
227	<i>Quercus palustris</i>	Pin Oak	Semi-mature	Exotic deciduous	29	38	8	9	Fair	Fair to Poor	Mod.C	21-40		15/06/2021	3.5	2.2	Towers - North	2	No
228	<i>Eucalyptus botryoides</i>	Southern Mahogany	Maturing	Victorian native	69	80	17	16	Good	Fair to Poor	Mod.B	11-20	Congested primary union, deadwood >50mm, over-extended limbs developing.	15/06/2021	8.3	3.0	Towers - North	2	Yes
229	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	33	40	12	11	Dead	Poor	Very Low	<1		15/06/2021	4.0	2.3	Towers - North	2	Yes
230	<i>Callistemon 'Kings Park Special'</i>	King's Park Special Bottlebrush	Early-mature	Australian native	15,14	25	7	6	Fair	Fair to Poor	Mod.C	11-20	Acute forks.	15/06/2021	2.5	1.8	Towers - North	2	No
231	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Semi-mature	Exotic deciduous	26	34	8	10	Fair	Fair	Mod.B	21-40	Deadwood, partly suppressed - crown bias south.	17/06/2021	3.1	2.1	Towers - North	2	No
232	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Semi-mature	Exotic deciduous	15,14	23	7	7	Fair	Fair to Poor	Mod.C	11-20	Acute forks.	15/06/2021	2.5	1.8	Towers - North	2	No
233	<i>Casuarina glauca</i>	Swamp She-oak	Early-mature	Australian native	48	58	20	10	Fair	Fair	Mod.B	11-20	Suckering (typical of spp.)	15/06/2021	5.8	2.6	Towers - North (Multistorey Parking)	2	Yes
234	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	37	45	13	13	Fair	Fair	Mod.B	21-40	Partly suppressed - crown bias south.	17/06/2021	4.4	2.4	Towers - North (Multistorey Parking)	2	Yes
235	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	31	36	10	11	Fair to Poor	Fair	Mod.B	21-40	Deadwood, minor dieback, partly suppressed - crown bias north.	17/06/2021	3.7	2.2	Towers - North (Multistorey Parking)	2	No
236	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	33	40	12	12	Fair	Fair	Mod.B	21-40	Deadwood.	17/06/2021	4.0	2.3	Towers - North (Multistorey Parking)	2	Yes
237	<i>Fraxinus angustifolia subsp. angustifolia</i>	Desert Ash	Early-mature	Exotic deciduous	37	47	11	9	Fair	Fair to Poor	Mod.B	11-20	Over-extended limbs, partly suppressed - crown bias north, pruned for carpark clearance.	15/06/2021	4.4	2.4	Towers - North (Multistorey Parking)	2	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
238	<i>Agonis flexuosa</i>	Willow Myrtle	Semi-mature	Australian native	17	21	5	6	Good	Fair	Low	21-40		17/06/2021	2.0	1.7	Towers - North (Multistorey Parking)	2	No
239	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	36	39	12	13	Fair	Fair	Mod.B	>40	Deadwood.	17/06/2021	4.3	2.2	Towers - North (Multistorey Parking)	2	No
240	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Semi-mature	Exotic deciduous	27	34	8	7	Fair	Fair	Mod.B	21-40	Partly suppressed - crown bias north.	17/06/2021	3.2	2.1	Towers - North (Multistorey Parking)	2	No
241	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	34	45	11	13	Fair	Fair to Poor	Mod.B	>40	Deadwood, over-extended limbs, partly suppressed - crown bias east and west.	17/06/2021	4.1	2.4	Towers - North (Multistorey Parking)	2	Yes
242	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	56	68	19	14	Good	Good	Mod.A	21-40		17/06/2021	6.7	2.8	Towers - North (Multistorey Parking)	2	Yes
243	<i>Populus simonii</i>	Simon's Poplar	Early-mature	Exotic deciduous	31	34	10	4	Poor	Fair to Poor	Low	1-5	Declining, main leader dead.	15/06/2021	3.7	2.1	Towers - North (Multistorey Parking)	2	No
244	<i>Populus simonii</i>	Simon's Poplar	Early-mature	Exotic deciduous	37	41	14	6	Fair	Fair to Poor	Mod.C	11-20	Likely lower end of ULE. Acute forks, trunk wounds.	17/06/2021	4.4	2.3	Towers - North (Multistorey Parking)	2	Yes
245	<i>Populus simonii</i>	Simon's Poplar	Early-mature	Exotic deciduous	38	40	12	6	Fair to Poor	Poor	Low	1-5	Abnormal lean, deadwood, declining, mower damage to surface roots on tension side.	17/06/2021	4.6	2.3	Towers - North (Multistorey Parking)	2	Yes
246	<i>Eucalyptus mannifera</i>	Brittle Gum	Early-mature	Australian native	53	58	14	15	Fair	Fair	Mod.B	11-20	Crown bias south. Canopy overhanging carpark.	17/06/2021	6.4	2.6	Towers - North (Multistorey Parking)	2	Yes
247	<i>Eucalyptus mannifera</i>	Brittle Gum	Maturing	Australian native	42	48	13	9	Fair	Fair	Mod.B	11-20	Partly suppressed - crown bias north.	17/06/2021	5.0	2.4	Towers - North (Multistorey Parking)	2	Yes
248	<i>Callistemon viminalis</i>	Weeping Bottlebrush	Early-mature	Australian native	18	20	4	3	Fair	Fair to Poor	Low	1-5	Lost main leader. Crown bias north.	17/06/2021	2.2	1.7	Towers - North (Multistorey Parking)	2	No
249	<i>Casuarina glauca</i>	Swamp She-oak	Maturing	Australian native	63	76	18	15	Fair	Fair	Mod.B	11-20	Suckering (typical of spp.)	17/06/2021	7.6	2.9	Towers - North (Multistorey Parking)	2	Yes
250	<i>Melaleuca bracteata</i>	Black Tea-tree	Maturing	Australian native	27,22	38	7	14	Good	Fair to Poor	Low	6-10	Partly suppressed - crown bias east. Shrub. 1 stem lopped.	17/06/2021	4.2	2.2	Towers - North (Multistorey Parking)	2	Yes
251	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	46	56	14	15	Fair	Fair	Mod.B	21-40	Deadwood.	17/06/2021	5.5	2.6	Towers - North (Multistorey Parking)	2	Yes
252	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	30	38	12	10	Fair to Poor	Fair to Poor	Mod.C	21-40	Sooty mould and lerp. Seasonal?	17/06/2021	3.6	2.2	Towers - North (Multistorey Parking)	2	No
253	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	44	47	14	13	Fair	Fair to Poor	Mod.C	6-10	Acute forks. Narrow space.	17/06/2021	5.3	2.4	Towers - North (Multistorey Parking)	2	Yes
254	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	33	36	8	9	Poor	Poor	Very Low	1-5	Lopped, suppressed.	17/06/2021	4.0	2.2	Towers - North (Multistorey Parking)	2	No
255	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	37	43	14	11	Fair to Poor	Fair	Mod.C	6-10	Reduced foliage density. Narrow space.	17/06/2021	4.4	2.3	Towers - North (Multistorey Parking)	2	Yes
256	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	44	47	12	9	Fair	Fair to Poor	Mod.C	6-10	Narrow space.	17/06/2021	5.3	2.4	Towers - North (Multistorey Parking)	2	Yes
257	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	52	58	8	1	Poor	Poor	Very Low	1-5	Lopped	17/06/2021	6.2	2.6	Towers - North (Multistorey Parking)	2	Yes
258	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	52	58	8	1	Poor	Poor	Very Low	1-5	Lopped	17/06/2021	6.2	2.6	Towers - North (Multistorey Parking)	2	Yes
259	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	52	58	8	1	Poor	Poor	Very Low	1-5	Lopped	17/06/2021	6.2	2.6	Towers - North (Multistorey Parking)	3,2	Yes
260	<i>Populus Xcanadensis</i>	Grey Poplar	Maturing	Exotic deciduous	64	70	21	20	Fair	Fair to Poor	Mod.C	6-10	Over-extended limbs. Numerous past failures	17/06/2021	7.7	2.8	Towers - North (Multistorey Parking)	3,2	Yes
261	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	51	59	13	9	Fair to Poor	Fair	Mod.C	6-10	Moderate amount of deadwood >50mm. Tending to Poor health	15/06/2021	6.1	2.7	Towers - North (Multistorey Parking)	3	Yes
262	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	97	107	19	25	Fair	Fair	Mod.B	11-20	Large tree in restricted growing space but only minor infrastructure damage. Two leaders appear to have fused. Significant in landscape but exhibiting slightly reduced foliage density to north. Unclear if tree is on DOH or neighbouring land.	15/06/2021	11.6	3.4	Towers - North (Multistorey Parking)	3	Yes
263	<i>Casuarina cunninghamiana</i>	River She-oak	Maturing	Australian native	66	71	16	14	Good	Fair	Mod.A	11-20		15/06/2021	7.9	2.9	Towers - North (Multistorey Parking)	3	Yes
264	<i>Eucalyptus polyanthemus</i>	Red Box	Early-mature	Victorian native	50	64	13	16	Fair	Fair	Mod.B	21-40		15/06/2021	6.0	2.7	Towers - North (Multistorey Parking)	3	Yes
265	<i>Eucalyptus polyanthemus</i>	Red Box	Semi-mature	Victorian native	39	45	10	10	Fair to Poor	Fair	Mod.C	21-40	Reduced foliage density.	15/06/2021	4.7	2.4	Towers - North (Multistorey Parking)	3	Yes
266	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	63	67	13	15	Good	Fair	Mod.B	11-20	Upper crown swoop.	15/06/2021	7.6	2.8	Towers - North (Multistorey Parking)	3	Yes
267	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	45	51	18	14	Fair	Fair	Mod.B	11-20		15/06/2021	5.4	2.5	Towers - North (Multistorey Parking)	2	Yes
268	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	53	60	28	13	Fair	Fair	Mod.B	11-20	Basal wounds. Sound timber.	15/06/2021	6.4	2.7	Towers - North (Multistorey Parking)	2	Yes
269	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	42	48	27	11	Fair	Fair	Mod.B	11-20		15/06/2021	5.0	2.4	Towers - North (Multistorey Parking)	2	Yes
270	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	50	60	25	14	Fair	Fair	Mod.B	11-20		17/06/2021	6.0	2.7	Towers - North (Multistorey Parking)	2	Yes
271	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	40	47	26	11	Fair	Fair to Poor	Mod.B	11-20	All branches above 15m.	15/06/2021	4.8	2.4	Towers - North (Multistorey Parking)	2	Yes
272	<i>Corymbia citriodora</i>	Lemon-scented Gum	Maturing	Australian native	53	62	29	13	Fair	Poor	Low	6-10	Low live crown ratio, lopped, past limb failure. Heavily pruned for carpark clearance.	17/06/2021	6.4	2.7	Towers - North (Multistorey Parking)	2	Yes
273	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	10	12	7	2	Poor	Fair	Low	11-20	Chlorotic foliage.	18/06/2021	2.0	1.5	Towers - North (Multistorey Parking)	2	No
274	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	13	16	7	4	Fair to Poor	Fair	Low	21-40	Sooty mould and lerp.	18/06/2021	2.0	1.5	Towers - North (Multistorey Parking)	2	No
275	<i>Melaleuca styphelioides</i>	Prickly-leaved Paperbark	Early-mature	Australian native	24,20	42	13	5	Fair	Fair	Mod.B	11-20	Partly suppressed - crown bias west.	18/06/2021	3.7	2.3	Towers - North (Multistorey Parking)	2,4	Yes
276	<i>Melaleuca styphelioides</i>	Prickly-leaved Paperbark	Semi-mature	Australian native	15	20	8	4	Fair	Fair	Low	6-10	Suppressed.	18/06/2021	2.0	1.7	Towers - North (Multistorey Parking)	2,4	No
277	<i>Melaleuca styphelioides</i>	Prickly-leaved Paperbark	Early-mature	Australian native	24,15	38	12	6	Fair	Fair	Mod.C	11-20	Partly suppressed - crown bias northwest.	18/06/2021	3.4	2.2	Towers - North (Multistorey Parking)	2,4	No
278	<i>Casuarina cunninghamiana</i>	River She-oak	Early-mature	Australian native	48	54	18	10	Fair	Fair	Mod.B	11-20	Partly suppressed - crown bias west	18/06/2021	5.8	2.6	Towers - North (Multistorey Parking)	2,4	Yes
279	<i>Casuarina cunninghamiana</i>	River She-oak	Early-mature	Australian native	42	52	18	9	Fair	Fair	Mod.B	11-20	Partly suppressed - crown bias.	18/06/2021	5.0	2.5	Towers - North (Multistorey Parking)	2,4	Yes
280	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Maturing	Australian native	68	72	18	10	Fair	Fair	Mod.A	11-20	Adjacent to school boundary.	18/06/2021	8.2	2.9	Towers - North (Multistorey Parking)	4	Yes
281	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	47	50	13	5	Fair to Poor	Fair to Poor	Mod.C	11-20	Past branch failure, partly suppressed - crown bias east.	17/06/2021	5.6	2.5	Towers - North (Multistorey Parking)	4	Yes
282	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	41	50	13	6	Fair	Fair to Poor	Mod.C	11-20	Partly suppressed - crown bias south, narrow planting area	17/06/2021	4.9	2.5	Towers - North (Multistorey Parking)	4	Yes
283	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	50	61	17	6	Fair	Fair to Poor	Mod.C	6-10	Recent limb failure over multistorey carpark. Remaining apex exposed.	17/06/2021	6.0	2.7	Towers - North (Multistorey Parking)	4	Yes
284	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	106	120	21	15	Fair	Fair	Mod.B	11-20	Deadwood >50mm to north, remove deadwood within 6 months. Remarkable size given location, although ultimately outsized. Appropriate reduction pruning carried out. Minor heaving of pavement and retaining ledge.	17/06/2021	12.7	3.6	Towers - North (Multistorey Parking)	2,4	Yes
285	<i>Agonis flexuosa</i>	Willow Myrtle	Early-mature	Australian native	52	60	13	15	Fair	Fair to Poor	Mod.C	11-20	Acute forks. As is typical of spp. Foliage slightly sparse to south.	17/06/2021	6.2	2.7	Towers - North (Multistorey Parking)	2	Yes
286	<i>Corymbia citriodora</i>	Lemon-scented Gum	Maturing	Australian native	70	88	20	20	Fair	Fair to Poor	Mod.B	11-20	Partly suppressed - crown bias west.	17/06/2021	8.4	3.1	Towers - North (Multistorey Parking)	2	Yes
287	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	61	72	20	10	Fair to Poor	Poor	Mod.C	6-10	Previous failures, top heavy, poor form.	17/06/2021	7.3	2.9	Towers - North (Multistorey Parking)	2	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
288	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	72	83	20	17	Good	Fair	Mod.A	11-20	Excellent canopy density and form; species of this size usually develops fungal decay but no external evidence visible.	18/06/2021	8.6	3.1	Community Health Centre	2	Yes
289	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	77	88	17	20	Good	Fair	High	>40		18/06/2021	9.2	3.1	Community Health Centre	2	Yes
290	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	68	74	23	21	Good	Fair	Mod.A	11-20	Deadwood >50mm, over-extended limbs.	15/06/2021	8.2	2.9	Community Health Centre	2	Yes
291	<i>Casuarina cunninghamiana</i>	River She-oak	Semi-mature	Australian native	17	20	10	9	Fair to Poor	Fair to Poor	Mod.C	6-10		15/06/2021	2.0	1.7	Community Health Centre	2	No
292	<i>Casuarina cunninghamiana</i>	River She-oak	Semi-mature	Australian native	13	17	6	4	Fair to Poor	Fair	Low	11-20		18/06/2021	2.0	1.6	Community Health Centre	2	No
293	<i>Casuarina cunninghamiana</i>	River She-oak	Maturing	Australian native	60	78	16	14	Fair	Fair	Mod.B	21-40		17/06/2021	7.2	3.0	Community Health Centre	2	Yes
294	<i>Pyrus calleryana</i>	Callery's Pear	Semi-mature	Exotic deciduous	15	20	6	6	Fair	Fair	Mod.C	21-40		18/06/2021	2.0	1.7	Community Health Centre	2	No
295	<i>Pyrus calleryana</i>	Callery's Pear	Semi-mature	Exotic deciduous	15	17	6	5	Fair	Fair	Mod.C	21-40		18/06/2021	2.0	1.6	Community Health Centre	2	No
296	<i>Pyrus calleryana</i>	Callery's Pear	Semi-mature	Exotic deciduous	22	25	7	7	Fair	Fair	Mod.B	21-40		18/06/2021	2.6	1.8	Community Health Centre	2	No
297	<i>Pyrus calleryana</i>	Callery's Pear	Semi-mature	Exotic deciduous	16	19	7	6	Fair	Fair	Mod.C	21-40		18/06/2021	2.0	1.6	Community Health Centre	2	No
298	<i>Pyrus calleryana</i>	Callery's Pear	Semi-mature	Exotic deciduous	17	20	7	7	Fair	Fair	Mod.C	21-40		18/06/2021	2.0	1.7	Community Health Centre	2	No
299	<i>Eucalyptus leucoxylon subsp. megalocarpa</i>	Large-fruited Yellow Gum	Semi-mature	Australian native	17	22	7	9	Fair	Fair to Poor	Mod.C	11-20	Wide angled union, in asphalt cutout.	18/06/2021	2.0	1.8	Community Health Centre	2	No
300	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	Semi-mature	Australian native	13	16	4	3	Fair	Fair	Low	11-20		18/06/2021	2.0	1.5	Community Health Centre	2	No
301	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	Semi-mature	Australian native	10	13	4	2	Fair to Poor	Fair	Low	6-10		18/06/2021	2.0	1.5	Community Health Centre	2	No
302	<i>Acacia melanoxylon</i>	Blackwood	Semi-mature	Victorian native	12	15	4	3	Good	Fair	Low	11-20		18/06/2021	2.0	1.5	Community Health Centre	2	No
303	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	Semi-mature	Australian native	8	10	4	2	Fair to Poor	Fair	Low	6-10		18/06/2021	2.0	1.5	Community Health Centre	2	No
304	<i>Acacia melanoxylon</i>	Blackwood	Semi-mature	Victorian native	12	15	4	3	Good	Fair	Low	11-20		18/06/2021	2.0	1.5	Community Health Centre	2	No
305	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	Semi-mature	Australian native	13	16	4	3	Fair	Fair	Low	11-20		18/06/2021	2.0	1.5	Community Health Centre	2	No
306	<i>Eucalyptus leucoxylon subsp. megalocarpa</i>	Large-fruited Yellow Gum	Early-mature	Australian native	23	27	6	5	Good	Fair	Mod.C	>40	Minor galls but dense canopy.	18/06/2021	2.8	1.9	Community Health Centre	2	No
307	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Maturing	Australian native	62	73	20	13	Fair to Poor	Fair	Mod.B	11-20	Partly suppressed - crown bias north, dieback to west.	18/06/2021	7.4	2.9	Community Health Centre	2	Yes
308	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Maturing	Australian native	40	46	15	9	Fair to Poor	Fair to Poor	Mod.C	11-20	Suppressed.	18/06/2021	4.8	2.4	Community Health Centre	2	Yes
309	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	73	80	22	13	Fair	Fair to Poor	Mod.B	11-20	Large limb wound to north.	18/06/2021	8.8	3.0	Community Health Centre	2	Yes
310	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	77	91	19	14	Fair	Fair	Mod.B	11-20		18/06/2021	9.2	3.2	Community Health Centre	2	Yes
311	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	30	34	11	8	Fair	Fair to Poor	Mod.C	11-20	Partly suppressed - crown bias south towards carpark.	18/06/2021	3.6	2.1	Community Health Centre	2,4	No
312	<i>Eucalyptus sp.</i>	Gum Tree	Semi-mature	Australian native	13	16	4	2	Fair	Fair to Poor	Low	6-10	Too close to awning, <i>Corymbia ficifolia</i> to rear under awning, even less suited.	18/06/2021	2.0	1.5	Community Health Centre	2,4	No
313	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Semi-mature	Australian native	21	39	8	5	Good	Fair to Poor	Mod.C	21-40	Acute forks. Good potential to be Mod B	18/06/2021	2.5	2.2	Community Health Centre	2,4	No
314	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	45	53	20	10	Fair	Fair	Mod.B	11-20	In Health Centre carpark, adjacent to school boundary. Partly suppressed - crown bias west. Sooty mould/lerp.	18/06/2021	5.4	2.5	Community Health Centre	2,4	Yes
315	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	59	68	21	15	Fair	Fair	Mod.A	21-40	In Health Centre carpark, adjacent to school boundary. Ascending branches. Developing heavy canopy over driveway.	18/06/2021	7.1	2.8	Community Health Centre	2,4	Yes
316	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	10,3	16	5	3	Fair to Poor	Poor	Low	1-5	In Health Centre carpark, adjacent to school boundary. Basal wound.	18/06/2021	2.0	1.5	Community Health Centre	2,4	No
317	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	18	22	6	5	Fair	Fair	Low	11-20	In Health Centre carpark, adjacent to school boundary.	18/06/2021	2.2	1.8	Community Health Centre	2,4	No
318	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	24	30	9	7	Fair	Fair to Poor	Mod.C	11-20	In Health Centre carpark, adjacent to school boundary. Partly suppressed - crown bias north.	18/06/2021	2.9	2.0	Community Health Centre	2,4	No
319	<i>Eucalyptus melliodora</i>	Yellow Box	Early-mature	Victorian native	48	57	11	8	Fair	Fair	Mod.B	>40	In Health Centre carpark, adjacent to school boundary.	18/06/2021	5.8	2.6	Community Health Centre	2,4	Yes
320	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	14	18	6	4	Fair	Fair	Low	11-20	In Health Centre carpark, adjacent to school boundary.	18/06/2021	2.0	1.6	Community Health Centre	2,4	No
321	<i>Eucalyptus polyanthemus</i>	Red Box	Semi-mature	Victorian native	32	40	8	6	Fair	Fair	Mod.C	21-40	In Health Centre carpark, adjacent to school boundary. Unusual burl in branch towards carpark. Leaf spotting lower canopy.	18/06/2021	3.8	2.3	Community Health Centre	2,4	Yes
322	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	22,13,11	25	6	6	Fair	Fair to Poor	Low	11-20	In Health Centre carpark, adjacent to school boundary.	18/06/2021	3.3	1.8	Community Health Centre	2,4	Yes
323	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	16	20	7	4	Fair	Fair to Poor	Low	11-20	In Health Centre carpark, adjacent to school boundary.	18/06/2021	2.0	1.7	Community Health Centre	2,4	No
324	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	92	107	21	20	Fair	Fair	Mod.A	>40	In Health Centre carpark, adjacent to school boundary. In kerb outstand; trunk swoops south but self corrected, slightly reduced foliage density; sooty mould/lerp with some chlorosis (seasonal?). Potential to be High-rated.	18/06/2021	11.0	3.4	Community Health Centre	2,4	Yes
325	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	13,11	17	6	5	Fair	Fair to Poor	Low	11-20	In Health Centre carpark, adjacent to school boundary. Wounds near union.	18/06/2021	2.0	1.6	Community Health Centre	4	No
326	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	15	20	6	5	Fair	Fair	Low	21-40	In Health Centre carpark, adjacent to school boundary. Behind temporary fencing.	18/06/2021	2.0	1.7	Community Health Centre	4	No
327	<i>Agonis flexuosa</i>	Willow Myrtle	Early-mature	Australian native	47 @0.1	47	12	11	Fair	Fair to Poor	Mod.C	11-20	Historic split of stem. Appears to be sound, however cabling is recommended to retain tree. Significant damage to parked cars if stem fails	17/06/2021	5.6	2.4	Towers - South (Near School)	4	Yes
328	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	47	47	12	11	Fair	Fair	Mod.B	>40		15/06/2021	5.6	2.4	Towers - South (Near School)	4	Yes
329	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	48	58	13	12	Fair	Fair	Mod.B	>40	Minor top failure.	17/06/2021	5.8	2.6	Towers - South (Near School)	4	Yes
330	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	77	91	26	13	Fair	Fair	Mod.A	>40	Adjacent to school boundary.	17/06/2021	9.2	3.2	Towers - South (Near School)	4	Yes
331	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	58	69	25	11	Good	Fair	Mod.A	21-40	Adjacent to school boundary.	17/06/2021	7.0	2.8	Towers - South (Near School)	4	Yes
332	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	69	81	26	12	Fair	Fair	Mod.A	>40	Adjacent to school boundary.	15/06/2021	8.3	3.0	Towers - South (Near School)	4	Yes
333	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	56	58	16	10	Fair	Fair to Poor	Mod.B	11-20	Adjacent to school boundary. Pronounced southerly canopy bias	17/06/2021	6.7	2.6	Towers - South (Near School)	4	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
334	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	72	89	19	11	Fair	Poor	Very Low	11-20	Lost main leader. Missing leader with lower crown remaining. Branches sound but may reach overextension in future. Reinspect or replace.	17/06/2021	8.6	3.2	Towers - South (Near School)	4	Yes
335	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	71	80	23	15	Good	Fair to Poor	Mod.B	11-20	Adjacent to school boundary. Stem removed to north; copious epicormics at large pruning wound.	17/06/2021	8.5	3.0	Towers - South (Near School)	4	Yes
336	<i>Acacia baileyana</i>	Cootamundra Wattle	Maturing	Australian native	22	22	5	6	Fair	Poor	Low	1-5	Adjacent to school boundary. Bracket fungi.	17/06/2021	2.6	1.8	Towers - South (Near School)	4,5	No
337	<i>Melaleuca armillaris</i>	Bracelet Honey-myrtle	Early-mature	Victorian native	20,12 @1.3	30	4	4	Fair	Fair to Poor	Low	11-20	Adjacent to school boundary. Partly suppressed - crown bias north.	17/06/2021	2.8	2.0	Towers - South (Near School)	4,5	No
338	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Maturing	Australian native	80	90	22	12	Fair	Fair	Mod.B	11-20	Adjacent to school boundary. Large pruning wound possibly due to past failure. Visible surface roots, minor damage.	18/06/2021	9.6	3.2	Towers - South (Near School)	4,5	Yes
339	<i>Casuarina cunninghamiana</i>	River She-oak	Early-mature	Australian native	51 @1.1	55	16	9	Fair	Fair to Poor	Mod.B	11-20	Adjacent to school boundary. Co-dominant stem at 1.4m, minor dieback.	17/06/2021	6.1	2.6	Towers - South (Near School)	4,5	Yes
340	<i>Ulmus parvifolia</i>	Chinese Elm	Early-mature	Exotic deciduous	28,21,19	49	9	16	Fair	Fair	Mod.B	21-40	Adjacent to school boundary.	17/06/2021	4.8	2.5	Towers - South (Near School)	4,5	Yes
341	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	65	75	23	11	Fair to Poor	Fair to Poor	Mod.C	6-10	Adjacent to school boundary. Minor dieback to south, fungal bracket at pruning wound union to north, decay likely progressing.	17/06/2021	7.8	2.9	Towers - South (Near School)	4,5	Yes
342	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	89	110	25	15	Fair	Fair	Mod.A	>40	Adjacent to school boundary.	17/06/2021	10.7	3.4	Towers - South (Near School)	4,5	Yes
343	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	40	50	15	8	Poor	Fair to Poor	Very Low	1-5	Adjacent to school boundary. Epicormic crown, main leader dead. Crown bias to south. Suppressed canopy bias.	17/06/2021	4.8	2.5	Towers - South (Near School)	4,5	Yes
344	<i>Grevillea robusta</i>	Silky Oak	Early-mature	Australian native	34	41	14	7	Fair	Fair	Mod.B	21-40	Adjacent to school boundary. Slightly suppressed by neighbouring red gum.	17/06/2021	4.1	2.3	Towers - South (Near School)	4,5	Yes
345	<i>Eucalyptus viminalis</i>	Manna Gum	Early-mature	Victorian native	45	55	15	8	Dead	Very Poor	Very Low	<1	Adjacent to school boundary.	17/06/2021	5.4	2.6	Towers - South (Near School)	4,5	Yes
346	<i>Ulmus parvifolia</i>	Chinese Elm	Semi-mature	Exotic deciduous	8,6	23	3	4	Fair	Fair to Poor	Low	11-20	Adjacent to school boundary. Multi-stemmed from base.	17/06/2021	2.0	1.8	Towers - South (Near School)	4,5	No
347	<i>Ulmus parvifolia</i>	Chinese Elm	Semi-mature	Exotic deciduous	14,11	28	5	5	Fair	Fair to Poor	Low	21-40	Adjacent to school boundary. Multi-stemmed from base.	17/06/2021	2.1	1.9	Towers - South (Near School)	4,5	No
348	<i>Ulmus parvifolia</i>	Chinese Elm	Semi-mature	Exotic deciduous	12,10	16	4	3	Fair	Fair	Low	21-40	Adjacent to school boundary.	17/06/2021	2.0	1.5	Towers - South (Near School)	4,5	No
349	<i>Grevillea robusta</i>	Silky Oak	Early-mature	Australian native	49	52	18	10	Fair	Fair to Poor	Mod.C	11-20	Adjacent to school boundary. Congested primary union, deadwood, past branch failure.	17/06/2021	5.9	2.5	Towers - South (Near School)	4,5	Yes
350	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Semi-mature	Exotic deciduous	24	27	8	8	Fair to Poor	Fair to Poor	Low	6-10	Adjacent to school boundary. Past eastern top dieback and reduction. Decay at primary union	15/06/2021	2.9	1.9	Towers - South (Near School)	4,5	No
351	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	49	62	11	12	Fair to Poor	Fair to Poor	Low	6-10	Adjacent to school boundary. Past dieback event, top eastern top dieback leading to union decay. Good reactive growth however at decay. Southern deadwood removal.	15/06/2021	5.9	2.7	Towers - South (Near School)	4,5	Yes
352	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	43	63	24	14	Fair	Poor	Mod.C	6-10	Partly suppressed. Reduced inner canopy, more prone to failure, fewer pruning options. Very overextended branch to west but difficult to reduce length; removal could change wind attenuation profile.	17/06/2021	5.2	2.7	Towers - South (Near School)	4,5	Yes
353	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	59	73	24	15	Fair	Fair to Poor	Mod.B	11-20	Acute union with included bark, very overextended limbs to north, pruning recommended.	17/06/2021	7.1	2.9	Towers - South (Near School)	4,5	Yes
354	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	63	74	26	16	Fair	Fair	Mod.A	11-20		17/06/2021	7.6	2.9	Towers - South (Near School)	4,5	Yes
355	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	78	87	28	16	Fair	Fair	Mod.B	11-20	Past branch failure. Minor dieback to south, branches becoming overextended.	17/06/2021	9.4	3.1	Towers - South (Near School)	4,5	Yes
356	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	84	101	21	12	Fair to Poor	Poor	Low	6-10	Past branch failure. Apex dieback. Fungal bracket at union over footpath, many branches reduced	17/06/2021	10.1	3.3	Towers - South (Near School)	4,5	Yes
357	<i>Casuarina cunninghamiana</i>	River She-oak	Maturing	Australian native	62	76	22	12	Good	Fair	Mod.A	21-40		17/06/2021	7.4	2.9	Towers - South	4,5	Yes
358	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	93	112	21	21	Good	Fair	High	>40	Good specimen. Close to kerb. Surface roots esp to west	18/06/2021	11.2	3.5	Towers - South	4,5	Yes
359	<i>Ulmus parvifolia</i>	Chinese Elm	Semi-mature	Exotic deciduous	18,9,9,8	45	5	6	Fair	Fair	Mod.C	>40		15/06/2021	2.8	2.4	Towers - South	4,5	Yes
360	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Maturing	Australian native	66	75	17	13	Fair	Fair	Mod.B	11-20	Reduced foliage density. Waterhousia floribunda and Pittosporum tenuifolium @base 10 dbh, overextended limb to southwest.	17/06/2021	7.9	2.9	Towers - South	4,5	Yes
361	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	52	64	15	16	Fair	Fair	Mod.B	11-20	Canopy bias to west.	17/06/2021	6.2	2.7	Towers - South	4,5	Yes
362	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	35	45	15	9	Fair	Fair	Mod.B	11-20	Suppressed canopy.	17/06/2021	4.2	2.4	Towers - South	4,5	Yes
363	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	58	69	22	10	Fair	Fair	Mod.B	11-20		17/06/2021	7.0	2.8	Towers - South	4,5	Yes
364	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	42	50	18	12	Fair to Poor	Fair to Poor	Mod.C	6-10	Overextended branches, reduced foliage density, minor dieback.	17/06/2021	5.0	2.5	Towers - South	4,5	Yes
365	<i>Grevillea robusta</i>	Silky Oak	Early-mature	Australian native	32	38	6	5	Fair to Poor	Fair	Low	11-20	Suppressed.	15/06/2021	3.8	2.2	Towers - South	5	No
366	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	79	88	19	20	Good	Fair to Poor	Mod.B	11-20	Fungal brackets at limb failure wound to west, full vigorous canopy with minimal evidence of other failures at present however decay likely to become eventual issue.	17/06/2021	9.5	3.1	Towers - South	5	Yes
367	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	49	60	16	12	Fair	Fair	Mod.B	21-40	Pruned for upright form.	17/06/2021	5.9	2.7	Towers - South	5	Yes
368	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	56	67	18	17	Fair	Fair to Poor	Mod.C	11-20	Recent limb failure to north, overextended, end weighted limbs with wide angle at union more typical of Lemon-scented Gum - limited pruning options.	17/06/2021	6.7	2.8	Towers - South	5	Yes
369	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	26	32	8	4	Fair	Fair	Mod.C	>40		17/06/2021	3.1	2.1	Towers - South	4,5	No
370	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	16	21	6	3	Fair to Poor	Fair	Mod.C	>40	Sooty mould and lerp.	17/06/2021	2.0	1.7	Towers - South	4,5	No
371	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	14	18	4	4	Fair to Poor	Fair to Poor	Low	21-40	Sooty mould and lerp, main leader kinked.	17/06/2021	2.0	1.6	Towers - South	4,5	No
372	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	10	12	4	3	Fair to Poor	Fair to Poor	Low	11-20	Partly suppressed - crown bias west, main stem wound.	17/06/2021	2.0	1.5	Towers - South	4,5	No
373	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	20	24	7	5	Fair	Fair to Poor	Mod.C	>40	Acute union secondary stem.	17/06/2021	2.4	1.8	Towers - South	4,5	No
374	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	17	21	7	5	Fair to Poor	Fair to Poor	Low	21-40	Reduced foliage density.	17/06/2021	2.0	1.7	Towers - South	4,5	No
375	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	22	26	8	6	Fair	Poor	Low	21-40	Included bark at main union, formative pruning could improve structure.	17/06/2021	2.6	1.9	Towers - South	4,5	No
376	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	28	33	11	7	Fair	Fair to Poor	Mod.C	21-40	Kinked main stem, southern limb becoming overextended.	17/06/2021	3.4	2.1	Towers - South	5	No
377	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	19	23	9	6	Fair	Fair	Mod.C	>40		17/06/2021	2.3	1.8	Towers - South	5	No
378	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	10	12	4	3	Dead	Very Poor	Very Low	<1	Dead tree - significant basal wounds from mowing.	17/06/2021	2.0	1.5	Towers - South	5	No

