

Arborist Report

Client: Healthe Care Surgical Pty Ltd
Address: 173 – 175 Chisholm Road,
ASHTONFIELD N.S.W 2323



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1.0 *Executive Summary*

- It is recommended that Trees 1 – 3, 4 - 7, 10, 11, 14 – 19, 22 & 23 (16 in total) be removed immediately (before commencement of the car park) by a qualified arborist (minimum certificate 2 in arboriculture). It is recommended that professional indemnity and public liability insurances be current and sighted before commencement of works begin. The level of cover has to be one in agreement between Health Care Surgical Pty Ltd and the arborist.
- It is recommended that Trees 4, 8, 9, 12, 13, 20 & 21 (7 in total) be retained and incorporated into the development. Conditions and recommendations will be outlined in section 7 of the report.

2.0 Arborist Details

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| Bradley Magus Contact Details: P.O Box 333 Newcastle 2300 Ph: 0425 203 049 Email: abacustrees@gmail.com or bradmagus1@bigpond.com Web: www.abacustreeservices.com | Qualifications <ol style="list-style-type: none">1. Diploma Horticulture (1993)2. Bachelor of Horticulture Science (1996)3. Masters Land Economics (2002)4. Diploma Horticulture (Arboriculture) (AQF 5) 2007 (Dux)5. International Society of Arboriculture Certified Arborist (2007)6. QTRA Assessor – 2011 & 2013 |
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2.1 Introduction

Abacus Tree Services was commissioned by Healthe Care Surgical Pty Ltd to assist in the preparation of an arborist report. An assessment was made on twenty three (23) trees located within the confines of 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield. There is in total twenty three (23) trees located at 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield that were assessed as per the applicant's instructions.

The purpose of this report is to provide information and guidance to the applicant in relation to twenty three (23) trees only. The information in this report is to be used in correlation with other reports identified by Maitland Council and will provide Maitland Council with a framework for determining the development application (D.A).

This report and its recommendations are based upon a physical site inspection undertaken on the 23 March 2023.

The photographs included in this report were taken at the time of the inspection on the 23 March 2023.

2.2 Aims of this report/Procedure

The aim of this report is to assess the health and condition of twenty three (23) trees (Trees 1 - 23). The condition of the trees was assessed from ground level using the VTA (Visual Tree Assessment) method as outlined by Mattheck & Breloer (1999). The following criteria will be assessed within this report –

- An assessment of the dimensions (age, class, height and Diameter at Breast Height (D.B.H))
- An assessment of the health and condition of the trees;
- An assessment of the Useful Life Expectancy (U.L.E)
- Compilation of an appropriate report detailing the results of the above assessments
- Trees earmarked for retention to be assessed as per Australian Standards 4970-2009
- Hazard Rating, Recommendations for each tree

The (U.L.E) method of tree assessment, as outlined by Jeremy Barrell (1999) has been adopted within this report. U.L.E categories give an indication of the useful life expectancy anticipated for the tree that has been adopted for this report. Several factors are considered in determining this rating such as species, location, age, condition and health of the tree. The five U.L.E categories are outlined in detail within Appendix 2.

3.0 Disclaimer

This assessment has been prepared for the exclusive use of the applicant (Health Care Surgical Pty Ltd), for the preparation of a development application submission. Information in this report relates to twenty three (23) trees (Trees 1 – 23) within the premises of 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield only and should not be used in conjunction with any other property.

This assessment was carried out from the ground, and covers what was reasonably able to be assessed and available to the assessor at the time of the inspection. The assessor carried out no aerial inspections. Information contained in this report covers only the trees that were examined and reflects the condition of the trees at the time of the inspection; furthermore the inspection was limited to a visual examination of the subject trees without dissection, excavation, probing or coring. Trees are living things and their condition will change over time. Therefore there is no guarantee that problems or deficiencies of the subject tree may not arise in the future.

3.1 Site Map

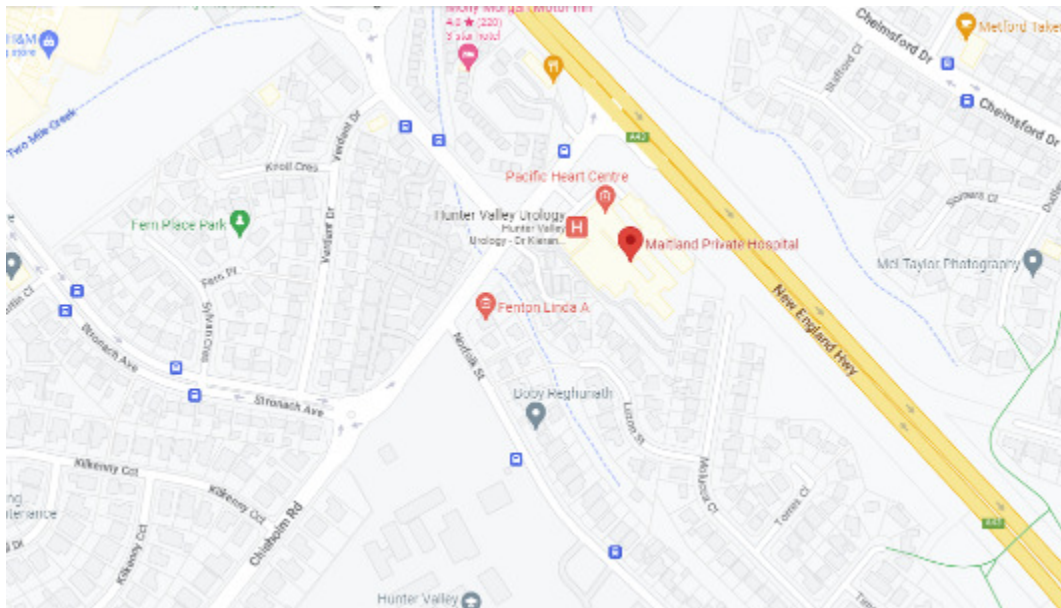


Figure 1

Location: All trees are located within 173 - 175 Chisholm Road, Ashtonfield

Source: www.googlemaps.com.au

3.2 Site Description

Trees 1 – 23 are located wholly within 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield. The site is located in the municipality of Maitland Council. The species on site has been assessed against the requirements set out in Maitland Council's Local Environmental Plan (2011) pursuant to Section 5.9 & 5.9AA (repealed) & Development Control Plan (2011) (Part B.5 – Tree Management). I have assessed the property against Schedule 5 (Environmental Heritage) within Maitland LEP. The property is not listed in accordance with Part 1 (Heritage Items) and/or Part 2 (Heritage Conservation Area).

The subject property has also been assessed against the SEPP Policy (Biodiversity and Conservation) 2021. This property or council area is not listed as being within Part 2 (Section 2.3) of the SEPP (Biodiversity and Conservation) 2021. All councils have items of local government and state heritage significance. These items are found in the NSW heritage website. The subject property has been assessed against the Heritage NSW database. In accordance with Heritage NSW listed items there are no listings (Items listed by Local Government & State Agencies) for the subject property. This also includes no trees of heritage significance for the subject property.

The site is set on a flat block with the immediate area being dominated by residential houses. The nearest major arterial road is New England Highway. Trees 1 - 23 are located within the subject properties identified as 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield. Trees 1 - 23 are located within close proximity to the subject property & proposed development.