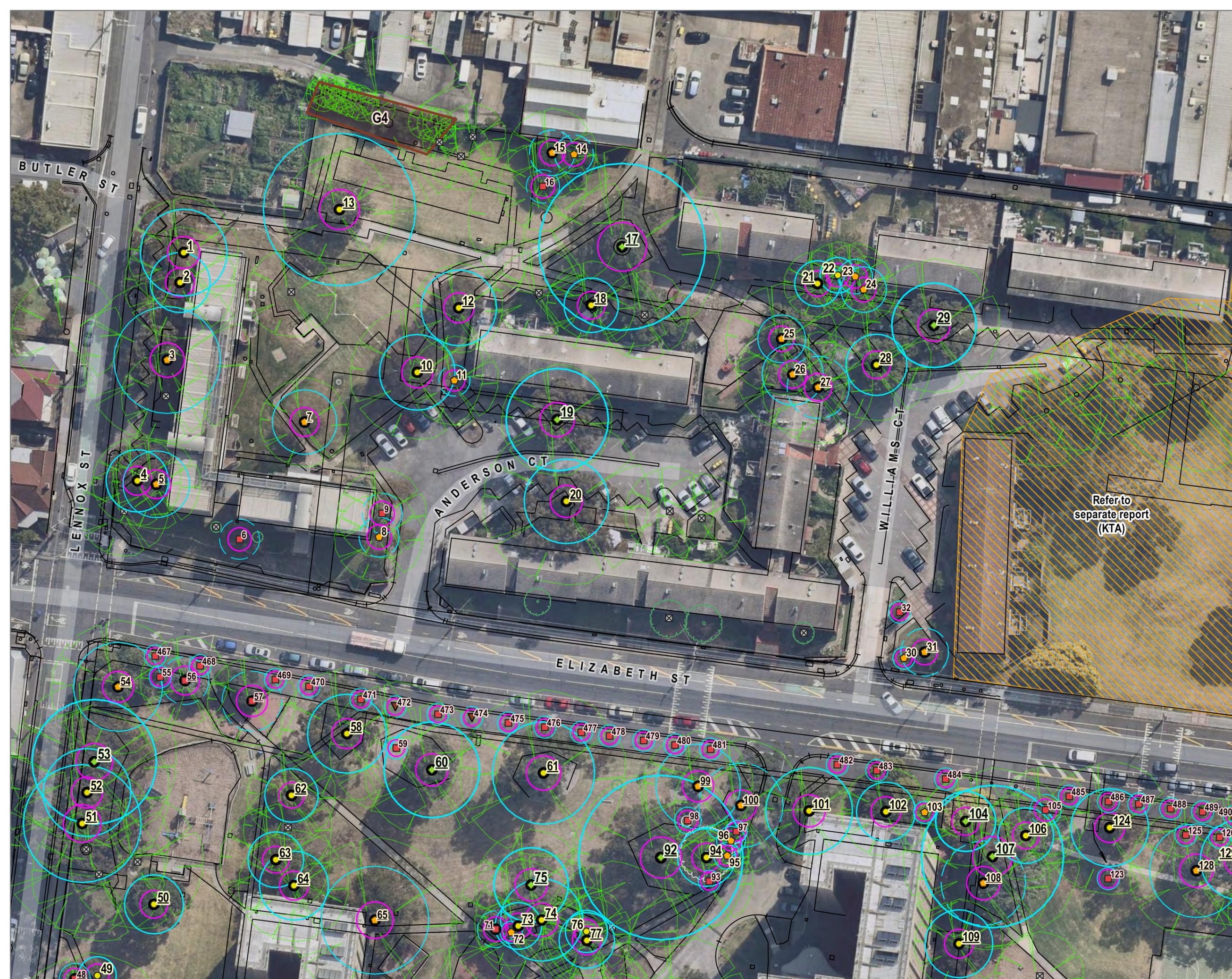
No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
379	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	8	11	4	2	Fair to Poor	Fair to Poor	Low	11-20	Basal wound from mowing.	17/06/2021	2.0	1.5	Towers - South	5	No
380	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	10	13	4	3	Fair to Poor	Fair to Poor	Low	11-20	Localised dieback.	17/06/2021	2.0	1.5	Towers - South	5	No
381	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	15	20	7	4	Fair to Poor	Fair	Low	21-40		17/06/2021	2.0	1.7	Towers - South	5	No
382	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	15	20	7	4	Fair to Poor	Fair	Low	21-40		17/06/2021	2.0	1.7	Towers - South	5	No
383	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	78	103	16	10	Fair	Poor	Low	6-10	Basal measured at 1m - pronounced bulge at base from extensive fungal decay, multiple brackets; minimal effect on rather broad and healthy canopy at present. Large surface roots to south.	15/06/2021	9.4	3.4	Towers - South	5	Yes
384	<i>Eucalyptus camaldulensis</i>	River Red Gum	Semi-mature	Victorian native	16	20	8	3	Poor	Very Poor	Very Low	<1	90% dead.	15/06/2021	2.0	1.7	Towers - South	5	No
385	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	37	47	10	10	Fair	Fair	Mod.C	21-40	Partly suppressed - crown bias north.	15/06/2021	4.4	2.4	Towers - South	5	Yes
386	<i>Melaleuca styphelioides</i>	Prickly-leaved Paperbark	Semi-mature	Australian native	11	16	2	3	Fair	Fair	Low	21-40		15/06/2021	2.0	1.5	Towers - South	5	No
387	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	36	55	12	8	Fair	Fair to Poor	Mod.C	11-20	Partly suppressed - crown bias west - considerable.	15/06/2021	4.3	2.6	Towers - South	5	Yes
388	<i>Eucalyptus sideroxylon</i>	Red Ironbark	Early-mature	Australian native	56	76	16	15	Good	Fair	Mod.B	21-40	Overextension of branches to west and side limb becoming dominant, should be addressed with pruning.	15/06/2021	6.7	2.9	Towers - South	5	Yes
389	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	33	41	11	8	Fair to Poor	Fair	Mod.C	21-40	Reduced foliage density at apex.	15/06/2021	4.0	2.3	Towers - South	5	Yes
390	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Semi-mature	Australian native	22,19	50	9	6	Fair	Poor	Low	6-10	Basal wounds. Branch wound to east.	15/06/2021	3.5	2.5	Towers - South	5	Yes
391	<i>Casuarina cunninghamiana</i>	River She-oak	Semi-mature	Australian native	29	39	13	7	Fair	Fair	Mod.C	21-40		15/06/2021	3.5	2.2	Towers - South	5	No
392	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	18	23	9	5	Fair to Poor	Fair	Low	21-40	Reduced foliage density.	15/06/2021	2.2	1.8	Towers - South	5	No
393	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	70	94	17	12	Fair to Poor	Fair to Poor	Low	1-5	Reduced foliage density. Recent limb failure to east, fungal brackets at past pruning wounds.	15/06/2021	8.4	3.2	Towers - South	5	Yes
394	<i>Quercus robur</i>	English Oak	Early-mature	Exotic deciduous	41	52	12	12	Fair	Fair to Poor	Mod.C	21-40	Congested primary union.	15/06/2021	4.9	2.5	Towers - South	5	Yes
395	<i>Populus alba</i>	White Poplar	Maturing	Exotic deciduous	41	53	15	10	Fair to Poor	Fair to Poor	Low	6-10	Moderate deadwood incl dead lowest branch to west over footpath, reassess in summer.	15/06/2021	4.9	2.5	Towers - South	5	Yes
396	<i>Eucalyptus polyanthemus</i>	Red Box	Early-mature	Victorian native	61	73	17	12	Fair	Fair	Mod.A	21-40	Slight crown bias south.	15/06/2021	7.3	2.9	Towers - South	5	Yes
397	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	75	92	17	12	Fair	Fair to Poor	Mod.C	6-10	Past branch failure to north, fungal brackets at failure point.	15/06/2021	9.0	3.2	Towers - South	5	Yes
398	<i>Corymbia citriodora</i>	Lemon-scented Gum	Early-mature	Australian native	26,16	51	17	12	Fair to Poor	Poor	Low	6-10	Past stem failure, soil fill against trunk to south.	15/06/2021	3.7	2.5	Towers - South	5	Yes
399	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	85	93	18	16	Fair	Fair	Mod.B	11-20	Crown bias northwest, heaving of pavement to north, lowest branch at 2m height to north. No fungal brackets observed but likely lower end of ULE range. Careful management.	15/06/2021	10.2	3.2	Towers - South	5	Yes
400	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	31	34	8	5	Fair	Fair	Mod.C	>40	Partly suppressed - crown bias west.	15/06/2021	3.7	2.1	Towers - South	5	No
401	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	31	37	8	7	Fair	Fair	Mod.C	>40		15/06/2021	3.7	2.2	Towers - South	5	No
402	<i>Corymbia maculata</i>	Spotted Gum	Semi-mature	Victorian native	38	45	13	7	Fair	Fair	Mod.B	>40	Hooks in trunk to west.	15/06/2021	4.6	2.4	Towers - South	5	Yes
403	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	45	55	8	10	Fair	Fair	Mod.B	21-40	Partly suppressed - crown bias west.	15/06/2021	5.4	2.6	Towers - South	5	Yes
404	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Semi-mature	Australian native	20	28	5	4	Fair to Poor	Fair to Poor	Low	6-10	Reduced foliage density, suppressed. Basal wound to south.	15/06/2021	2.4	1.9	Towers - South	5	No
405	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	37	44	7	10	Fair	Fair	Mod.B	21-40		15/06/2021	4.4	2.3	Towers - South	5	Yes
406	<i>Grevillea robusta</i>	Silky Oak	Semi-mature	Australian native	22	27	10	6	Fair	Fair	Mod.C	>40	Large surface root to west.	15/06/2021	2.6	1.9	Towers - South	5	No
407	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	47	57	10	6	Fair	Fair to Poor	Low	6-10	Partly suppressed - crown bias west - considerable. Bulge mid-trunk.	15/06/2021	5.6	2.6	Towers - South	5	Yes
408	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	26	36	15	7	Fair	Fair to Poor	Low	11-20	Suppressed. Significant crown bias west.	15/06/2021	3.1	2.2	Towers - South	5	No
409	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Maturing	Australian native	63	75	20	15	Fair	Fair	Mod.B	11-20		15/06/2021	7.6	2.9	Towers - South	5	Yes
410	<i>Pittosporum eugeniioides 'Variegatum'</i>	Variegated Tarata	Semi-mature	Exotic evergreen	10,10	17	3	5	Fair	Fair	Low	11-20		15/06/2021	2.0	1.6	Towers - South	5	No
411	<i>Quercus ilex</i>	Holly Oak	Semi-mature	Exotic evergreen	25	29	8	7	Fair	Fair	Low	21-40		15/06/2021	3.0	2.0	Towers - South	5	No
412	<i>Corymbia citriodora</i>	Lemon-scented Gum	Early-mature	Australian native	47	59	17	12	Fair to Poor	Fair	Mod.B	11-20	Reduced foliage density. Excurrent form but wide branch angles (near 90 deg), surface roots.	15/06/2021	5.6	2.7	Towers - South	5	Yes
413	<i>Eucalyptus nicholii</i>	Narrow-leaved Black Peppermint	Early-mature	Australian native	30,25	45	10	9	Fair to Poor	Fair to Poor	Low	6-10	Reduced foliage density.	15/06/2021	4.7	2.4	Towers - South	5	Yes
414	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	71	90	16	10	Fair	Fair	Mod.B	21-40	Partly suppressed - crown bias south, pronounced overextension of limbs over Highett Street.	15/06/2021	8.5	3.2	Towers - South	5	Yes
415	<i>Eucalyptus camaldulensis</i>	River Red Gum	Early-mature	Victorian native	56	77	16	10	Fair to Poor	Fair	Mod.C	11-20	Reduced foliage density.	15/06/2021	6.7	3.0	Towers - South	5	Yes
416	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	44,20	57	8	10	Fair	Poor	Low	6-10	Multiple branch failures, stem failure.	15/06/2021	5.8	2.6	Towers - South	5	Yes
417	<i>Ulmus parvifolia</i>	Chinese Elm	Early-mature	Exotic deciduous	42,40	68	12	15	Fair	Fair	Mod.B	21-40		15/06/2021	7.0	2.8	Towers - South	5	Yes
418	<i>Syzygium sp.</i>	Lilly Pilly	Semi-mature	Australian native	11,8,6	15	2	2	Fair to Poor	Fair	Low	6-10	Suppressed.	15/06/2021	2.0	1.5	Towers - South	5	No
419	<i>Syzygium sp.</i>	Lilly Pilly	Semi-mature	Australian native	13	16	4	3	Fair to Poor	Fair	Low	6-10	Suppressed.	15/06/2021	2.0	1.5	Towers - South	5	No
420	<i>Quercus robur</i>	English Oak	Early-mature	Exotic deciduous	50	60	9	10	Fair	Fair	Mod.B	>40	Partly suppressed - crown bias east.	15/06/2021	6.0	2.7	Towers - South	5	Yes
421	<i>Eucalyptus globulus</i>	Southern Blue Gum	Maturing	Australian native	73	93	16	12	Fair	Fair to Poor	Mod.C	11-20	Past limb failure to east, fungal bracket and reduced foliage density at apex, limbs becoming overextended to south over road. Consider aerial inspection re: extent of decay.	15/06/2021	8.8	3.2	Towers - South	5	Yes
422	<i>Corymbia maculata</i>	Spotted Gum	Early-mature	Victorian native	41	50	12	10	Fair	Fair	Mod.B	>40		15/06/2021	4.9	2.5	Towers - South	5	Yes
423	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	33	42	8	8	Fair	Fair	Mod.C	11-20	Tree growth seems to be static/reduced.	15/06/2021	4.0	2.3	Towers - South	5	Yes
424	<i>Ulmus glabra 'Lutescens'</i>	Golden Wych Elm	Early-mature	Exotic deciduous	50	62	8	12	Fair	Fair	Mod.B	21-40	Mower damage to surface roots. Branch tearout to west.	15/06/2021	6.0	2.7	Towers - South	5	Yes
425	<i>Corymbia citriodora</i>	Lemon-scented Gum	Semi-mature	Australian native	24	31	6	6	Fair to Poor	Fair	Low	21-40		15/06/2021	2.9	2.0	Towers - South	5	No
426	<i>Eucalyptus crenulata</i>	Buxton Gum	Maturing	Victorian native	53,48	64	4	12	Poor	Poor	Very Low	<1	Significant dieback, epicormic crown, 3x fungal brackets.	15/06/2021	8.6	2.7	Towers - South	5	Yes
427	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	51	63	13	15	Fair	Fair	Mod.B	>40		15/06/2021	6.1	2.7	Towers - South	5	Yes