Figure 2 – Location of subject property identified as 173 - 175 Chisholm Road, Ashtonfield
Source: Google Maps

4.0 *Tree Schedule*

Species & dimension requirements on Pages 9 & 10. This page intentionally left blank

| Tree No | Scientific Name | Common Name | DBH (MM) | Height (M) | AGE CLASS | Vigour | SPREAD N.E.S.W. | ULE | Comments |
|---------|-------------------------|------------------------|----------|------------|-----------|--------|-----------------|-----|---|
| 1 | Elaeocarpus reticulatis | Blueberry Ash | 80 | 4 | YM | G | 1,1,1,2 | 2a | Symmetrical, LCR = 95 – 100% |
| 2 | Tristanopsis laurina | Water Gum | 70 | 3.5 | YM | G | 1,1,1,1 | 2a | Symmetrical, LCR = 95 – 100% |
| 3 | Corymbia maculata | Spotted Gum | 305 | 13 | YM | G | 4,2,2,2 | 2d | Symmetrical, LCR = 95 – 100% |
| 4 | Corymbia maculata | Spotted Gum | 440 | 15 | M | G | 5,5,6,4 | 2d | Symmetrical, LCR = 95 – 100% |
| 5 | Elaeocarpus reticulatis | Blueberry Ash | 55 | 3 | SM | G | 1,1,1,1 | 2a | Symmetrical, LCR = 95 – 100% |
| 6 | Melaleuca decora | Honey Myrtle | 35 | 4.5 | YM | G | 0,2,1,1 | 2a | Symmetrical, LCR = 95 – 100% |
| 7 | Tristanopsis laurina | Water Gum | 60 | 3.5 | YM | G | 1,1,1,2 | 2a | Symmetrical, LCR = 95 – 100% |
| 8 | Corymbia maculata | Spotted Gum | 490 | 20 | M | G | 5,5,7,5 | 2d | Symmetrical, LCR = 95 – 100% |
| 9 | Corymbia maculata | Spotted Gum | 305 | 11 | YM | G | 3,2,5,4 | 2d | Symmetrical, LCR = 95 – 100% |
| 10 | Tristanopsis laurina | Water Gum | 80 | 4 | YM | G | 1,2,2,2 | 2a | Symmetrical, LCR = 95 – 100% |
| 11 | Elaeocarpus reticulatis | Blueberry Ash | 70 | 4 | YM | F | 1,1,1,1 | 3d | Symmetrical, LCR = 70 – 75% |
| 12 | Magnolia floribunda | Southern Magnolia | 30 | 3 | SM | F | 1,1,1,1 | 2a | Symmetrical, LCR = 95 – 100% |
| 13 | Photinia glabra | Photinia | MS (260) | 5 | YM | G | 2,2,2,2 | 2a | Symmetrical, LCR = 95 – 100% |
| 14 | Elaeocarpus reticulatis | Blueberry Ash | 70-110 | 3-5 | YM | G | 2,2,2,2 | 2a | Symmetrical, LCR = 95 – 100% |
| 15 | Radermachera sinica | China Doll Tree | 210,170 | 7.5 | M | G | 5,5,4,4 | 2d | Symmetrical, LCR = 95 – 100% |
| 16 | Jacaranda mimosifolia | Jacaranda | MS (390) | 7.5 | M | G | 5,6,3,2 | 2d | Symmetrical, LCR = 95 – 100% |
| 17 | Syagrus romanzoffianum | Cocos Palm | 385 | 10 | M | G | 3,3,3,3 | 2d | Located 0.1 metres to boundary fence, Symmetrical, LCR = 95 – 100% |
| 18 | Murraya paniculata | Orange jessamine | MS (205) | 4 | M | G | 2,3,3,2 | 2a | Symmetrical, LCR = 95 – 100% |
| 19 | Dracaena marginata | Madagascar Dragon Tree | MS (150) | 4 | YM | G | 1,1,1,1 | 2a | Located on fence line in neighbours' property, Symmetrical, LCR = 95 – 100% |
| 20 | Waterhousia floribunda | Weeping Lilly Pilli | 300,220 | 7 | M | G | 3,2,3,3 | 2a | Bifurcated at 0.4 metres above ground level, Symmetrical, LCR = 95 – 100% |
| 21 | Waterhousia floribunda | Weeping Lilly Pilli | 190 | 6 | YM | G | 3,3,3,3 | 2a | Symmetrical, LCR = 95 – 100% |

| | | | | | | | | | |
|----|------------------------|---------------------|----------|-----|----|---|---------|----|------------------------------|
| 22 | Waterhousia floribunda | Weeping Lilly Pilli | MS (205) | 4.5 | YM | G | 2,2,2,2 | 2a | Symmetrical, LCR = 95 – 100% |
| 23 | Waterhousia floribunda | Weeping Lilly Pilli | 90 | 4.5 | YM | G | 2,2,2,2 | 2a | Symmetrical, LCR = 95 – 100% |

Key:

Age class: Young = Y, Semi mature = SM, Mature = M, YM = Young Mature, Over mature = OM

DBH = Diameter at Breast Height LCR = Live Crown Ratio

Vigour = E = Excellent, G = Good, F = Fair, P = Poor, D = Dead, Do = Dormant

LDW = large deadwood over 40mm, MDW = Minor deadwood less than 40mm

N = north, E = east, W = west, S = south MS = multiple Stems

ULE = Useful Life Expectancy (See appendix 2 for guidelines)

MS = Multiple Stems S = Shrub

MC = Maitland Council

SRZ = Structural Root Zone TPZ = Tree Protection Zone

4.1 *Trees & Impact on Development*

Trees are living organisms and their root systems play an integral role in stability and providing nutrient storage as well as water uptake. The majority of tree roots for Dicotyledons occur within the first metre of the soil. Therefore construction works can have a profound effect on their health and longevity as well as their structural stability. Tree distances from excavation works must be taken into consideration at the planning stage to ensure that the tree is not damaged.

There are several main factors that occur at the construction phase that can have a negative impact on the trees health and stability. These practices can include but are not limited to –

- Parking of vehicles and heavy machinery within the drip line of the tree.
- Stockpiling of materials within the drip line of the tree.
- Excavating within the drip line and damaging the structural root system.
- Raising soil levels in and around the base of the tree therefore reducing the trees ability for gaseous exchange.
- Damage to the tree due to heavy machinery and equipment resulting in large bark tears or loss of branches and scaffolds.

To reduce the effects of construction it is imperative to provide an area underneath the tree where no works are undertaken. The area where supervised works are undertaken is referred to as the structural root zone (SRZ). The S.R.Z/T.P.Z is an area where no to minimal activities listed above should occur. All trees require an S.R.Z/T.P.Z and will vary from species to species but for the purposes of this report the Australian Standards 4970 has now been adopted.

In conclusion the Australian Standards like similar methods for protecting trees is only a guide. To ensure the health and longevity of trees within construction sites it is imperative to provide a large protection zone taking into consideration that the tree will also grow over time. The greater area that can be put aside where no works occur will aid in the preservation of the tree. The activities listed above should be kept to a minimum and encroachment within the SRZ/TPZ will require the supervision by a qualified AQF 5 arborist. These impacts will be taken into consideration in the discussion & recommendations section of this report.

5.0 Discussion & Compliance to Australian Standards 4970 – 2009, 4373 – 2007 & Rural Fire Service (RFS) 10:50 Code

Abacus Tree Services has been approached by SLR Consulting on behalf of their client (Health Care Surgical Pty Ltd) to undertake an arborist (assessment) report on trees that come under the requirements of Maitland Council Development Control Plan (2011) (Part B.5 – Tree Management) & trees that will be affected by the proposed development. There are twenty three (23) trees that have been assessed within the subject properties identified as 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield. Trees 1 – 7, 10 – 12, 14 & 20 - 23 are located inside the subject property and existing car parking area. Tree 13 is located the backyard of 11 Molucca Close, Ashtonfield. Trees 15 – 17 are located in the backyard of 9 Molucca Close, Ashtonfield. Trees 18 & 19 are located inside the backyard of 7 Molucca Crescent, Ashtonfield. The applicant proposes to extend the existing car park to include an upper level car park within the subject property identified as 173 - 175 Chisholm Road, Ashtonfield (Appendix 1).