No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
428	<i>Melaleuca armillaris</i>	Bracelet Honey-myrtle	Maturing	Victorian native	42,39	90	6	7	Fair to Poor	Fair to Poor	Low	1-5		15/06/2021	6.9	3.2	Towers - South	4,5	Yes
429	<i>Corymbia citriodora</i>	Lemon-scented Gum	Early-mature	Australian native	55	60	15	13	Fair	Fair to Poor	Mod.B	11-20	Adjacent to (south of) community garden. Partly suppressed - crown bias east.	15/06/2021	6.6	2.7	Towers - South	4,5	Yes
430	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	59,50	108	20	15	Fair	Fair to Poor	Mod.B	11-20	Adjacent to (south of) community garden. Past tearouts to north, overextended branches, can be managed with pruning.	15/06/2021	9.3	3.4	Towers - South	4,5	Yes
431	<i>Eucalyptus camaldulensis</i>	River Red Gum	Semi-mature	Victorian native	29	35	13	5	Fair to Poor	Fair to Poor	Low	11-20	Adjacent to (south of) community garden. Reduced foliage density, suppressed.	15/06/2021	3.5	2.1	Towers - South	4,5	No
432	<i>Eucalyptus saligna</i>	Sydney Blue Gum	Early-mature	Australian native	55	77	20	11	Fair	Fair	Mod.B	21-40	Adjacent to (south of) community garden. Good excurrent form.	15/06/2021	6.6	3.0	Towers - South	4,5	Yes
433	<i>Corymbia maculata</i>	Spotted Gum	Maturing	Victorian native	65	80	25	14	Fair	Fair	Mod.B	21-40	Inside community garden. Becoming overextended to west. Wedged between shed and paths. Younger leaves appear slightly chlorotic.	18/06/2021	7.8	3.0	Towers - South	4	Yes
434	<i>Ulmus minor</i>	Smooth-leaved Elm	Early-mature	Exotic deciduous	52	54	12	14	Fair	Fair	Mod.B	21-40		15/06/2021	6.2	2.6	Street Trees - Lennox St	4	Street
435	<i>Ulmus minor</i>	Smooth-leaved Elm	Semi-mature	Exotic deciduous	38	42	12	9	Fair	Fair	Mod.B	21-40		15/06/2021	4.6	2.3	Street Trees - Lennox St	4	Street
436	<i>Ulmus minor</i>	Smooth-leaved Elm	Young	Exotic deciduous	5	9	5	2	Fair	Fair	Low	6-10	Slow growth - planted 2016	15/06/2021	2.0	1.5	Street Trees - Lennox St	4	Street
437	<i>Ulmus minor</i>	Smooth-leaved Elm	Semi-mature	Exotic deciduous	33	41	9	8	Fair	Fair	Mod.C	21-40	Congested primary union, past branch failure.	15/06/2021	4.0	2.3	Street Trees - Lennox St	4	Street
438	<i>Ulmus minor</i>	Smooth-leaved Elm	Semi-mature	Exotic deciduous	32	40	10	8	Fair	Fair	Mod.B	21-40		15/06/2021	3.8	2.3	Street Trees - Lennox St	4	Street
439	<i>Ulmus minor</i>	Smooth-leaved Elm	Semi-mature	Exotic deciduous	38	46	11	10	Fair	Fair	Mod.B	>40		15/06/2021	4.6	2.4	Street Trees - Lennox St	4	Street
440	<i>Ulmus sp.</i>	Elm Tree	Young	Exotic deciduous	2	3	2	2	Fair	Fair	Low	21-40	Planted 2020	15/06/2021	2.0	1.5	Street Trees - Lennox St	4	Street
441	<i>Ulmus Xhollandica</i>	Dutch Elm	Semi-mature	Exotic deciduous	39	44	9	4	Fair to Poor	Fair to Poor	Low	11-20	Crown reduced.	15/06/2021	4.7	2.3	Street Trees - Lennox St	4,5	Street
442	<i>Ulmus sp.</i>	Elm Tree	Young	Exotic deciduous	2	3	2	1	Fair	Fair	Low	21-40		15/06/2021	2.0	1.5	Street Trees - Lennox St	4,5	Street
443	<i>Ulmus Xhollandica</i>	Dutch Elm	Semi-mature	Exotic deciduous	39	43	9	4	Fair to Poor	Fair to Poor	Low	6-10	Reduced foliage density. Crown reduced.	15/06/2021	4.7	2.3	Street Trees - Lennox St	4,5	Street
444	<i>Ulmus Xhollandica</i>	Dutch Elm	Early-mature	Exotic deciduous	44	50	12	7	Fair to Poor	Fair to Poor	Low	6-10	Reduced foliage density. Canopy bias south.	15/06/2021	5.3	2.5	Street Trees - Lennox St	4,5	Street
445	<i>Ulmus Xhollandica</i>	Dutch Elm	Early-mature	Exotic deciduous	43	49	13	9	Fair to Poor	Fair	Mod.C	6-10	Minor dieback, reduced foliage density.	15/06/2021	5.2	2.5	Street Trees - Lennox St	4,5	Street
446	<i>Ulmus sp.</i>	Elm Tree	Young	Exotic deciduous	2	3	2	1	Fair	Fair	Low	21-40		15/06/2021	2.0	1.5	Street Trees - Lennox St	5	Street
447	<i>Ulmus sp.</i>	Elm Tree	Young	Exotic deciduous	2	4	2	1	Fair	Fair	Low	21-40		15/06/2021	2.0	1.5	Street Trees - Lennox St	5	Street
448	<i>Fraxinus sp.</i>	Ash	Semi-mature	Exotic deciduous	12	13	5	3	Fair	Fair to Poor	Low	21-40	Borers.	15/06/2021	2.0	1.5	Street Trees - Lennox St	5	Street
449	<i>Ulmus Xhollandica</i>	Dutch Elm	Early-mature	Exotic deciduous	46	53	12	11	Fair to Poor	Fair to Poor	Low	6-10	Minor dieback, reduced foliage density.	15/06/2021	5.5	2.5	Street Trees - Lennox St	5	Street
450	<i>Ulmus sp.</i>	Elm Tree	Young	Exotic deciduous	1	2	2	1	Fair to Poor	Fair	Low	6-10	Minor dieback.	15/06/2021	2.0	1.5	Street Trees - Lennox St	5	Street
451	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	28	32	12	8	Fair	Fair	Mod.B	>40	Southern canopy bias.	15/06/2021	3.4	2.1	Street Trees - Highett St (north)	5	Street
452	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	26	32	12	8	Fair	Fair	Mod.B	>40	S canopy bias.	15/06/2021	3.1	2.1	Street Trees - Highett St (north)	5	Street
453	<i>Quercus robur</i>	English Oak	Young	Exotic deciduous	5	7	3	2	Fair	Fair	Low	>40		15/06/2021	2.0	1.5	Street Trees - Highett St (north)	5	Street
454	<i>Quercus robur</i>	English Oak	Young	Exotic deciduous	5	7	4	2	Fair	Fair	Low	>40		15/06/2021	2.0	1.5	Street Trees - Highett St (north)	5	Street
455	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	20	25	10	6	Fair	Fair	Mod.B	>40		15/06/2021	2.4	1.8	Street Trees - Highett St (north)	5	Street
456	<i>Quercus robur</i>	English Oak	Young	Exotic deciduous	4	5	3	2	Fair	Fair	Low	>40		15/06/2021	2.0	1.5	Street Trees - Highett St (north)	5	Street
457	<i>Quercus robur</i>	English Oak	Young	Exotic deciduous	4	5	3	2	Fair	Fair	Low	>40		15/06/2021	2.0	1.5	Street Trees - Highett St (north)	5	Street
458	<i>Platanus Xacerifolia</i>	London Plane	Semi-mature	Exotic deciduous	32	42	12	8	Fair	Fair	Mod.B	>40		15/06/2021	3.8	2.3	Street Trees - Highett St (north)	5	Street
459	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	43	53	16	12	Fair	Fair	Mod.B	21-40		15/06/2021	5.2	2.5	Street Trees - Highett St (north)	5	Street
460	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	51	60	19	12	Fair	Fair	Mod.B	21-40		15/06/2021	6.1	2.7	Street Trees - Highett St (north)	5	Street
461	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	43	54	17	10	Fair	Fair	Mod.B	21-40		15/06/2021	5.2	2.6	Street Trees - Highett St (north)	5	Street
462	<i>Quercus robur</i>	English Oak	Young	Exotic deciduous	4	5	3	2	Fair	Fair	Low	21-40		15/06/2021	2.0	1.5	Street Trees - Highett St (south)	5	Street
463	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	48	55	18	13	Good	Fair	Mod.A	21-40		15/06/2021	5.8	2.6	Street Trees - Highett St (south)	5	Street
464	<i>Quercus robur</i>	English Oak	Young	Exotic deciduous	5	6	3	2	Fair	Fair	Low	21-40		15/06/2021	2.0	1.5	Street Trees - Highett St (south)	5	Street
465	<i>Platanus Xacerifolia</i>	London Plane	Early-mature	Exotic deciduous	64	76	18	13	Fair	Fair	Mod.B	11-20		15/06/2021	7.7	2.9	Street Trees - Highett St (south)	5	Street
466	<i>Quercus robur</i>	English Oak	Young	Exotic deciduous	6	8	3	2	Fair	Fair	Low	21-40		15/06/2021	2.0	1.5	Street Trees - Highett St (south)	5	Street
467	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair to Poor	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
468	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
469	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
470	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
471	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
472	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Poor	Very Low	<1	Mostly damaged lower limbs ripped off	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
473	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40	Upper canopy sparse	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
474	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	1	1	Fair	Poor	Very Low	<1	Top snapped. Replace	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
475	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
476	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
477	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
478	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
479	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
480	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
481	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
482	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
483	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street
484	<i>Zelkova serrata 'Green Vase'</i>	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1	Street