Abacus Tree Services has relied upon the sketch drawings provided by SLR Consulting (Drawing number – 9-19-0020) to formulate distances and setbacks in accordance with Australian Standards 4970 – 2009. I have relied upon this information to be true and accurate. Any changes to the sketching and drawings will require the calculations to be reassessed in accordance with Australian Standards 4970 – 2009.



Figure 3 – showing the extension of the proposed upper level carpark

The table below represents the S.R.Z (Structural Root Zone) and TPZ (Tree Protection Zone) figures based on Australian Standards 4970 - 2009.

| Tree No | SRZ (metres) | TPZ (metres) |
|---------|--------------|--------------|
| 1 | 1.50 | 2.00 |
| 2 | 1.50 | 2.00 |
| 3 | 2.22 | 3.66 |
| 4 | 2.63 | 5.28 |
| 5 | 1.50 | 2.00 |
| 6 | 1.50 | 2.00 |
| 7 | 1.50 | 2.00 |
| 8 | 2.59 | 5.88 |
| 9 | 2.23 | 3.66 |
| 10 | 1.50 | 2.00 |
| 11 | 1.50 | 2.00 |
| 12 | 1.50 | 2.00 |
| 13 | 1.88 | 3.12 |
| 14 | 1.50 | 2.00 |
| 15 | 2.00 | 3.24 |
| 16 | 2.28 | 4.68 |
| 17 | 2.00 | 4.00 |
| 18 | 1.50 | 2.00 |
| 19 | 1.50 | 2.00 |
| 20 | 2.22 | 4.44 |
| 21 | 1.72 | 2.28 |
| 22 | 1.70 | 2.46 |
| 23 | 1.50 | 2.00 |

All trees require a S.R.Z and a T.P.Z with Australian Standards 4970- 2009 being used as a guideline. Tree 1 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 1 is a small tree that has the potential for extensive future growth. Tree 1 is located an estimated 1.1 metres to the proposed car park area as highlighted in Figure 3. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 1.16 metres from the centre of the trunk to the proposed car park and associated excavation works. The overall loss of TPZ has been calculated at 15.27% that doesn't comply with AS 4970 – 2009. The proposed garden beds and existing asphalt are earmarked for removal that will see further disturbance to the root plate in this zone. Tree 1 is earmarked for removal before commencement of building works on site.



Figure 4 – showing the location of Trees 1 & 2 in the existing garden beds. The proposed two storey car park will extend towards the eastern boundary.

Tree 2 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 2 is located 0.9 metres to the proposed carpark extensions. This species has the potential for extensive future growth. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 0.96 metres from the centre of the trunk to the proposed development. The overall loss of TPZ has been calculated at 20.66% that doesn't comply with AS 4970 – 2009. The proposed garden beds and existing asphalt are earmarked for removal that will see further disturbance to the root plate in this zone. Tree 2 is earmarked for removal before commencement of building works on site.

Tree 3 has been given an SRZ and TPZ of 2.22 & 3.66 metres in accordance with Australian Standards 4970 - 2009. Tree 3 is growing on the boundary fence within the subject property as noted in Figure 4. This species is starting to cause damage to the existing boundary fence. Tree 3 is located 2.15 metres to the proposed car park. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 2.34 metres from the centre of the trunk to the proposed car park and associated earthworks. The overall loss of TPZ has been calculated at 12.27% that doesn't comply with AS 4970 – 2009. This species is only young mature with the potential for extensive future growth. This species would require constant pruning works due to the canopy extension over the car park and extension. Tree 3 is earmarked for removal before commencement of building works on site.