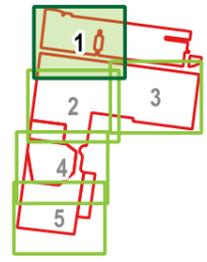
No	Species	Common Name	Age Class	Origin/Type	DBH (cm)	Basal Ø (cm)	Height (m)	Width (m)	Health	Structure	Arb. Rating	ULE (yrs)	Comments	Date Assessed	TPZ radius (m)	SRZ radius (m)	Section	Map	Local Law?
485	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1,3	Street
486	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1,3	Street
487	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1,3	Street
488	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1,3	Street
489	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1,3	Street
490	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	1,3	Street
491	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
492	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
493	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
494	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Poor	Very Low	<1	Top snapped and torn, replace	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
495	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
496	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair to Poor	Low	21-40	1x branch snapped, crown bias north	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
497	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
498	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40	Crown bias north	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
499	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
500	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair to Poor	Low	21-40	Limb wound	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
501	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
502	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
503	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
504	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
505	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
506	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
507	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
508	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
509	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	3	1	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
510	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
511	<i>Zelkova serrata</i> 'Green Vase'	Japanese Zelkova	Young	Exotic deciduous	2	5	2	1	Fair to Poor	Fair	Low	21-40	Apparently sparse buds/reduced branching	26/07/2021	2.0	1.5	Street Trees - Elizabeth St	3	Street
512	<i>Acer Xfreemanii</i> 'Autumn Blaze'	Freeman Maple	Semi-mature	Exotic deciduous	10	12	5	3	Fair	Fair	Low	21-40		26/07/2021	2.0	1.5	Street Trees - Church St	3	Street
513	<i>Acer Xfreemanii</i> 'Autumn Blaze'	Freeman Maple	Young	Exotic deciduous	4	7	2	1	Fair	Fair	Low	21-40	In tree cage, staked.	26/07/2021	2.0	1.5	Street Trees - Church St	3	Street
514	<i>Acer Xfreemanii</i> 'Autumn Blaze'	Freeman Maple	Young	Exotic deciduous	4	7	2	1	Fair	Fair	Low	21-40	In tree cage, staked.	26/07/2021	2.0	1.5	Street Trees - Church St	3	Street
515	<i>Acer Xfreemanii</i> 'Autumn Blaze'	Freeman Maple	Young	Exotic deciduous	5	7	3	1	Fair	Fair	Low	21-40	In tree cage, staked.	26/07/2021	2.0	1.5	Street Trees - Church St	3	Street
516	<i>Acer Xfreemanii</i> 'Autumn Blaze'	Freeman Maple	Young	Exotic deciduous	2	5	2	1	Fair	Fair	Low	21-40	In tree cage, staked.	26/07/2021	2.0	1.5	Street Trees - Church St	3	Street
517	<i>Acer Xfreemanii</i> 'Autumn Blaze'	Freeman Maple	Young	Exotic deciduous	5	7	3	1	Fair	Fair	Low	21-40	In tree cage, staked.	26/07/2021	2.0	1.5	Street Trees - Church St	3	Street
518	<i>Acer Xfreemanii</i> 'Autumn Blaze'	Freeman Maple	Semi-mature	Exotic deciduous	15	20	6	4	Fair	Fair	Mod.C	21-40	Trunk wound to west	26/07/2021	2.0	1.7	Street Trees - Church St	3	Street
G1	<i>Acacia melanoxylon</i> , <i>Eucalyptus sp.</i>	Blackwood, Gum Tree	Young	Victorian native;Australian native	1-8	3-10	2-6	1-2	Fair	Fair	Low	21-40	~16 trees. 4x Blackwood, rest eucalypts. West of Health Centre.	18/06/2021			Community Health Centre	2	No
G2	<i>Eucalyptus sp.</i>	Gum Tree	Young	Australian native	1-3	3-4	2-3	1-2	Fair	Fair	Low	21-40	~4 trees. West of Health Centre, north of carpark.	18/06/2021			Community Health Centre	2,4	No
G3	<i>Acacia sp.</i> , <i>Eucalyptus sp.</i> , <i>Parrotia persica</i>	Wattle Tree, Gum Tree, Persian Ironwood	Young	Australian native;Exotic deciduous	1-3	3-4	2-6	1-2	Fair to Poor	Fair to Poor	Low	11-20	~13 trees. 5x Eucs longer ULE. Between two buildings of Health Centre. Difficult growing conditions	18/06/2021			Community Health Centre	2,4	No
G4	<i>Ailanthus altissima</i>	Tree of Heaven	Semi-mature	Exotic deciduous	6	10	5	2	Fair to Poor	Poor	Very Low	1-5	~55 trees. Suckering thicket of very weedy species - main tree removed	15/06/2021			Elizabeth Street walk-ups	1	No

Appendix 2: Tree Location Plan

Refer to the following five (5) pages.



- LEGEND**
- Arboricultural Rating**
- ◆ Mod-A
 - Mod-B
 - Mod-C
 - Low
 - ▼ Very Low
 - Subject to City of Yarra Local Law (underlined)
 - ▭ Tree Group - Very Low
- Protection Zones**
- TPZ (ULE > 10 yrs)
 - TPZ (ULE < 10 yrs)
 - SRZ
 - ⊠ Surveyed tree not found



NOTES
 Supplied feature survey outdated (from 2011); features not all current

Refer to separate report (KTA)

APPENDIX 2
TREE LOCATIONS AND PROTECTION ZONES

PROJECT
 North Richmond Masterplan

TL REF. 011189	MAP NO. 1 / 5
CLIENT MGS Architects	DATE 2021-07-29

DATA SOURCES
 Aerial — Nearmap 2021-03-11
 Feature survey — Reeds Consulting 21900 rev A dated 2011-11-21

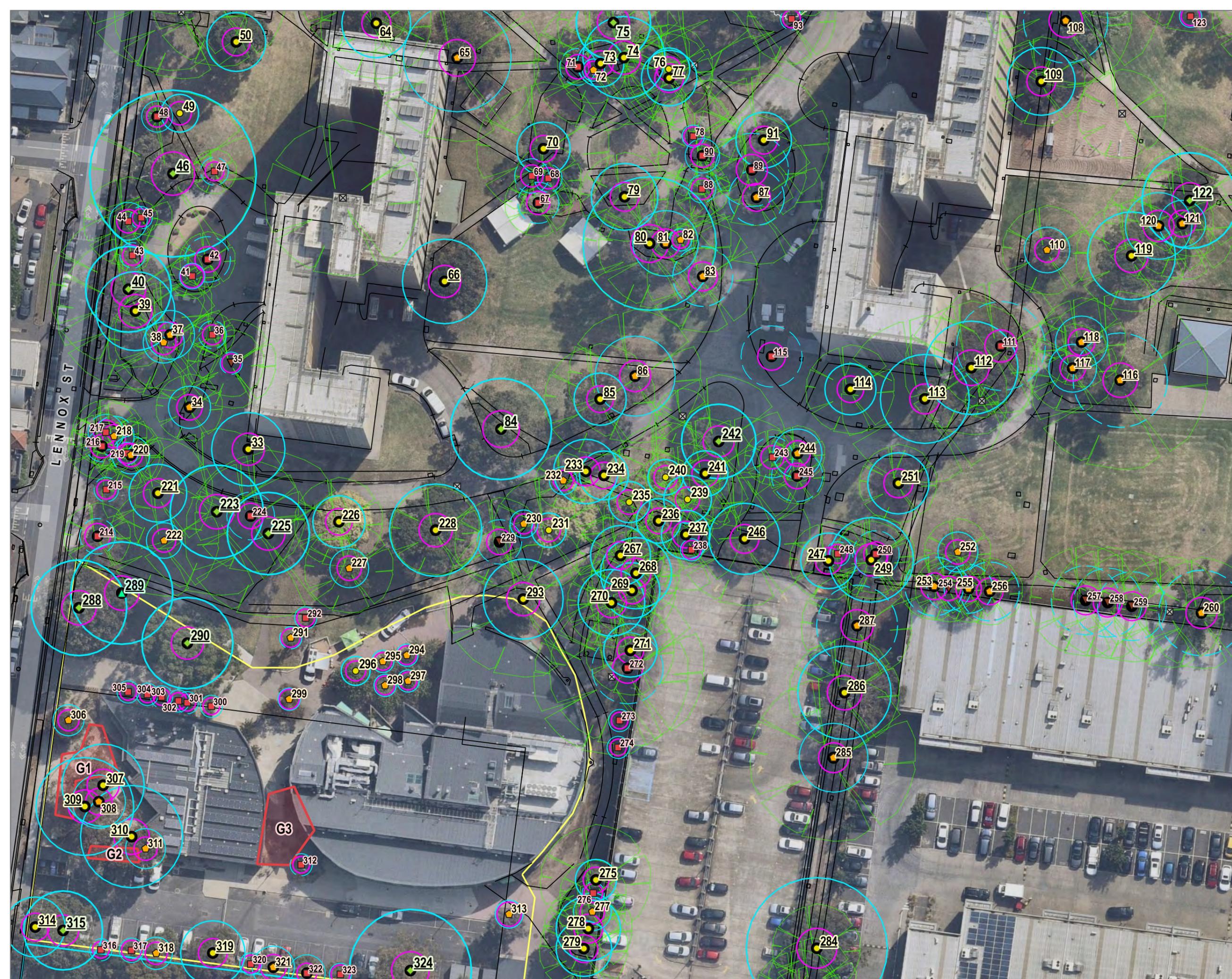
TREE LOCATION DISCLAIMER
 Tree locations based on feature survey

COORDINATE REFERENCE SYSTEM
 EPSG:28355 | GDA 94 MGA Zone 55



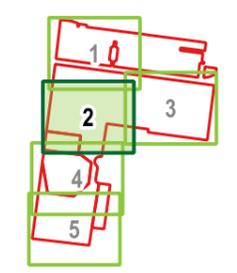
TREELOGIC PTY LTD 4 / 21 Eugene Tce
 ABN: 95 080 021 610 Ringwood, VIC
 TEL: 1300 656 926 Australia 3134





LEGEND

- Arboricultural Rating**
- ▲ High
 - ◆ Mod-A
 - Mod-B
 - ◆ Mod-C
 - Low
 - ▼ Very Low
 - Subject to City of Yarra Local Law (underlined)
 - Tree Group - Low
- Protection Zones**
- TPZ (ULE > 10 yrs)
 - TPZ (ULE < 10 yrs)
 - SRZ



NOTES
 Supplied feature survey outdated (from 2011); features not all current

**APPENDIX 2
 TREE LOCATIONS
 AND PROTECTION
 ZONES**

PROJECT
 North Richmond Masterplan

TL REF. 011189	MAP NO. 2 / 5
CLIENT MGS Architects	DATE 2021-07-29

DATA SOURCES
 Aerial — Nearemap 2021-03-11
 Feature survey — Reeds Consulting
 21900 rev A dated 2011-11-21

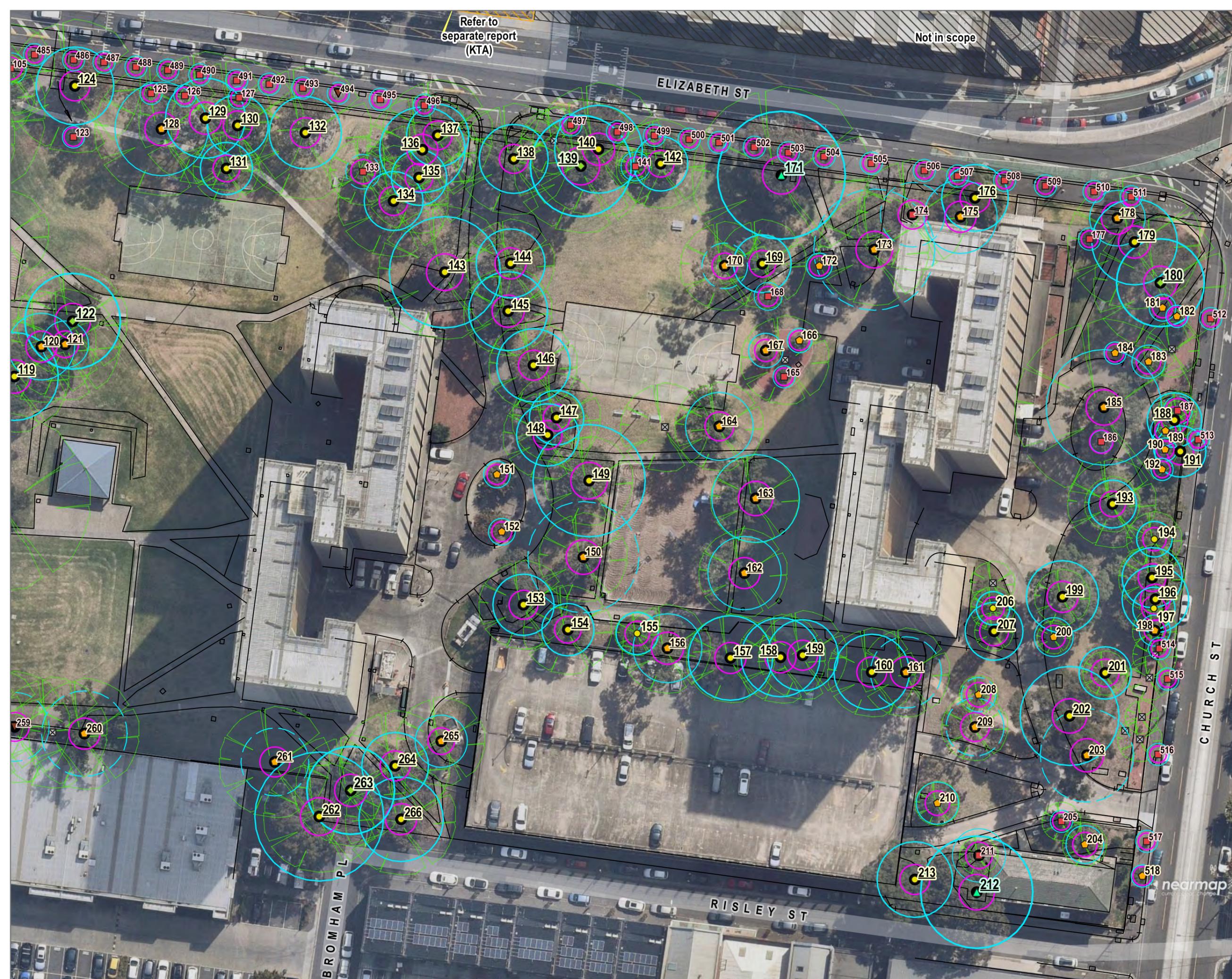
TREE LOCATION DISCLAIMER
 Tree locations based on feature survey

COORDINATE REFERENCE SYSTEM
 EPSG:28355 | GDA 94 MGA Zone 55



TREELOGIC PTY LTD 4 / 21 Eugene Tce
 ABN: 95 080 021 610 Ringwood, VIC
 TEL: 1300 656 926 Australia 3134

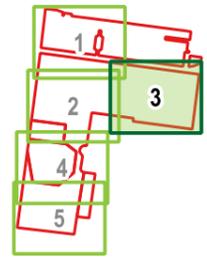




LEGEND

- Arboricultural Rating**
- ▲ High
 - ◆ Mod-A
 - Mod-B
 - ◆ Mod-C
 - Low
 - ▼ Very Low
 - Subject to City of Yarra Local Law (underlined)

- Protection Zones**
- TPZ (ULE > 10 yrs)
 - TPZ (ULE < 10 yrs)
 - SRZ
 - ⊠ Surveyed tree not found



NOTES
 Supplied feature survey outdated (from 2011); features not all current

**APPENDIX 2
 TREE LOCATIONS
 AND PROTECTION
 ZONES**

PROJECT
 North Richmond Masterplan

TL REF. 011189	MAP NO. 3 / 5
CLIENT MGS Architects	DATE 2021-07-29

DATA SOURCES
 Aerial — Nearemap 2021-03-11
 Feature survey — Reeds Consulting 21900 rev A dated 2011-11-21

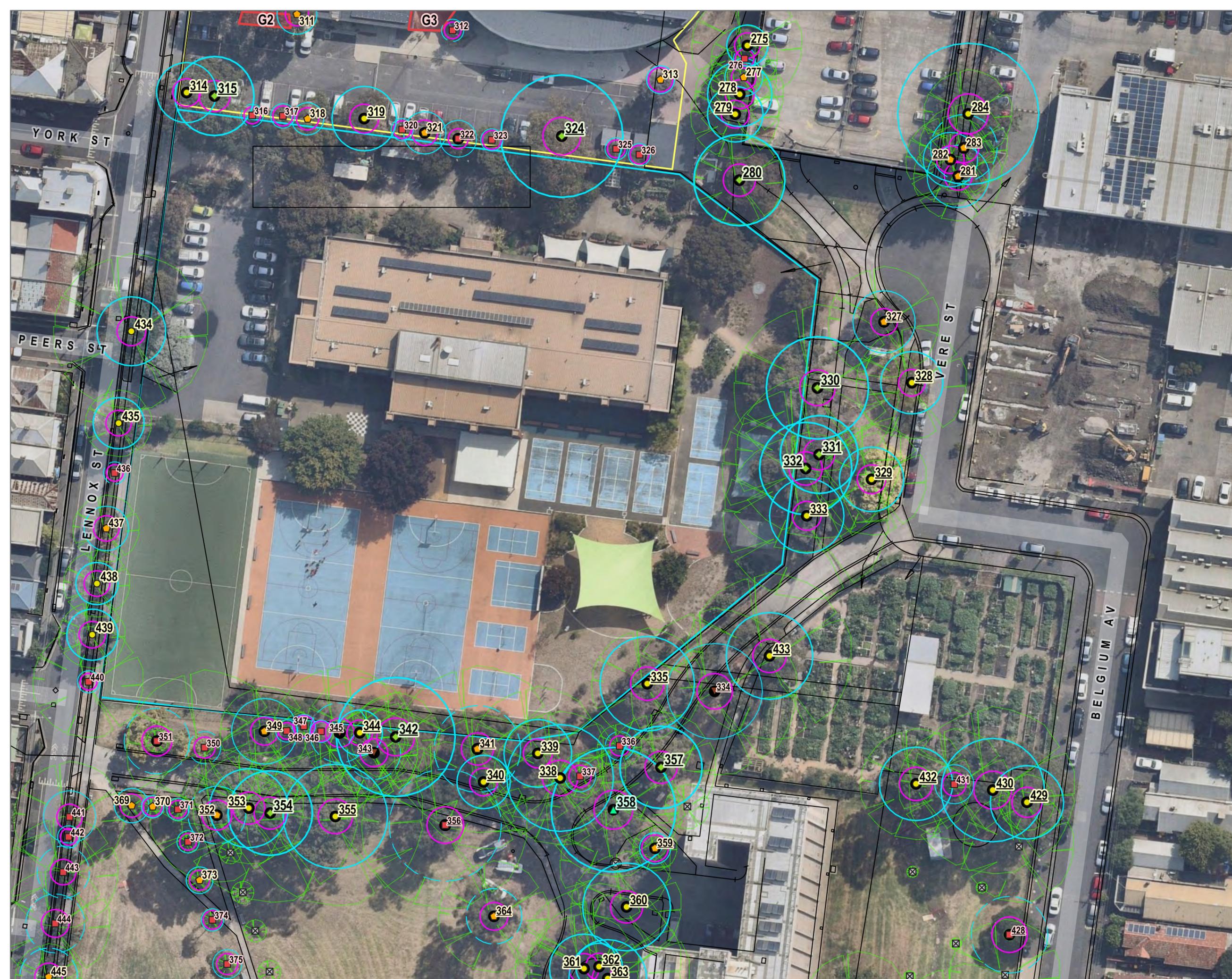
TREE LOCATION DISCLAIMER
 Tree locations based on feature survey

COORDINATE REFERENCE SYSTEM
 EPSG:28355 | GDA 94 MGA Zone 55



TREELOGIC PTY LTD 4 / 21 Eugene Tce
 ABN: 95 080 021 610 Ringwood, VIC
 TEL: 1300 656 926 Australia 3134





LEGEND

Arboricultural Rating

- ▲ High
- ◆ Mod-A
- Mod-B
- ◆ Mod-C
- Low
- ▼ Very Low
- Subject to City of Yarra Local Law (underlined)
- Tree Group - Low

Protection Zones

- TPZ (ULE > 10 yrs)
- TPZ (ULE < 10 yrs)
- SRZ

NOTES
 Supplied feature survey outdated (from 2011); features not all current

APPENDIX 2
TREE LOCATIONS AND PROTECTION ZONES

PROJECT
 North Richmond Masterplan

TL REF. 011189	MAP NO. 4 / 5
CLIENT MGS Architects	DATE 2021-07-29

DATA SOURCES
 Aerial — Nearmap 2021-03-11
 Feature survey — Reeds Consulting 21900 rev A dated 2011-11-21

TREE LOCATION DISCLAIMER
 Tree locations based on feature survey

COORDINATE REFERENCE SYSTEM
 EPSG:28355 | GDA 94 MGA Zone 55



TREELOGIC PTY LTD 4 / 21 Eugene Tce
 ABN: 95 080 021 610 Ringwood, VIC
 TEL: 1300 656 926 Australia 3134





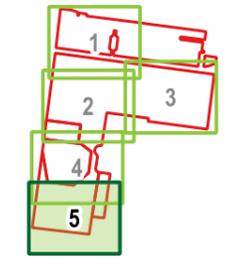
LEGEND

Arboricultural Rating

- ▲ High
- ◆ Mod-A
- Mod-B
- ◆ Mod-C
- Low
- ▼ Very Low
- Subject to City of Yarra Local Law (underlined)

Protection Zones

- TPZ (ULE > 10 yrs)
- TPZ (ULE < 10 yrs)
- SRZ
- ⊠ Surveyed tree not found



NOTES
 Supplied feature survey outdated (from 2011); features not all current

**APPENDIX 2
 TREE LOCATIONS
 AND PROTECTION
 ZONES**

PROJECT
 North Richmond Masterplan

TL REF. 011189	MAP NO. 5 / 5
CLIENT MGS Architects	DATE 2021-07-29

DATA SOURCES
 Aerial — Nearmap 2021-03-11
 Feature survey — Reeds Consulting
 21900 rev A dated 2011-11-21

TREE LOCATION DISCLAIMER
 Tree locations based on feature survey

COORDINATE REFERENCE SYSTEM
 EPSG:28355 | GDA 94 MGA Zone 55



TREELOGIC PTY LTD 4 / 21 Eugene Tce
 ABN: 95 080 021 610 Ringwood, VIC
 TEL: 1300 656 926 Australia 3134



Appendix 3: Tree Images

Elizabeth Street



Image 1: Trees 1-5 (rear to front) along Lennox Street, looking north, showing varying degrees of crown bias away from buildings. These trees will experience an acute and significant change in wind loads after the buildings are demolished.