Figure 5 – showing the location of Trees 2 & 3 inside the existing garden bed. The 2nd storey car park will extend to the east quadrant past Trees 2 & 3. The proposed car park will be located 2.15 metres to the trunk of Tree 3. This species

Tree 4 has been given an SRZ and TPZ of 2.63 & 5.28 metres in accordance with Australian Standards 4970 - 2009. Tree 4 is located on the fence line within the neighbour's property as outlined in Figure 5. This species will be located 2.5 metres to the proposed car park and associated earthworks. This species is only in a young mature phase with the potential for extensive future growth. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 2.79 metres from the centre of the trunk to the proposed car park and associated excavation works. The overall loss of TPZ has been calculated at 18% that sits above the 10% threshold in accordance with AS 4970 – 2009. The loss of 18% is outside of the SRZ in all four quadrants. The loss of 18% can be compensated for within the neighbour's property. The footings have been moved that are now situated outside of the SRZ. There will be no excavation works inside the SRZ that is used by the tree for structural stability. This species could be retained on the proviso that the existing soil levels are retained. This includes no change to the soil profile for the first 2 metres within the subject property inside the TPZ. Tree 4 is earmarked for retention and incorporation into the development.



Figure 6 – showing the location of Tree 4 inside the neighbour's backyard. The soil levels associated with the garden beds are to be retained with no excavation works inside this zone

Tree 5 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 5 is located 0.9 metres to the proposed car park. This species is young mature with the potential for extensive future growth. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 0.94 metres from the centre of the trunk to the proposed development and associated excavation works. The overall loss of TPZ has been calculated at 21.22% that doesn't comply with AS 4970 – 2009. Tree 5 is earmarked for removal before commencement of building works on site.



Figure 7 – showing the location of Tree 6.

Tree 6 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 6 is located 1.7 metres to the proposed car park. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 1.76 metres from the centre of the trunk to the proposed development. The overall loss of TPZ has been calculated at 2.45% that complies with AS 4970 – 2009. This species may require removal to upgrade the garden beds. Tree 6 is earmarked for removal before commencement of building works on site.

Tree 7 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 7 is located inside the proposed carpark area. In order to construct the proposed car park will require the removal of Tree 7. Tree 7 is earmarked for removal before commencement of building works on site.

Tree 8 has been given an SRZ and TPZ of 2.59 & 5.88 metres in accordance with Australian Standards 4970 - 2009. Tree 8 is located inside the neighbour's backyard. This species is located 0.55 metres to the boundary fence. This species will be located 3.05 metres to the proposed car park and associated earthworks. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 3.33 metres from the centre of the trunk to the proposed development. The overall loss of TPZ has been calculated at 15.98% that sits above the 10% threshold in accordance with AS 4970 – 2009. The loss of 15.98% is outside of the SRZ in all four quadrants. The loss of 15.98% can be compensated for within the neighbour's property. The footings have been moved that are now situated outside of the SRZ. There will be no excavation works inside the SRZ that is used by the tree for structural stability. This species could be retained on the proviso that the existing soil levels are retained. This includes no change to the soil profile for the first 2 metres within the subject property inside the TPZ. The first 2 metres would be left unchanged as outlined in red. Tree 4 is earmarked for retention and incorporation into the development.



Figure 8 – showing the location of Trees 8 & 9 in the backyard of the neighbour's property. In order to retain Trees 8 & 9 would require an area set aside inside the subject property at existing soil levels.

Tree 9 has been given an SRZ and TPZ of 2.23 & 3.66 metres in accordance with Australian Standards 4970 - 2009. This species is located inside the neighbour's property. Tree 9 is located 1.8 metres to the boundary fence. This species is located 4.2 metres to the proposed carpark. The proposed carpark works will be located outside of the TPZ. In order to retain this tree would require a minimum of 2.05 metres inside the subject property that was retained at existing soil levels inside the TPZ. If this could be achieved would allow the retention of Tree 9. This species could be retained on the proviso that the existing soil levels are retained. This includes no change to the soil profile for the first 2 metres within the subject property inside the TPZ as outlined in Figure 7. The first 2 metres would be left unchanged as outlined in red (Figure 7). Tree 9 is earmarked for retention and incorporation into the development.