Image 2: Closeup of Trees 1 and 2, facing southwest. Trees 1-2 (Mod. B Yellow Box) appear to have slight characteristics of River Red Gum.

Tree Logic Pty Ltd
4/21 Eugene Terrace Ringwood VIC 3134



Image 3: Tree 7 (Mod. C Red Ironbark) in demolition area with no tree protection and likely compacted soil. It is unclear if the tree is to be retained.



Image 4: Tree 17, Mod. A Manna Gum near Elizabeth Street flats, facing west. Significant landscape value although recent localized dieback in lower crown. Should be retained with ongoing management.



Image 5: Tree 19, Mod. A Red Ironbark south of Elizabeth Street flat, facing northeast. Tree is growing in relatively constrained space but no major infrastructure damage observed.



Image 6: Tree 20, Mod. B Yellow Box north of Elizabeth Street flat, facing east. Tree has been recently heavily pruned over flats, though still over-extended in east/west direction.



Image 7: Tree 25, Mod. C London Plane near Elizabeth St flats playground. Tree could be of higher amenity value but more growing space is desirable. Crown maintenance and some structural pruning recommended.



Image 8: Trees 21-24, Mod. B/C Honey Locust near Elizabeth Street flats, facing north. If retained, trees are strongly recommended to be retained as a group despite individual differences in ratings.



Image 9: Trees 28 (Mod. B London Plane) and 29 (Mod. A Desert Ash) near Elizabeth Street flats, facing west. Tree 29 growing in constrained area but with remarkably good size, form and fair foliage/bud density.

Towers – Northwest



Image 10: Trees 51-53, Mod.B/Mod.A Spotted Gums northwest of towers along Lennox Street, facing south.



Image 11: Tree 40, Mod. A Spotted Gum along Lennox Street frontage facing southwest.



Image 12: Row of trees along Lennox Street frontage facing southeast, showing continuous visual canopy coverage, including Tree 46 (Mod.A Manna Gum) and Tree 40 (Mod.A Spotted Gum) as more prominent specimens.



60

Image 13: Tree 60, Mod. A River Red Gum along Elizabeth Street frontage, facing west.



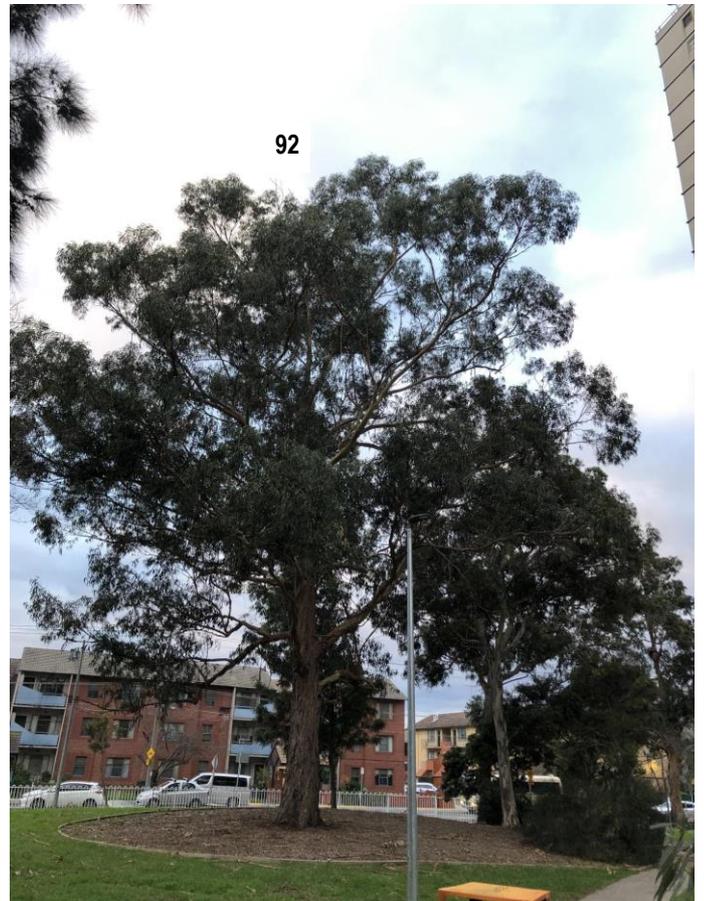
65

Image 14: Tree 65, Mod. C Southern Blue Gum adjacent to northwestern tower, facing south. Dense canopy despite fungal bracket (shown inset).



66

Image 15: Tree 66, Mod. B Southern Blue Gum adjacent to northwestern tower, facing north. No fungal brackets visually observed.



92

Image 16: Tree 92, one of two Mod. A Southern Blue Gums exhibiting above average condition although incipient fungal decay may not be ruled out. Facing north.



Image 17: Trees west of north-central tower including Trees 80 (Mod. B Southern Blue Gum, no fungal brackets visible) and Tree 83 (Mod.C Manna Gum), facing northeast.



Image 18: Trees 74 and 77, Mod. B River She-oak near north-western seating area, facing north.



Image 19: Tree 84, Mod. A River Red Gum south-east of northwestern tower block towards multistorey carpark. Facing west.



223

Image 20: Tree 223, Mod. A Spotted Gum south of northwestern tower block towards health centre. Facing northwest.



225

Image 21: Tree 225 Mod. A Spotted Gum south of northwestern tower block towards health centre. Facing northwest. Acute forks may require pruning or cabling over time.

Towers – North-Central



Image 22: Trees 104-108 east of north-central block, facing west, Tree 106 (Mod.B London Plane), Tree 107 (Mod. A River Red Gum) and Tree 108 (Mod.C Grey Poplar).

108

107

106

104



Image 23: Trees 111 (Low-rated Southern Blue Gum), 112 (Mod.B-rated Southern Blue Gum) and 113 (Mod.B-rated Manna Gum) southeast of north-central tower block. Facing west.



Image 24: Trees 119-122 in north-central open space, facing south. Including Trees 119 (Mod.B Spotted Gum) and 122 (Mod.A Swamp She-oak). Trees to rear of image are declining/lopped Grey Poplars north of multistorey carpark (257-260).



116

Image 25: Tree 116, Mod.C-rated Southern Blue Gum in north-central open space facing south, inset shows past decay and fungal brackets at old tearout site. Tree has dense but reduced canopy with tip dieback.



124

Image 26: Tree 124, Mod.B-rated Red Ironbark in north-central open space along Elizabeth Street frontage. Facing west.



128

Image 27: Tree 128, Mod.B Red Ironbark in north-central open space along Elizabeth Street frontage, facing east.



132

Image 28: Tree 132, Mod.B Sydney Blue Gum in north-central open space along Elizabeth Street frontage, facing west.



Image 29: Corridor of Mod. B trees north of north-central tower, facing west. Elizabeth Street to left of image. Trees 134 and 135 (River Red Gum), 136 (Yellow Box) and 137 (Sydney Blue Gum).

Towers – North-East



Image 30: Corridor of Mod. B trees northeast of north-central tower, facing north. Elizabeth Street to rear of image. Trees 143 (River Red Gum), 145 (Red Box) and 146 (Red Ironbark).



Image 31: Trees 139 (Mod. A Spotted Gum) and 140 (Mod. B River She-oak) along north-east Elizabeth Street frontage, facing northwest.

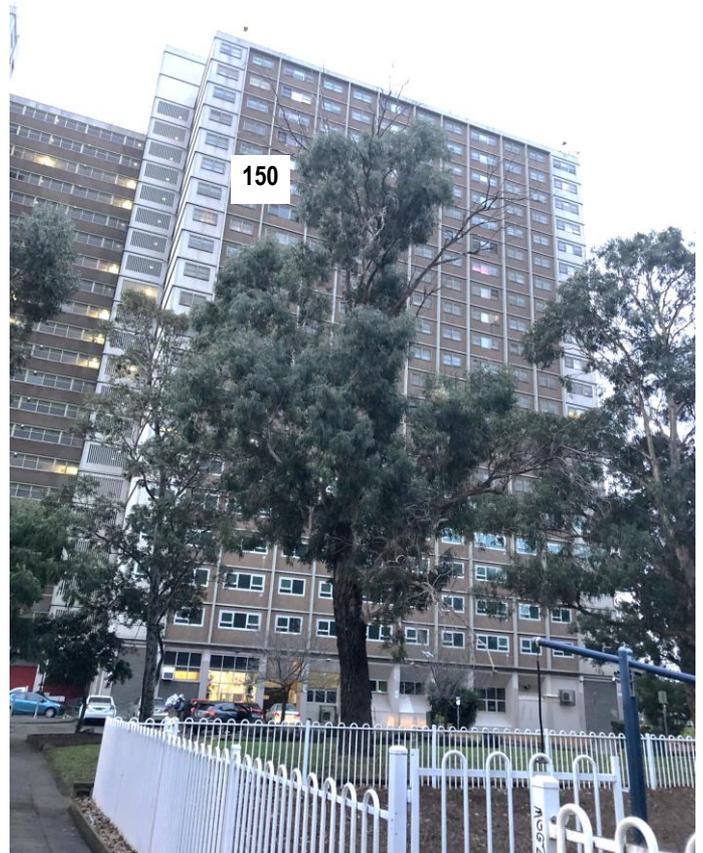


Image 32: Tree 150, Mod.C-rated Manna Gum with peripheral dieback and significantly reduced but otherwise dense crown. Tree appears to be senescing and could be retained with crown reduction.



Image 33: Trees 162-164, Mod.C Grey Poplars near north-eastern playground. While trees are better specimens the species is ultimately not ideal for long-term retention due to structural and heat tolerance concerns.



Image 34: Tree 171, High-rated Sydney Blue Gum along north-eastern Elizabeth Street frontage, facing northwest.



Image 35: Tree 173, Mod.C-rated Southern Blue Gum west of northeastern tower block, facing east. Dieback (red arrow) associated with fungal bracket and decay to south of trunk.

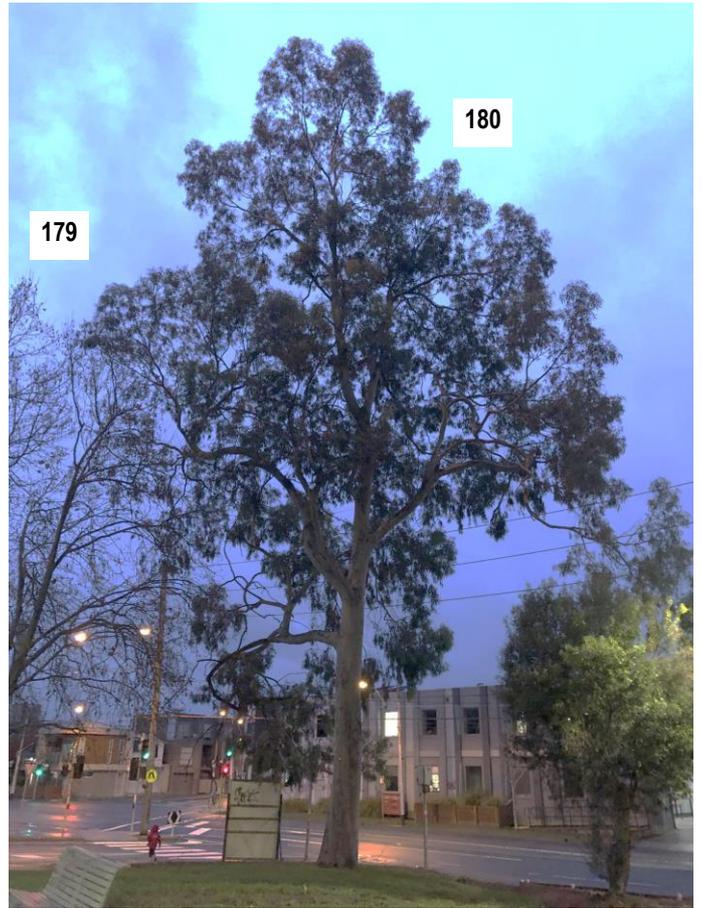


Image 36: Tree 180, Mod.A Spotted Gum on north-eastern corner of Elizabeth and Church Streets, facing northeast.

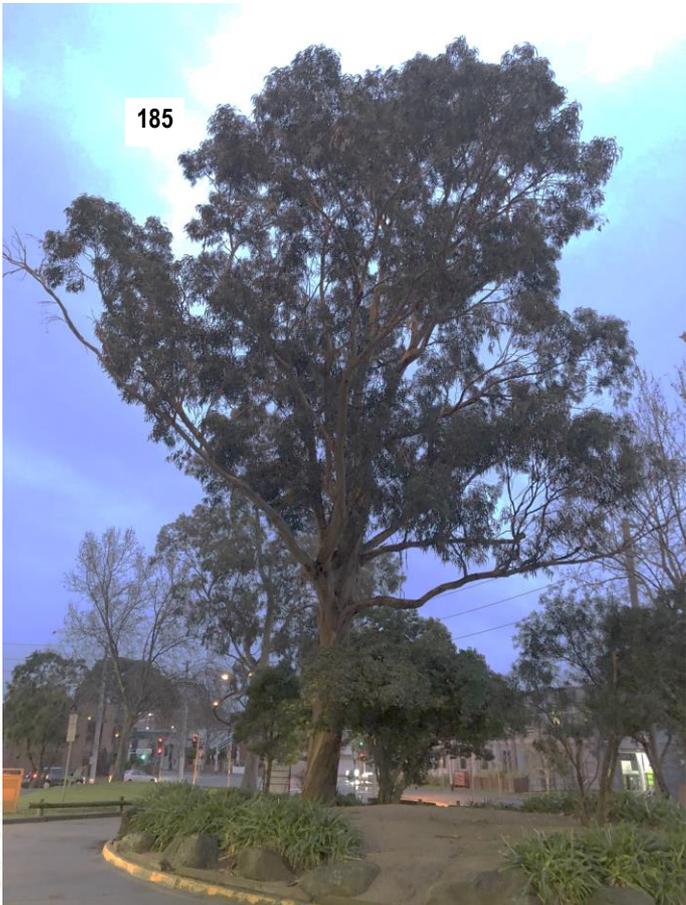


Image 37: Tree 185, Mod.C Southern Blue Gum with lower canopy deadwood and past reduction pruning; decay considered likely



Image 38: Tree 212, High-rated Sydney Blue Gum – in highly constrained area but marked contribution to landscape with some pavement heaving but no significant/dangerous visible infrastructure damage.

Towers – Multistorey Carparks

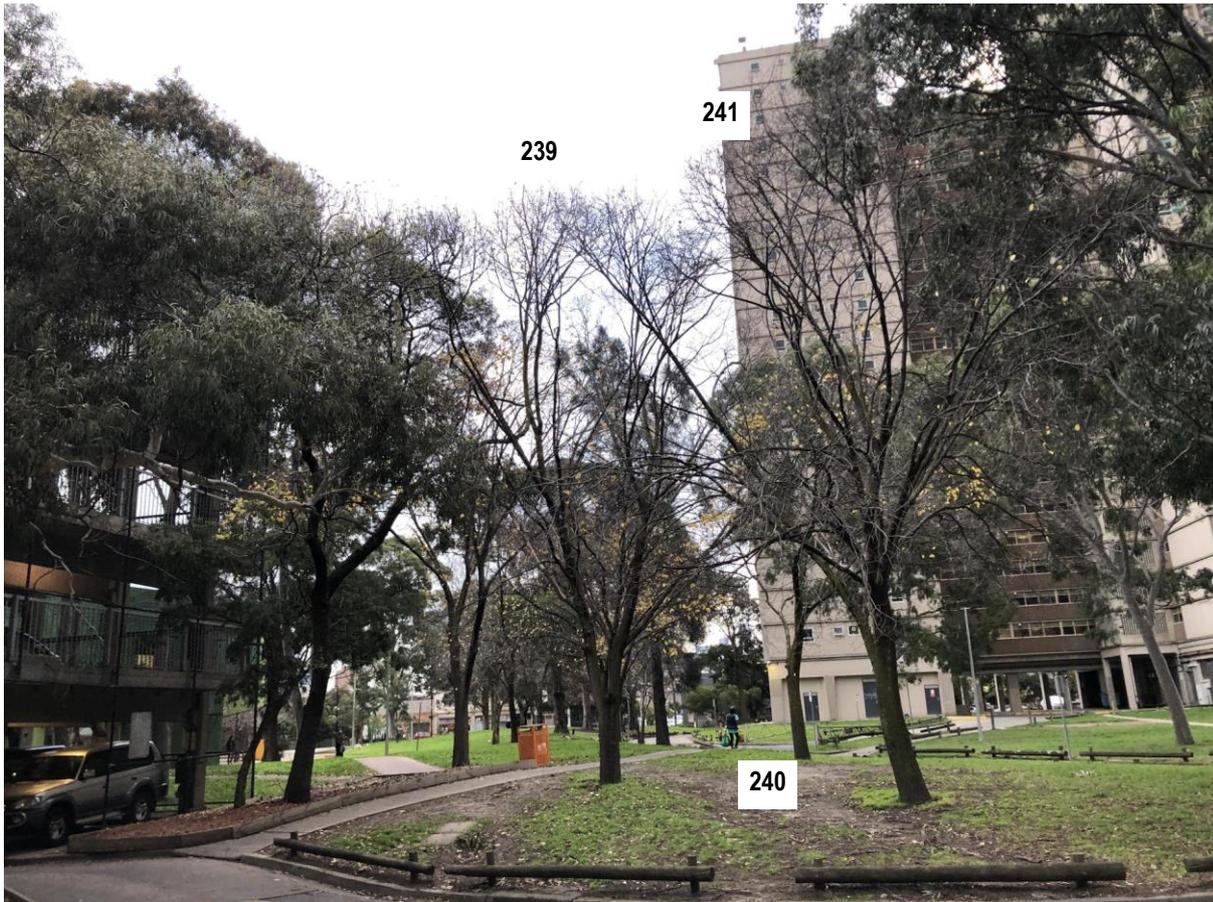


Image 39: Grove of Mod.B Golden Elms (including Trees 239-240) northwest of multistorey carpark, facing west.



Image 40: Tree 242, Mod. A Spotted Gum north of multistorey carpark, facing west.

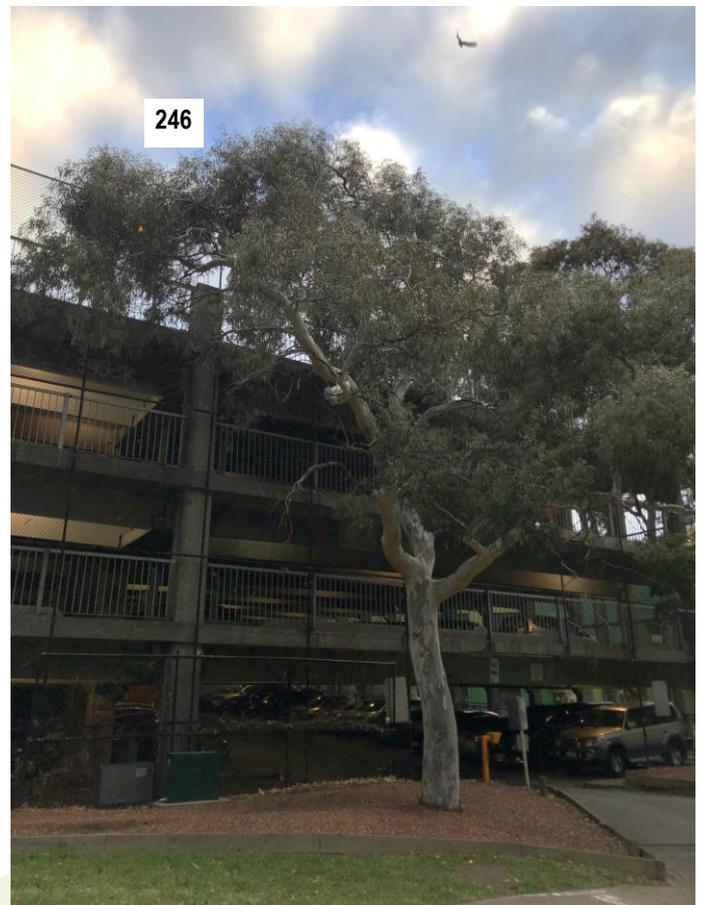


Image 41: Tree 246, Mod. B Brittle Gum north of multistorey carpark, facing southwest. Some canopy overhanging top floor of carpark.



Image 42: Trees 257-260, lopped and declining Grey Poplars north of central carpark/building. It is assumed that Trees 257-259 are to be eventually removed due to ongoing branch failures which is not uncommon in the species.



Image 43: Tree 262, Mod.B Spotted Gum in narrow space adjacent to or within neighbouring property cnr Bromham Place/Risley Street, facing west



Image 44: Tree 263, Mod.A River She-oak west of multistorey carpark, facing north.



Image 45: Tree 264 Mod. B Red Box west of multistorey carpark, facing south.

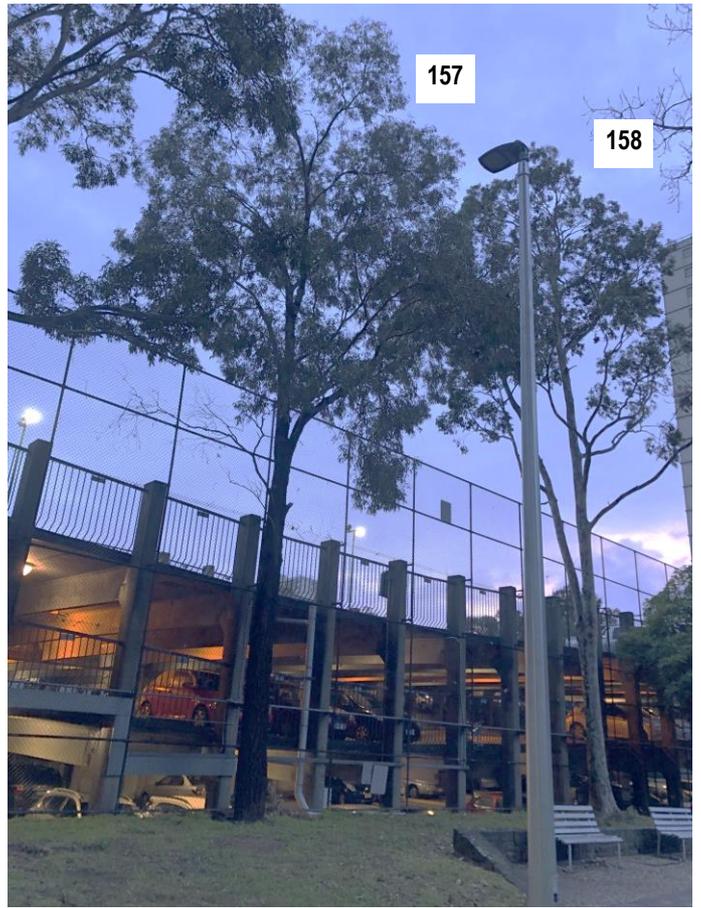


Image 46: Trees 157-158 Mod B Red Ironbark and Spotted Gum north of multistorey carpark, facing southwest.



Image 47: Trees 267-272, mainly Mod.B Spotted Gums northwest of western multistorey carpark, east of health centre. Facing east.



Image 48: Trees 275-279, row of trees southwest of western carpark, southeast of health centre. Including Mod. B trees 275 (Prickly-leaved Paperbark), 278 and 279 (River She-oak). Facing east.



Image 49: Tree 280, Mod. A Narrow-leaved Black Peppermint south of western multistorey carpark, near periphery of primary school, facing west.

Tree Logic Pty Ltd
4/21 Eugene Terrace Ringwood VIC 3134

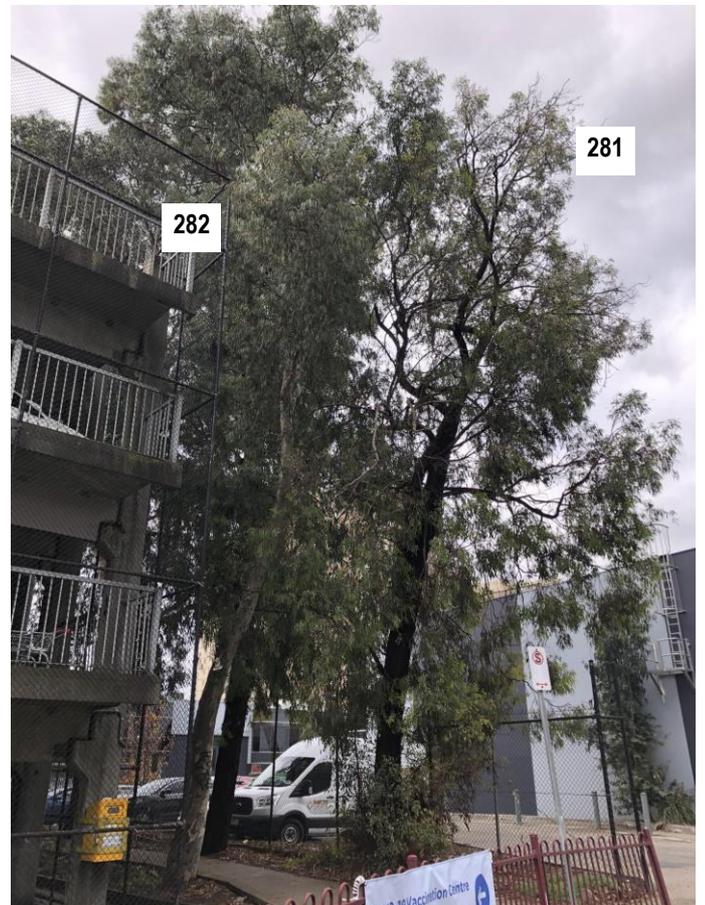


Image 50: Trees 281 (Mod.C Red Ironbark) and 282 (Mod.C Spotted Gum) southeast of western multistorey carpark in narrow site, facing northeast.

Tree Report 011189 | North Richmond Masterplan xviii
Appendix 3: Tree Images - Towers – Multistorey Carparks



Image 51: Trees southeast of western multistorey carpark in narrow site – Tree 283 (Mod. C Red Ironbark) with recent failures. Facing south.



Image 52: Tree 284, Mod. B Southern Blue Gum southeast of western multistorey carpark, facing south. Remarkable condition despite constraints.



Image 53: Tree 286, Mod. B Lemon-scented Gum northeast of western multistorey carpark, with limbs extending into neighbouring property. Facing south.

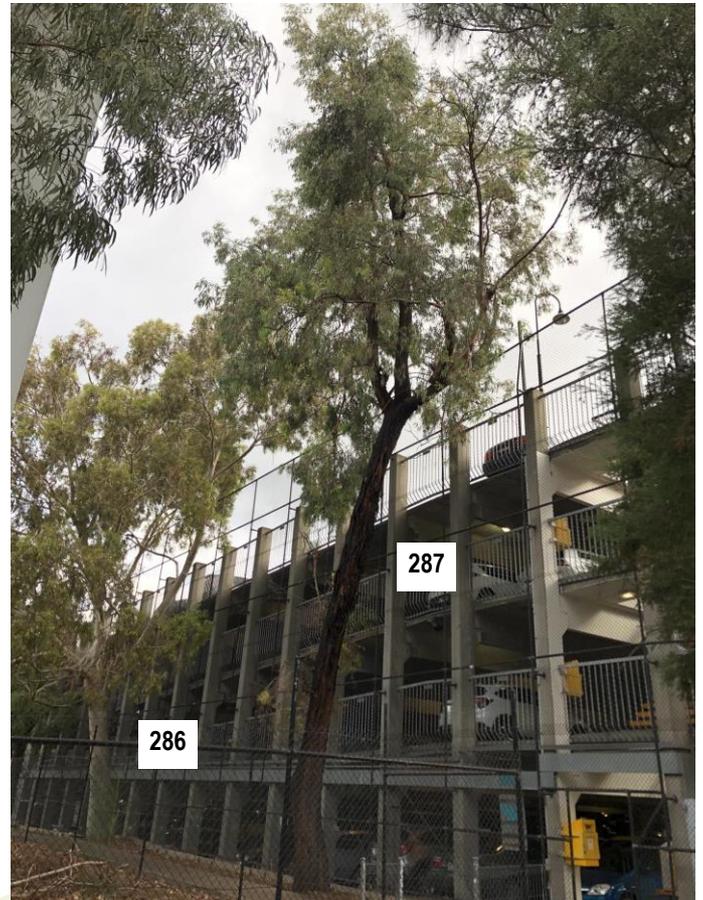


Image 54: Tree 287, Mod.C Red Ironbark northeast of western multistorey carpark, top-heavy form with previous failures. Facing southwest.

Community Health Centre



Image 55: Trees 288 (Mod. A Southern Blue Gum) and 289 (High-rated River Red Gum) northwest of Health Centre along Lennox St frontage. Facing west. Trees are well located, in superior condition and highly significant in landscape.



Image 56: Tree 288, one of two Mod.A rated Southern Blue Gums. Facing northeast. Superior canopy density and form, no fungal brackets observed.



Image 57: Tree 290, Mod. A-rated Sydney Blue Gum northwest of Health Centre, facing south.



Image 58: Trees 309-310 (Mod. B Red Ironbark) and 311 (Mod. C Spotted Gum), cluster of trees west of Heath Centre. Facing north.



Image 59: Tree 293 (Mod. B River She-oak) northeast of Heath Centre, facing east.



Image 60: Tree 315 (Mod. A Sydney Blue Gum) in Health Centre carpark and northern boundary of primary school, facing southwest.



Image 61: Row of trees on southern edge of Health Centre carpark, along northern boundary of primary school facing southwest. Including Tree 319 (Mod. B Red Box) and 321 (Mod.C Red Box). Lemon-scented Gums interplanted (e.g. Tree 320) generally less vigorous.



Image 62: Tree 324 (Mod. A River Red Gum), in larger planting area along southern edge of Health Centre carpark, adjacent to northern boundary of primary school. Tree recently showing signs of lerp/sooty mould but likely seasonal. Facing east.

Towers – South (Near School)



Image 63: Tree 327, Mod. C-rated Willow Myrtle northeast of school adjacent to Vere Street. Facing north. Canopy in fair condition with moderate amenity value however main stem has old, slowly progressing split. Cabling or bracing recommended to mitigate failure.



Image 64: Trees 329-333 northeast of primary school, including Mod. B Golden Elm in front (Tree 329), Mod. A Spotted Gums to rear (Trees 330-332) and Mod. C Red Ironbark (Tree 333). Facing west.



Image 65: Tree 334, Very Low-rated Spotted Gum east of school and west of community garden with snapped leader and limited management options. Facing north.



Image 66: Tree 335, Mod.B Red Ironbark east of school.



Image 67: Group of trees southeast of school, facing east, including Tree 340 (Mod. B Chinese Elm) and 341 (Mod. C Southern Blue Gum).

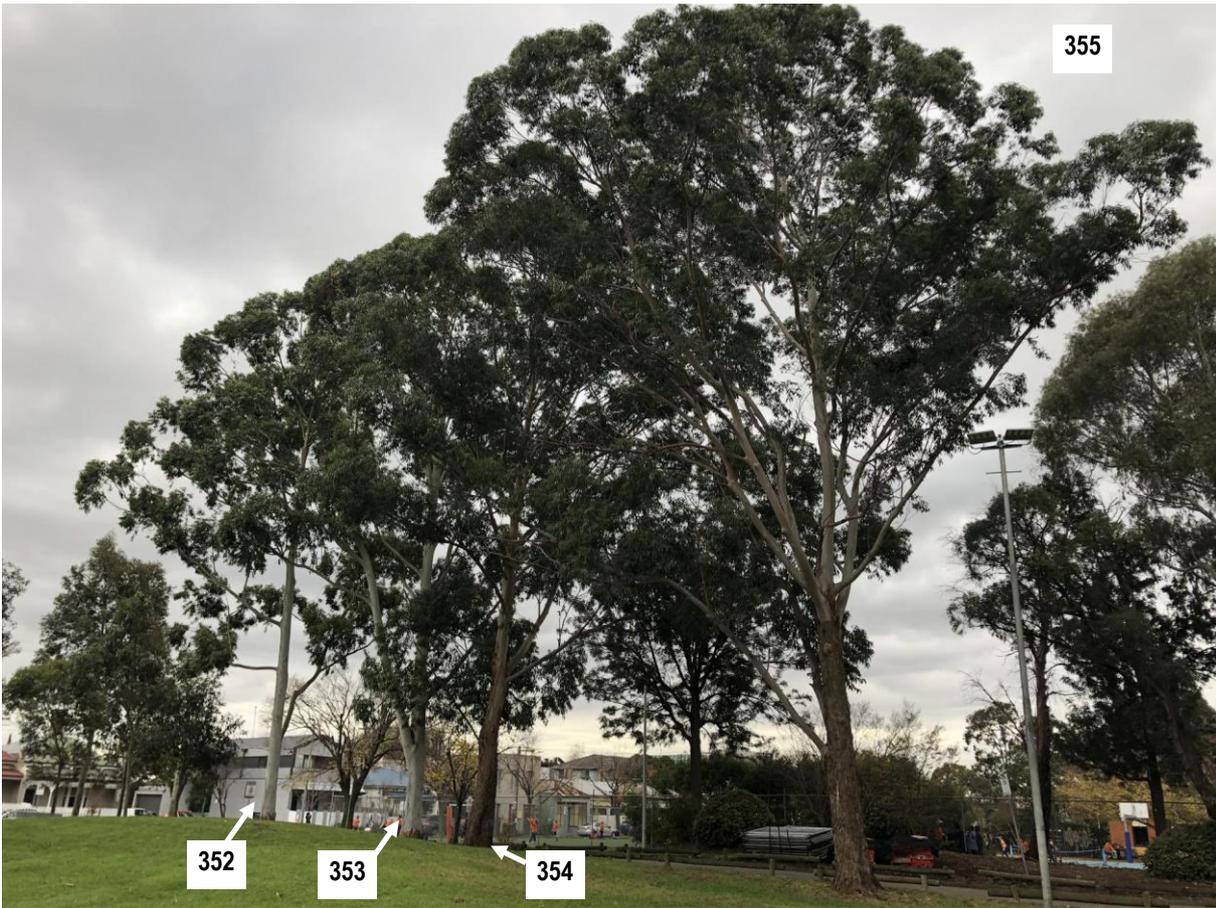


Image 68: Row of Sydney Blue Gums south of driveway along southern boundary of school, showing Trees 352 (Mod.C), 353 (Mod.B), 354 (Mod.A) and 355 (Mod.B). Facing northwest.



Image 69: Tree 342, Mod. A River Red Gum along southern boundary of primary school. Facing north.



Image 70: Tree 356, Southern Blue Gum south of driveway along southern boundary of primary school, crown reduced over road with apical dieback showing progression of fungal decay (brackets inset) in the species.



Image 71: Tree 357 (Mod. A River She-oak) southeast of primary school/northwest of southern tower, facing north.



Image 72: Tree 358 (High-rated River Red Gum), southeast of primary school/northwest of southern tower, facing west.

Towers – South



Image 73: Trees 361-363, Mod. B Spotted Gums west of southern tower, facing south.



Image 74: Tree 366, Mod. B Southern Blue Gum in southern open space, facing west. Fungal bracket observed; risk should be managed to preserve amenity while possible.

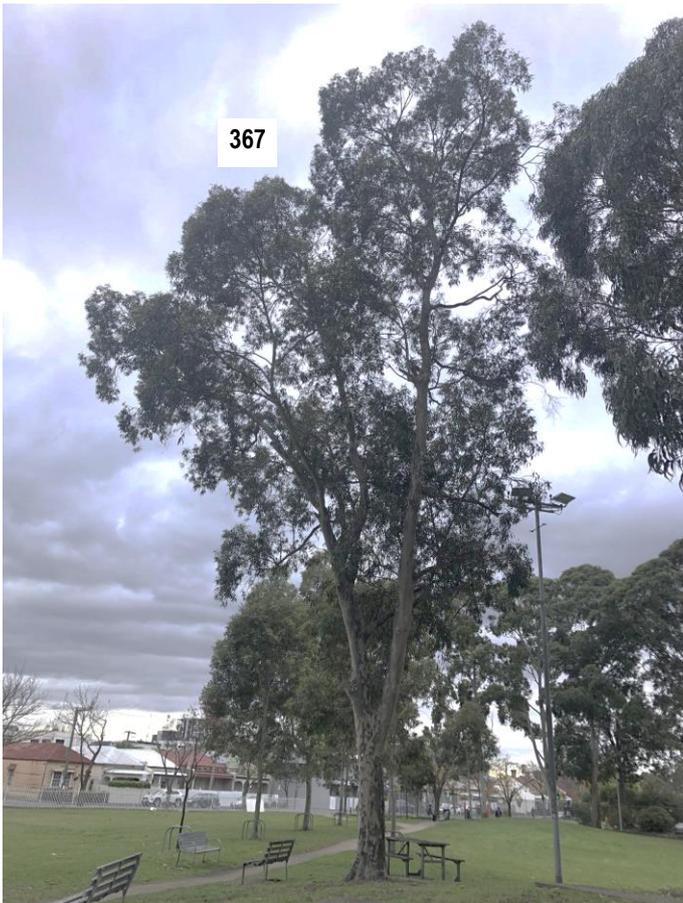


Image 75: Tree 367, Mod. B Spotted Gum in southern open space, facing north.



Image 76: Tree 368, Mod. C rated Spotted Gum in southern open space, facing northeast. Tree is significant in landscape in fair or better health however long-term canopy weight management may be an issue.



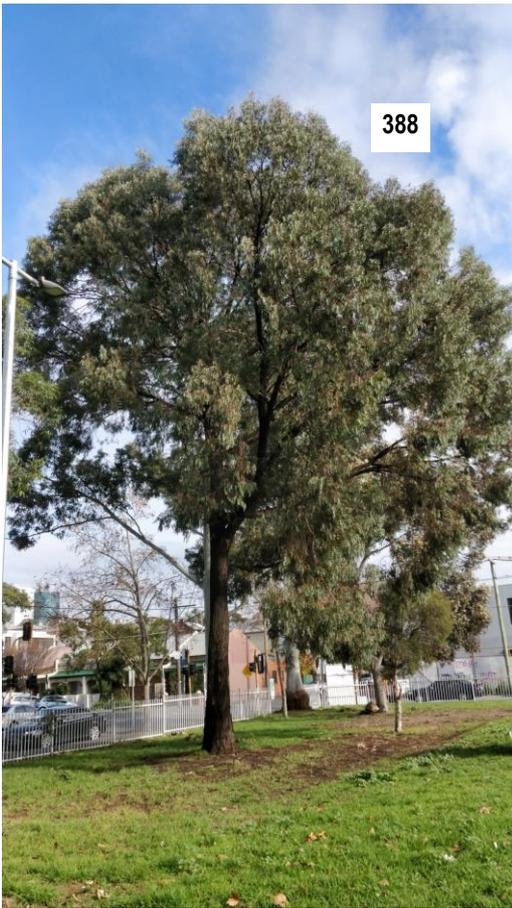
Image 77: Tree 383, Low-rated Sydney Blue Gum at corner of Lennox and Highett Street. Tree has good canopy health and significant landscape value however extent of fungal decay at base seems significant.

Tree Logic Pty Ltd
4/21 Eugene Terrace Ringwood VIC 3134



Image 78: Base of Tree 383 showing fungal brackets and decay/hollows. Tree has developed substantial response growth and could in fact have reasonable structural integrity; the decay may have been present for many years. However, without further inspection it is difficult to determine the true progression of decay.

Further investigations are recommended as retention of the tree could be desirable from a landscape perspective, and could be supported while the canopy remains healthy and intact; however, consequences of tree failure at the base would be very significant.



388

Image 79: Tree 388, Mod. B Red Ironbark in southwest open space near Highett Street frontage.