Tree 10 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 10 is located 2.2 metres to the proposed car park. The proposed car park will be located outside of the TPZ. This is a small tree that could be compensated for with appropriate landscape species. This species may require removal to upgrade the garden beds. Tree 10 is earmarked for removal before commencement of building works on site.



Figure 9 – showing the location of Trees 10 & 11

Tree 11 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 11 is located 2.4 metres to the proposed car park. The proposed car park will be located outside of the TPZ. This is a small tree that could be compensated for with appropriate landscape species. This species may require removal to upgrade the garden beds. Tree 11 is earmarked for removal before commencement of building works on site.



Figure 10 – showing the location of Tree 12. This species will be located inside the proposed car park.

Tree 12 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 12 is located outside of the proposed carpark area. Tree 12 will be located inside the proposed garden beds. Tree 12 is earmarked for retention and incorporation into the development.



Figure 11 – showing the location of Tree 13 that consists of a row of Photinia. There are in total four Photinia that make up the hedge. These trees are planted 1.7 metres from the boundary fence.

Tree 13 has been given an SRZ and TPZ of 1.88 & 3.12 metres in accordance with Australian Standards 4970 - 2009. Tree 13 consists of a row of Photinia as identified in Figure 10. These trees are located 1.7 metres to the boundary fence. The proposed car park to the eastern quadrant will be 1.6 metres to the boundary fence. This leaves a spatial separation of 3.3 metres to the trunk. The proposed development will be located outside of the TPZ. There is the potential to retain the row of Photinia (Tree 13). Tree 13 is earmarked for retention and incorporation into the development. Minor pruning works may be required as there is an estimated 1 to 1.3 metres of overhang. Pruning works will be required as the hedge continues to grow.

Tree 14 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 14 consists of three Blueberry Ash. These species are located 1.1 metres from the back boundary fence. These species will be located 0.6 metres to the proposed development. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 1.17 metres from the centre of the trunk to the proposed development. The overall loss of TPZ has been calculated at 15.01% that doesn't comply with AS 4970 – 2009. Tree 14 is earmarked for removal before commencement of building works on site.



Figure 12 – showing the location of the row (3) of *Elaeocarpus reticulatis*. There are three in the row that have been previously planted.

Tree 15 has been given an SRZ and TPZ of 2.00 & 3.24 metres in accordance with Australian Standards 4970 - 2009. Tree 15 is located in the backyard of 9 Molucca Close. Tree 15 has extensive canopy to the western quadrant that extends for 4.5 metres inside the subject property. There is an estimated 25 – 30% of the canopy that need to be removed in order to construct the secondary level car park. This is considered a medium loss of canopy. This species will be located 2.3 metres to the proposed car park. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 2.45 metres from the centre of the trunk to the proposed development. The overall loss of TPZ has been calculated at 6.96% that complies with AS 4970 – 2009. Ongoing pruning works would be required for this species due to the location and proximity to the car park. This being considered it may require the removal of Tree 15. Tree 15 is earmarked for removal before commencement of building works on site.



Figure 13 – showing the location of Tree 15 and the pruning works that would be required to accommodate the proposed car park. This is considered a moderate level of pruning. Ongoing pruning works would also be required to ensure

Tree 16 has been given an SRZ and TPZ of 2.28 & 4.68 metres in accordance with Australian Standards 4970 - 2009. Tree 16 is located in the backyard of 9 Molucca Close. Tree 16 will be located 2.7 metres to the proposed carpark and associated earthworks. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 2.91 metres from the centre of the trunk to the proposed car park. The overall loss of TPZ has been calculated at 13.19% that doesn't comply with AS 4970 – 2009. Tree 16 is earmarked for removal before commencement of building works on site.