393

Image 80: Tree 393, Low-rated Southern Blue Gum in southwest open space showing advanced fungal decay symptoms in the species.



396

Image 81: Tree 396, Mod. A rated Red Box in southern open space along Highett Street frontage. Facing east.



397

Image 82: Tree 397, Mod. C Southern Blue Gum in southern open space near Highett Street frontage. Fungal brackets at past failure point. Facing southeast.



Image 83: Tree 399, Mod. B Southern Blue Gum northeast of southern playground, immediately next to pavement causing heaving. No fungal brackets observed. Facing north



Image 84: Tree 409, Mod. B Sydney Blue Gum in southern open space, facing west.

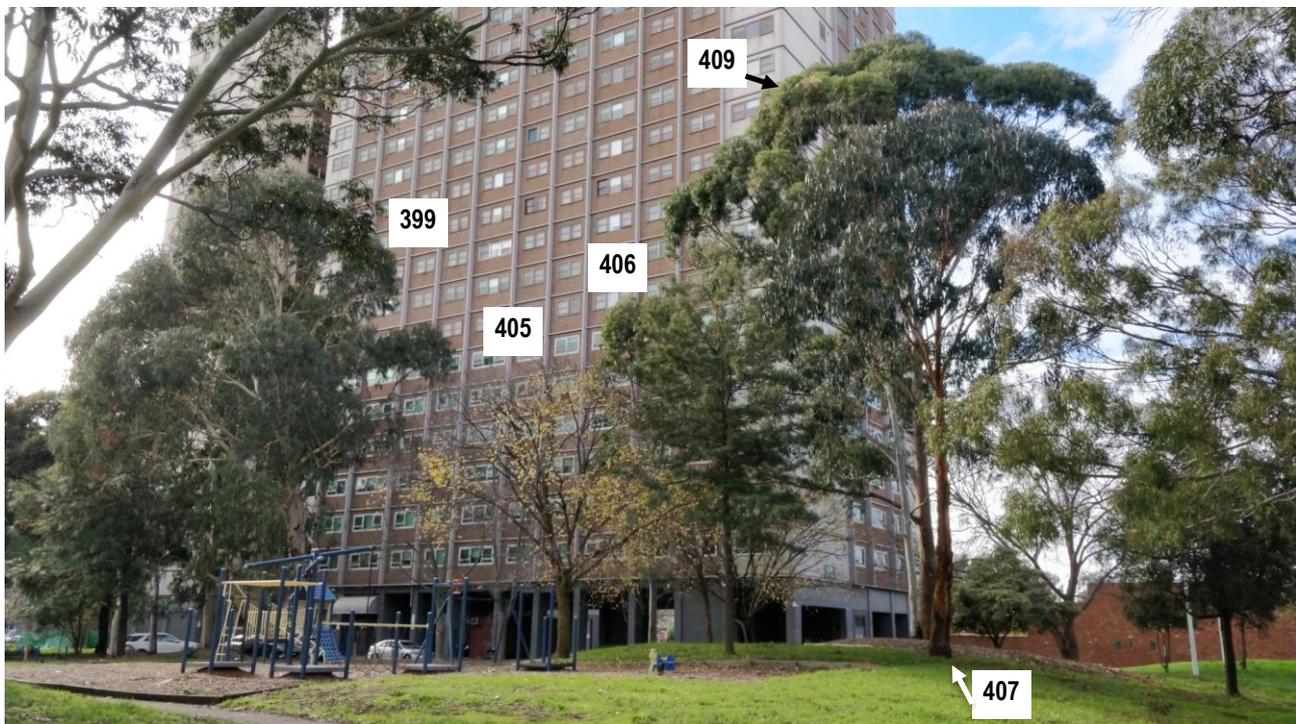


Image 85: Trees southwest of southern tower block around playground, including Tree 399 (Mod. B Southern Gum), 405 (Mod. B Golden Elm), 406 (Mod. C Silky Oak), 407 (Low-rated Southern Blue Gum) and 409 to rear (Mod. B Sydney Blue Gum).



Image 86: Tree 414, Mod. B River Red Gum in southern open space along Highett Street frontage, facing east. Over-extended limb over road recommended for pruning.



Image 87: Tree 416 to front showing Spotted Gum with multiple failures in southern open space, facing southeast.



Image 88: Trees south of southern tower block, facing west, showing mixture of tree types and sizes. Including Tree 403 (Mod. B Golden Elm), 417 (Mod. B Chinese Elm), and 409 (Mod. B Sydney Blue Gum) and 414 (Mod. B River Red Gum) to rear.

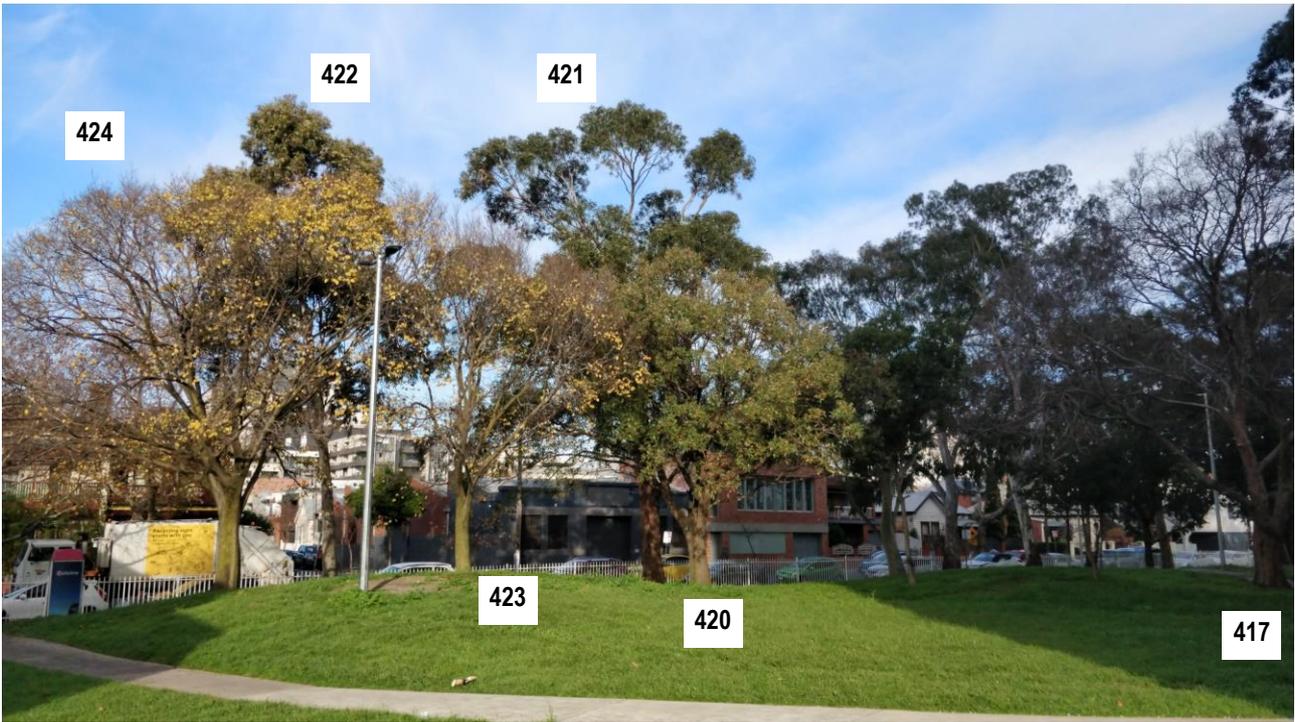


Image 89: Trees south of southern tower block along Highett Street frontage, facing southwest. Trees 420 (Mod. B English Oak), 423 (Mod. C Golden Elm), 424 (Mod. B Golden Elm), and to the rear, 421 (Mod. C Southern Blue Gum) and 422 (Mod. B Spotted Gum).



Image 90: Tree 421, Mod. C Southern Blue Gum along Highett Street frontage, facing west



Image 91: Closeup of Tree 421 showing fungal bracket at apex – top down decay and dieback likely



Image 92: Trees to south of community garden, west of Belgium Avenue, facing north. Mod. B trees include Tree 429 (Lemon-scented Gum), 430 and 431 (Sydney Blue Gum).



Image 93: Tree 427, Mod. B London Plane east of southern tower block, facing northwest.



Image 94: Tree 433, Mod. B Spotted Gum at northwestern corner of community garden, north of southern tower block. Facing south.

Appendix 4: Arboricultural Descriptors (February 2019)

© Tree Logic 2019

Note that not all of the described tree descriptors may be used in a tree assessment and report. The assessment is undertaken with regard to contemporary arboricultural practices and consists of a visual inspection of external and above-ground tree parts.

a. Tree Condition

The assessment of tree condition evaluates factors of health and structure. The descriptors of health and structure attributed to a tree evaluate the individual specimen to what could be considered typical for that species growing in its location under current climatic conditions. For example, some species can display inherently poor branching architecture, such as multiple acute branch attachments with included bark. Whilst these structural defects may technically be considered arboriculturally poor, they are typical for the species and may not constitute an increased risk of failure. These trees may be assigned a structural rating of fair-poor (rather than poor) at the discretion of the assessor.

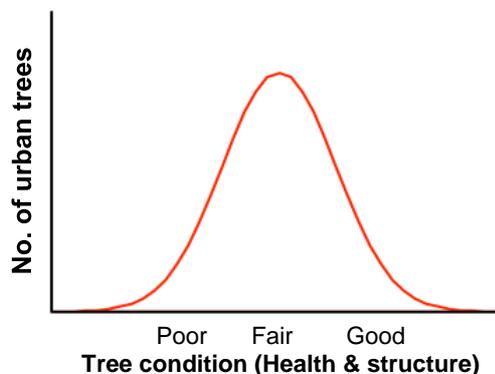


Diagram 1: Indicative normal distribution curve for tree condition

Diagram 1 provides an indicative distribution curve for tree condition to illustrate that within a normal tree population the majority of specimens are centrally located within the condition range (normal distribution curve). Furthermore, that those individual trees with an assessed condition approaching the outer ends of the spectrum occur less often.

b. Tree Name

Provides botanical name, (genus, species, variety and cultivar) according to accepted international code of taxonomic classification, and common name.

c. Tree Type

Describes the general geographic origin of the species and its type e.g. deciduous or evergreen.

Category	Description
Indigenous	Occurs naturally in the area or region of the subject site. Remnant.
Victorian native	Occurs naturally within some part of the State of Victoria (not exclusively) but is not indigenous (component of EVC benchmark). Could be planted indigenous trees.
Australian native	Occurs naturally within Australia but is not a Victorian native or indigenous
Exotic deciduous	Occurs outside of Australia and typically sheds its leaves during winter
Exotic evergreen	Occurs outside of Australia and typically holds its leaves all year round
Exotic conifer	Occurs outside of Australia and is classified as a gymnosperm
Native conifer	Occurs naturally within Australia and is classified as a gymnosperm
Native Palm	Occurs naturally within Australia. Woody monocotyledon
Exotic Palm	Occurs outside of Australia. Woody monocotyledon

d. Height and Width

Indicates height and width of the individual tree; dimensions are expressed in metres. Crown heights are measured with a height meter where possible. Due to the topography of some sites and/or the density of vegetation it may not be possible to do this for every tree. Tree heights may be estimated in line with previous height meter readings in conjunction with assessor's experience. Crown widths are generally paced (estimated) at the widest axis or can be measured on two axes and averaged. In some instances the crown width can be measured on the four cardinal direction points (North, South, East and West).

Crown height, crown spread are generally recorded to the nearest half metre (crown spread would be rounded up) for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m. Estimated dimensions (e.g. for off-site or otherwise inaccessible trees where accurate data cannot be recovered) shall be clearly identified in the assessment

data.

e. Trunk diameters

The position where trunk diameters are captured may vary dependent on the requirements of the specific assessment and an individual trees specific characteristics. DBH is the typical trunk diameter captured as it relates to the allocation of tree protection distances. The basal trunk diameter assists in the allocation of a structural root zone. Some municipalities require trunk diameters be captured at different heights, with 1.0 m above grade being a common requirement. The specific planning schemes will be checked to ascertain requirements.

Stem diameters shall be recorded in centimetres, rounded to the nearest 1 cm (0.01 m).

Diameter at Breast Height (DBH)

Indicates the trunk diameter (expressed in centimetres) of an individual tree measured at 1.4m above the existing ground level or where otherwise indicated, multiple leaders are measured individually. Plants with multiple leader habit may be measured at the base. The range of methods to suit particular trunk shapes, configurations and site conditions can be seen in Appendix A of Australian Standard *AS 4970-2009 Protection of trees on development sites*. Measurements undertaken using foresters tape or builders tape.

Basal trunk diameter

The basal dimension is the trunk diameter measured at the base of the trunk or main stem(s) immediately above the root buttress. Used to ascertain the Structural Root Zone (SRZ) as outlined in AS4970.

f. Health

Assesses various attributes to describe the overall health and vitality of the tree.

Category	Vitality, Extension growth	Decline symptoms, Deadwood, Dieback	Foliage density, colour, size, intactness	Pests and or disease
Good	Above typical. Excellent. Full canopy density	Negligible	Better than typical	Negligible
Fair	Typical vitality. >80% canopy density	Minor or expected. Little or no dead wood	Typical. Minor deficiencies or defects could be present.	Minor, within damage thresholds
Fair to Poor	Below typical - low vitality	More than typical. Small sub-branch dieback	Exhibiting deficiencies. Could be thinning, or smaller	Exceeds damage thresholds
Poor	Minimal - declining	Excessive, large and/or prominent amount & size of dead wood. Significant dieback	Exhibiting severe deficiencies. Thinning foliage, generally smaller or deformed	Extreme and contributing to decline
Dead	N/A	N/A	N/A	N/A

g. Structure

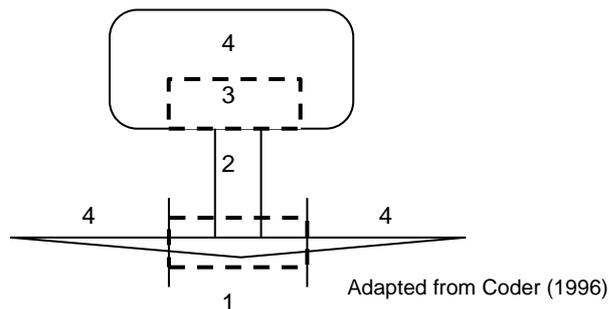
Assesses principal components of tree structure (Diagram 2).

Descriptor	Zone 1 - Root plate & lower stem	Zone 2 - Trunk	Zone 3 - Primary branch support	Zone 4 - Outer crown and roots
Good	No obvious damage, disease or decay; obvious basal flare / stable in ground	No obvious damage, disease or decay; well tapered	Well formed, attached, spaced and tapered. No history of failure.	No obvious damage, disease, decay or structural defect. No history of failure.
Fair	Minor damage or decay. Basal flare present.	Minor damage or decay	Generally, well attached, spaced and tapered branches. Minor structural deficiencies may be present or developing. No history of branch failure.	Minor damage, disease or decay; minor branch end-weight or over-extension. No history of branch failure.

Fair to Poor	Moderate damage or decay; minimal basal flare.	Moderate damage or decay; approaching recognised thresholds	Weak, decayed or with acute branch attachments; previous branch failure evidence.	Moderate damage, disease or decay; moderate branch end-weight or over-extension. Minor branch failure evident.
Poor	Major damage, disease or decay; fungal fruiting bodies present. Excessive lean placing pressure on root plate	Major damage, disease or decay; exceeds recognised thresholds; fungal fruiting bodies present. Acute lean. Stump re-sprout	Decayed, cavities or has acute branch attachments with included bark; excessive compression flaring; failure likely. Evidence of major branch failure.	Major damage, disease or decay; fungal fruiting bodies present; major branch end-weight or over-extension. Branch failure evident.
Very Poor	Excessive damage, disease or decay; unstable / loose in ground; altered exposure; failure probable	Excessive damage, disease or decay; cavities. Excessive lean. Stump re-sprout	Decayed, cavities or branch attachments with active split; failure imminent. History of major branch failure.	Excessive damage, disease or decay; excessive branch end-weight or over-extension. History of branch failure.

Diagram 2: Tree structure zones

1. Root plate & lower stem
2. Trunk
3. Primary branch support
4. Outer crown & roots



Structure ratings will also take into account general branching architecture, stem taper, live crown ratio, crown symmetry (bias or lean) and crown position such as tree being suppressed amongst more dominant trees.

The lowest or worst descriptor assigned to the tree in any column could generally be the overall rating assigned to the tree. The assessment for structure is limited to observations of external and above ground tree parts. It does not include any exploratory assessment of underground or internal tree parts unless this is requested as part of the investigation. Trees are assessed and then given a rating for a point in time. Generally, trees with a poor or very poor structure are beyond the benefit of practical arboricultural treatments.

The management of trees in the urban environment requires appropriate arboricultural input and consideration of risk. Risk potential will consider the combination of likelihood of failure and impact, including the perceived importance of the target(s).

h. Age class

Relates to the physiological stage of the tree's life cycle.

Category	Description
Young	Sapling tree and/or recently planted. Approximately 5 or less years in location.
Semi-mature	Tree increasing in size and yet to achieve expected size in situation. Primary developmental stage.
Early-mature	Tree established, generally growing vigorously. > 50% of attainable age/size.
Mature	Specimen approaching expected size in situation, with reduced incremental growth.
Over-mature	Mature full-size with a retrenching crown. Tree is senescent and in decline. Significant decay generally present.

i. Useful life expectancy

Assessment of useful life expectancy provides an indication of health and tree appropriateness and involves an estimate of how long a tree is likely to remain in the landscape based on species, stage of life (cycle), health, amenity, environmental services contribution, conflicts with adjacent infrastructure and risk to the community. It would enable tree managers to develop long-term plans for the eventual removal and replacement of existing trees in the public

realm. It is not a measure of the biological life of the tree within the natural range of the species. It is more a measure of the health status and the trees positive contribution to the urban landscape.

Within an urban landscape context, particularly in relation to street trees, it could be considered a point where the costs to maintain the asset (tree) outweigh the benefits the tree is returning.

The assessment is based on the site conditions not being significantly altered and that any prescribed maintenance works are carried out (site conditions are presumed to remain relatively constant and the tree would be maintained under scheduled maintenance programs).

Useful Life Expectancy	Typical characteristics
<1 year (No remaining ULE)	Tree may be dead or mostly dead. Tree may exhibit major structural faults. Tree may be an imminent failure hazard. Excessive infrastructure damage with high risk potential that cannot be remedied.
1-5 years (Transitory, Brief)	Tree is exhibiting severe chronic decline. Crown is likely to be less than 50% typical density. Crown may be mostly epicormic growth. Dieback of large limbs is common (large deadwood may have been pruned out). Major structural defects that cannot be remedied. Tree may be over-mature and senescing. Infrastructure conflicts with heightened risk potential. Tree has outgrown site constraints.
6-10 years (Short)	Tree is exhibiting chronic decline. Crown density will be less than typical and epicormic growth is likely to present. The crown may still be mostly entire, but some dieback is likely to be evident. Dieback may include large limbs. Structural defects present that influence the tree's risk rating, amenity or vitality. Over-mature and senescing or early decline symptoms in short-lived species. Early infrastructure conflicts with potential to increase regardless of management inputs.
11-20 years (Moderate)	Tree not showing symptoms of chronic decline, but growth characteristics are likely to be reduced (bud development, extension growth etc.). Developing structural defects that reduce viability with limited scope for management. Tree may be over-mature and beginning to senesce. Potential for infrastructure conflicts regardless of management inputs.
21-40 years (Moderately long)	Trees displaying normal growth characteristics, but vitality is likely to be reduced (bud development, extension growth etc.). Structural issues relatively minor and manageable with arboricultural input. Tree may be growing in restricted environment (e.g. streetscapes) or may be in late maturity. Semi-mature and mature trees exhibiting normal growth characteristics. Juvenile trees in streetscapes.
>40 years (Long)	Generally juvenile and semi-mature trees exhibiting normal growth characteristics within adequate spaces to sustain growth, such as in parks or open space. Could also pertain to maturing, long-lived trees. No observable major structural defects. Tree well suited to the site with negligible potential for infrastructure conflicts.

Note that ULE may change for a tree dependent on the prevailing climatic conditions, sudden changes to a tree's growing environment creating an acute stress or impact by pathogens.

The ULE may not be applicable for trees that are manipulated, such as topiary, or grown for specific horticultural purposes, such as fruit trees.

There may be instances where remedial tree maintenance could extend a tree's ULE.

j. Arboricultural Rating

Relates to the combination of assigned tree condition factors, including health and structure (arboricultural merit) and ULE, and conveys an amenity value (An amenity tree can occupy a site that complements its surroundings in a useful manner which culminates in the aid, protection, comfort and emotional response of humans. Adapted from Coder, 2004). Amenity relates to the trees biological, functional and aesthetic characteristics (Hitchmough, 1994) within an urban landscape context. The presence of any serious disease or tree-related hazards that would impact risk potential are considered.

The arboricultural rating can be used by applying only the main category high, moderate, low or very low without using the sub categories. The sub-categories can assist in differentiating a trees value and/or characteristic in more detail within the specific tree assessment context, such as a development site.

Arboricultural rating			
Category	Description		
High	<p>Exemplary specimen due to multiple factors which could include; good condition and vitality, large size/canopy and prominence in the landscape. Likely to be a very long-term component in the landscape with a long ULE.</p> <p>Other factors that could contribute to a high rating:</p> <ul style="list-style-type: none"> • Particularly good example of the species; rare or uncommon. • Tree has visual importance as a landscape feature; provides substantial contribution to landscape character. • Tree may have significant ecological or conservation value. • *Tree has historical, commemorative or other distinct social/cultural significance. <p>Trees in this category must be considered for retention and/or incorporated within design proposals.</p>		
Category	Description	Sub category	Description
Moderate	<p>Tree of moderate quality, in fair or typical condition. Tree may have a condition, and or structural problem that will respond to arboricultural treatment.</p> <p>These trees have the potential to be moderate- to long-term components of the landscape (moderate to long ULE) if managed appropriately.</p> <p>The sub-categories relate predominately to age, size and amenity.</p> <p>Trees in this category should be considered for retention and/or incorporated within design proposals.</p>	A	Moderate to large, maturing tree. Suited to the site & contributes to the landscape character. Tree may have conservation or other cultural/social value.
		B	Moderate sized, established tree, > 50% of attainable age/size. Suited to the site & contributes to the landscape character (other attributes covered under 'Moderate' description)
		C	<ul style="list-style-type: none"> • Young to semi-mature, generally a smaller tree, established, >15 cm DBH, >5 years in the location. Not a dominant canopy. No significant qualities currently but has the potential to become a higher value tree & long-term component of the landscape. Replacement of tree is likely to take up to 6 - 10 years to attain similar attributes. • Semi- to mature tree with accumulating deficiencies and reducing ULE, trending towards Low arboricultural value.
Category	Description		
Low	<p>Unremarkable tree of low quality or little amenity value. Tree in either poor health and/or with poor structure. Short to transitory useful life expectancy (<10 years).</p> <ul style="list-style-type: none"> • Tree is not prominent in the landscape due to its size or age, such as young trees with a stem diameter below 15 cm. Tree < 5 years in location. These trees are easily replaceable or capable of being transplanted. • Tree (species) is functionally inappropriate to the specific location. Is causing excessive damage/nuisance to adjacent infrastructure or would be expected to be problematic if retained (i.e. palm tree under power lines). • Unremarkable tree of no material landscape, conservation or other cultural value. Not visible from surrounding landscapes. • Tree infected with pathogens that could lead to its decline. • Tree has potential to be an environmental woody weed (may be dependent on location of tree in an urban landscape). • Tree impacting or suppressing trees of better quality. <p>Retention of such trees may be considered if not requiring a disproportionate expenditure of resources for a tree in its condition and location.</p>		
Category	Description		
Very low	<p>Trees of low quality with a brief to no remaining ULE (<5 years).</p> <ul style="list-style-type: none"> • Tree has either a severe structural defect or health problem or combination that cannot be sustained with practical arboricultural techniques and the loss of the tree or tree part would be expected in the short term. • Tree whose retention would not be viable after the removal of adjacent trees, such as trees that have developed in close spaced groups and would not be expected to adapt to severe and sudden alterations to environmental & site conditions, e.g. removal of adjacent shelter trees. • Small or young tree, <5m in height, <10cm DBH. Easily replaced in short-term or capable of being transplanted. • Acknowledged environmental woody weed species. Tree has a detrimental effect on the environment, for example, the tree has weed potential and is likely to spread into waterways or natural areas if nearby. • Tree infected with pathogens that will lead to decline and has potential to spread to adjacent trees. • Tree is dead (dead tree may offer habitat values) or is showing signs of significant, immediate, and irreversible overall decline. 		

	Tree cannot realistically be retained and should be considered for removal.
--	---

Other considerations - Even though a tree may be declining or dead, a tree could be retained for other purposes such as habitat or soil stabilisation. These trees would still need to be managed appropriately to reduce risk.

*A tree may have (attract) a high value by the community for historical, commemorative or other distinct social/cultural significance factors, albeit the tree may not be in good condition. In the context of an assessment, for multiple reasons, but more so for development, if it is a noted 'significant' tree it should receive higher consideration during the planning process.

Trees have many values, not all of which are considered when an arboricultural assessment is undertaken. However, individual trees or tree group features may be considered important community resources because of unique or noteworthy characteristics or values other than their age, dimensions, health or structural condition. Recognition of one or more of the following criteria is designed to highlight other considerations that may influence the future management of such trees.

Significance	Description
Horticultural Value/ Rarity	Outstanding horticultural or genetic value; could be an important source of propagating stock, including specimens that are particularly resistant to disease or exposure. Any tree of a species or variety that is rare.
Historic, Aboriginal Cultural or Heritage Value	Tree could have value as a remnant of a particular important historical period or a remnant of a site or activity no longer in action. Tree has a recognised association with historic aboriginal activities, including scar trees. Tree commemorates a particular occasion, including plantings by notable people, or having associations with an important event in local history.
Ecological Value	Tree could have value as habitat for indigenous wildlife, including providing breeding, foraging or roosting habitat, or is a component of a wildlife reserve. Remnant Indigenous vegetation that contribute to biological diversity

Bibliography:

Coder, K D. (1996) Construction damage assessments: trees and sites, University of Georgia, USA

Coder, K. D. (2004). Amenity trees: Defining Concepts in Use. University of Georgia. Warnell School of Forest Resources, Publication SFR04-4. May 2004

Hitchmough, J.D. (1994) Urban landscape management, Inkata Press, Australia

Gooding, R.F., Ingram, J.B., Urban, J.R., Bloch, L.B., Steigerwaldt, W.M, Harris, R.W. and Allen, E.N. (2000) Guide for plant appraisal, 9th edition, International society of Arboriculture, USA

Pollard, A. H. (1974) Introductory statistics: a service course, Pergamon Press Australia, Australia.

Standards Australia (2009) Australian Standard AS 4970-2009 Protection of trees on development sites.

Appendix 5: Tree Protection Zones

Tree logic Pty. Ltd. © 2015

1. Introduction

To sustain trees on a development site, consideration must be given to the establishment of tree protection zones.

The physical dimensions of tree protection zones can sometimes be difficult to define. The projection of a tree's crown can provide a guide but is by no means the definitive measure. The unpredictable nature of roots and their growth, differences between species and their tolerances, and observable and hidden changes to the trees growing environment, because of development, are variables that must be considered.

Most vigorous, broad canopied trees survive well if the area within the drip-line of the canopy is protected. Fine root density is usually greater beneath the canopy than beyond (Gilman, 1997). If few to no roots over 3cm in diameter are encountered and severed during excavation the tree will probably tolerate the impact and root loss. A healthy tree can sustain a loss of between 30% and 50% of absorbing roots (Harris, Clark, Matheny, 1999), however encroachment into the structural root system of a tree may be problematic.

The structural root system of a tree is responsible for ensuring the stability of the entire tree structure in the ground. A tree could not sustain loss of structural root system and be expected to survive let alone stand up to average annual wind loads upon the crown.

a. Allocation of tree protection zone (TPZ)

The most important consideration for the successful retention of trees is to allow appropriate above and below ground space for the trees to continue to grow. This requires the allocation of tree protection zones for retained trees.

The method of allocating a TPZ to a tree will be influenced by site factors, the tree species, its age, and developed form.

Once it has been established, through an arboricultural assessment, which trees and tree groups are to be retained, the next step will require careful management through the development process to minimise any impacts on the designated trees. The successful retention of trees on any particular site will require the commitment and understanding of all parties involved in the development process.

The most important activity, after determining the trees that will be retained, is the implementation of a TPZ.

The intention of tree protection zones is to:

- mitigate tree hazards;
- provide adequate root space to sustain the health and aesthetics of the tree into the future;
- minimise changes to the trees growing environment, which is particularly important for mature specimens;
- minimise physical damage to the root system, canopy and trunk; and
- define the physical alignment of the tree protection fencing

The Australian Standard AS 4970-2009 Protection of trees on development sites has been used as a guide in the allocation of TPZs for the assessed trees. The TPZ for individual trees is calculated based on trunk (stem) diameter (DBH), measured at 1.4 metres up from ground level. The radius of the TPZ is calculated by multiplying the trees DBH by 12. The method provides a TPZ that addresses both the stability and growing requirements of a tree. TPZ distances are measured as a radius from the centre of the trunk at (or near) ground level. The minimum TPZ should be no less than 2m and the maximum no more than 15m radius. The TPZ of palms should be not less than 1.0m outside the crown projection.

Encroachment into the TPZ is permissible under certain circumstances though is dependent on both site conditions and tree characteristics. Minor encroachment, up to 10% of the TPZ, is generally permissible provided encroachment is compensated for by recruitment of an equal area contiguous with the TPZ. Examples are provided in Diagram 1. Encroachment greater than 10% is considered major encroachment under AS4970-2009 and is only permissible if it can be demonstrated that after such encroachment the tree would remain viable.

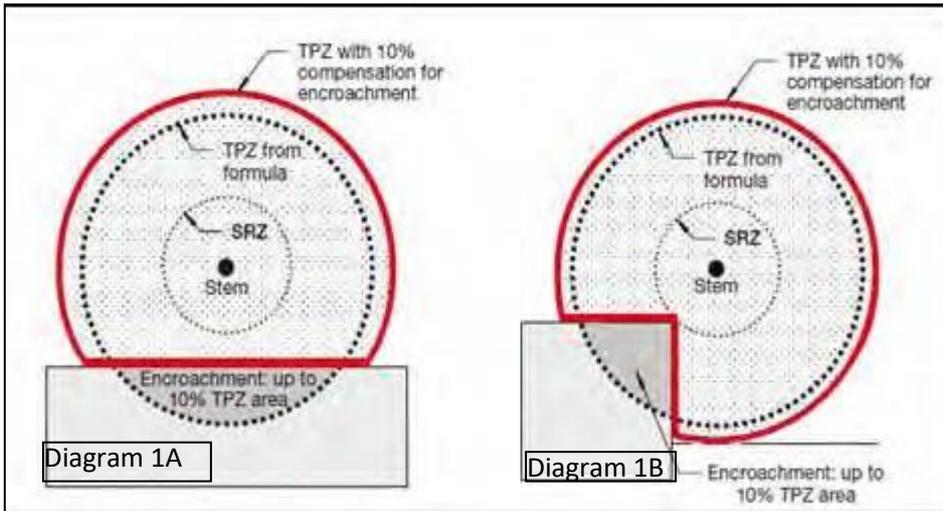


Diagram 1: Examples of minor encroachment into a TPZ. (Extract from: AS4970-2009, Appendix D, p30 of 32)

The 10% encroachment on one side equates to approximately $\frac{1}{3}$ radial distance. Tree root growth is opportunistic and occurs where the essentials to life (primarily air and water) are present. Heterogeneous soil conditions, existing barriers, hard surfaces and buildings may have inhibited the development of a symmetrically radiating root system.

Existing infrastructure around some trees may be within the TPZ or root plate radius. The roots of some trees may have grown in response to the site conditions and therefore if existing hard surfaces and building alignments are utilised in new designs the impacts on the trees should be minimal. The most reliable way to estimate root disturbance is to find out where the roots are in relation to the demolition, excavation or construction works that will take place (Matheny & Clark, 1998). Exploratory excavation prior to commencement of construction can help establish the extent of the root system and where it may be appropriate to excavate or build.

The TPZ should also consider the canopy and overall form of the tree. If the canopy requires severe pruning to accommodate a building or other works and in the process the form of the tree is diminished it may be worthwhile considering altering the design or removing the tree.

b. General tree protection guidelines

The most important factors are:

- Prior to construction works the trees nominated for tree works should be pruned to remove larger dead wood. Pruning works may also identify other tree hazards that require remedial works.
- Installation of tree protection fencing. Once the tree protection zones have been determined the next step is to mulch the zone with woodchip and erect tree protection fencing. This must be completed prior to any materials being brought on-site, erection of temporary site facilities or demolition/earth works. The protection fencing must be sturdy and withstand winds and construction impacts. The protection fence should only be moved with approval of the site supervisor. Other root zone protection methods can be incorporated if the TPZ area needs to be traversed.
- Appropriate signage is to be fixed to the fencing to alert people as to importance of the tree protection zone.
- The importance of tree preservation must be communicated to all relevant parties involved with the site.
- Inspection of trees during excavation works.

c. Exploratory excavation

The most reliable way to estimate root disturbance is to find out where the roots are in relation to the demolition, excavation or construction works that will take place (Matheny & Clark, 1998).

Exploratory excavation prior to commencement of construction can help establish the extent of the root system and where it may be appropriate to excavate or build. This also allows management decisions to be made and allows time for redesign works if required.

Any exploratory excavation within the allocated TPZ is to be undertaken with due care of the roots. Minor exploration is possible with hand tools. More extensive exploration may require the use of high pressure water or air excavation techniques. Either hydraulic or pneumatic excavation techniques will safely expose tree roots; both have specific benefits dependent on the situation and soil type. An arborist is to be consulted on which system is best suited for the site conditions.

Substantial roots are to be exposed and left intact.

Once roots are exposed decisions can be made regarding the management of the tree. Decisions will be dependent on the tree species, its condition, its age, its relative tolerance to root loss, and the amount of root system exposed and requiring pruning.

Other alternative measures to encroaching the TPZ may include boring or tunnelling.

d. How to determine the diameter of a substantial root

The size of a substantial root will vary according to the distance of the exposed root to the trunk of the tree. The further away from the trunk of a tree that a root is, the less significant the root is likely to be to the tree's health and stability.

The determination of what is a substantial root is often difficult because the form, depth and spread of roots will vary between species and sites. However, because smaller roots are connected to larger roots in a framework, there can be no doubt that if larger roots are severed, the smaller roots attached to them will die. Therefore, the larger the root, the more significant it may be.

Gilman (1997) suggests that trees may contain 4-11 major lateral roots and that the five largest lateral roots account (act as a conduit) for 75% of the total root system. These large lateral roots quickly taper within a distance to the tree, this distance is identified as the Structural Root Zone (SRZ). Within the SRZ distance, all roots and the soil surrounding the roots are deemed significant.

e. No root or soil disturbance is permitted within the SRZ

In the area outside the SRZ the tree may tolerate the loss of one or a number of roots. The table below indicates the size of tree roots, outside the SRZ that would be deemed substantial for various tree heights. The assessment of combined root loss within the TPZ would need to be undertaken by an arborist on an individual basis because the location of the tree, its condition and environment would need to be assess

Table 1: Estimated significant root sizes outside SRZ

Height of tree	Diameter of root	Height of tree	Diameter of root
Less than 5m	≥ 30mm	Less than 5m	≥ 30mm
Between 5m - 15m	≥ 50mm	Between 5m - 15m	≥ 50mm
More than 15m	≥ 70mm	More than 15m	≥ 70mm

f. Ground buffering

Where works are required to be undertaken within the tree root zone, surface, ground buffering and trunk and limb protection must be provided to minimise the potential for soil to become compacted and avoid potential for impact wounds to occur to surface roots, trunk or limbs. Refer below.

4.5.3 Ground protection

If temporary access for machinery is required within the TPZ ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Measures may include a permeable membrane such as geotextile fabric beneath a layer of mulch or crushed rock below rumble boards as per Figure 4.

These measures may be applied to root zones beyond the TPZ.

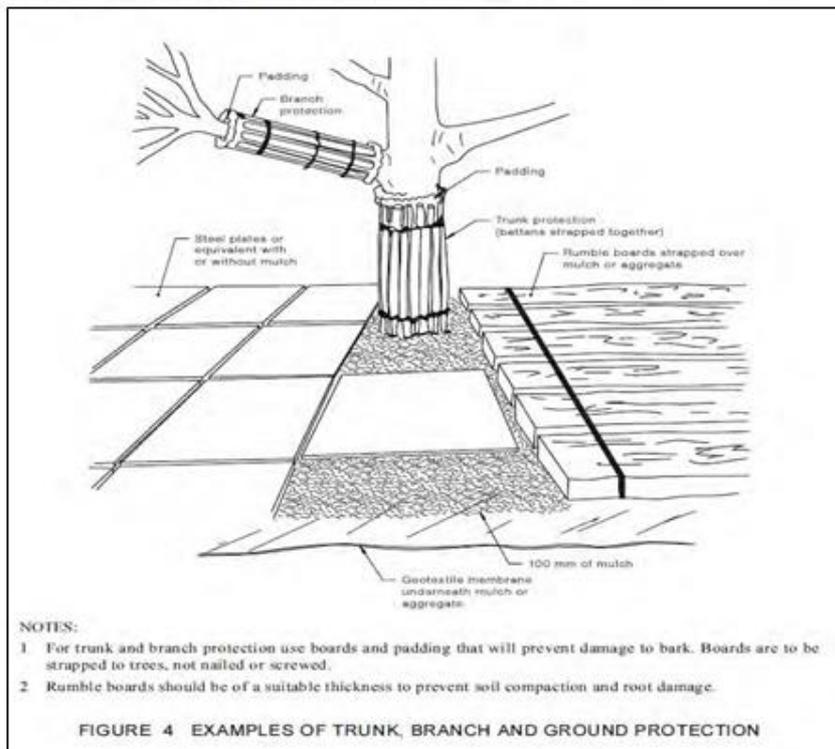


Diagram 2: Examples of ground buffering and trunk and limb protection

(Extract from: AS4970-2009, Appendix D, pg17)

Copyright notice

©Tree Logic 2021. All rights reserved, except as expressly provided otherwise in this publication.

Disclaimer

Whilst the material contained in this Report has been formulated with all due care and skill, Tree Logic Pty Ltd (ACN 080 021 610) (Tree Logic) does not warrant or represent that the material is free from errors or omission, or that it is exhaustive. Tree Logic disclaims, to the extent permitted by law, all warranties of any kind, either expressed or implied.

To the extent permitted by law, you agree that Tree Logic, its employees and agents, are not liable to you or any other person or entity for any loss or damage caused or alleged to have been caused (including loss or damage resulting from negligence), either directly or indirectly, by your use of the information (including by way of example, arboricultural advice) made available to you in this report. Without limiting this disclaimer, in no event will Tree Logic be liable to you for any lost revenue or profits, or for special, indirect, consequential or incidental damage (however caused and regardless of the theory of liability) arising out of or related to your use of that information, even if Tree Logic has been advised of the possibility of such loss or damage.

Whilst the information contained in this Report is considered to be true and correct at the date of publication, changes in circumstances after the time of publication may impact upon the accuracy of this report. This disclaimer is governed by the law in force in the State of Victoria, Australia.

Reliance

This Report is addressed to you and may not be distributed to, or used or relied on by, another person without the prior written consent of Tree Logic. Tree Logic accepts no liability to any other person, entity or organisation with respect to the content of this Report unless that person, entity or organisation has first agreed in writing to the terms upon which this Report may be relied on by that other person, entity or organisation.

The report and any values expressed therein represent the opinion of Tree Logic's consultant and Tree Logic's fee is in no way conditional upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

There is no warranty or guarantee, expressed or implied by Tree Logic Pty. Ltd., that problems or deficiencies of the plants or site in question may not arise in the future. Tree condition can change quickly in response to environmental conditions or altered growing conditions.

There can be no guarantees provided for on-going tree safety. It should be noted that not all of the potential structural concerns associated with trees can be eliminated and that there will always be a residual risk following any mitigation works. Also, not all tree defects are observable and extreme weather events are unpredictable. Since trees are complex, living organisms, it is difficult to quantify and precisely measure all variables when inspecting a standing tree for hazard.

Trees should be reassessed on a regular basis; the scheduled period of reassessment will be dependent on the characteristics of the tree, the landscape context and perceived targets, and resources available to maintain them.