Tree 17 has been given an SRZ and TPZ of 2.00 & 4.00 metres in accordance with Australian Standards 4970 - 2009. This species has been given a TPZ requirement in accordance with monocotyledons that is outlined as 1 metre outside the crown projection in accordance with AS 4970 – 2009. Tree 17 is located in the backyard of 9 Molucca Close. Tree 17 is considered a weed species in Maitland Council. Tree 17 is earmarked for removal before commencement of building works on site.



Figure 14 – showing the location of Trees 18 & 19. These are low landscape significance species located in the backyard of 9 Molucca Close.

Tree 18 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 18 is located in the backyard of 7 Molucca Close. Tree 18 is a small hedge that is 4 metres in height. This species is located 0.2 metres to the boundary fence. This species will be located 0.4 metres to the proposed car park. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 0.51 metres from the centre of the trunk to the proposed car park and associated earth works. The overall loss of TPZ has been calculated at 33.94% that doesn't comply with AS 4970 – 2009. Tree 18 is earmarked for removal before commencement of building works on site.

Tree 19 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 19 is located in the backyard of 7 Molucca Close. Tree 19 is located on the boundary fence as noted in Figure 13. This species has been given the smallest TPZ requirement in accordance with AS 4970 – 2009. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 0.3 metres from the centre of the trunk to the proposed car park and associated earthworks. The overall loss of TPZ has been calculated at 40.49% that doesn't comply with AS 4970 – 2009. Tree 19 is earmarked for removal before commencement of building works on site.



Figure 15 – showing the location of Tree 20

Tree 20 has been given an SRZ and TPZ of 2.22 & 4.44 metres in accordance with Australian Standards 4970 - 2009. Tree 20 is situated at the end of the garden bed as noted in Figure 14. This species could be retained on the proviso that the existing garden bed is retained up to the edge of the existing concrete. If this can be achieved will allow the retention of Tree 20. Tree 20 is earmarked for retention and incorporation into the development.



Figure 16 – showing the location of Tree 21

Tree 21 has been given an SRZ and TPZ of 1.72 & 2.28 metres in accordance with Australian Standards 4970 - 2009. Tree 21 is situated at the end of the garden bed as noted in Figure 15. This species could be retained on the proviso that the existing garden bed is retained up to the edge of the existing concrete. If this can be achieved will allow the retention of Tree 21. Tree 21 is earmarked for retention and incorporation into the development.



Figure 17 – showing the location of Trees 22 & 23. Both trees will be located inside the proposed car park.

Tree 22 has been given an SRZ and TPZ of 1.70 & 2.46 metres in accordance with Australian Standards 4970 - 2009. Tree 22 will be located inside the proposed car park. In order to construct the proposed carpark will require the removal of Tree 22. Tree 22 is earmarked for removal before commencement of building works on site.

Tree 23 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 23 will be located inside the proposed car park. In order to construct the proposed carpark will require the removal of Tree 23. Tree 23 is earmarked for removal before commencement of building works on site.

6.0 Conclusions

- Abacus Tree Services has been approached by SLR Consulting on behalf of their client (Health Care Surgical Pty Ltd) to undertake an arborist (assessment) report on trees that come under the requirements of Maitland Council Development Control Plan (2011) (Part B.5 – Tree Management) & trees that will be affected by the proposed development. There are twenty three (23) trees that have been assessed within the subject properties identified as 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield. Trees 1 – 7, 10 – 12, 14 & 20 - 23 are located inside the subject property and existing car parking area. Tree 13 is located the backyard of 11 Molucca Close, Ashtonfield. Trees 15 – 17 are located in the backyard of 9 Molucca Close, Ashtonfield. Trees 18 & 19 are located inside the backyard of 7 Molucca Crescent, Ashtonfield. The applicant proposes to extend the existing car park to include an upper level car park within the subject property identified as 173 - 175 Chisholm Road, Ashtonfield (Appendix 1). Trees 1 - 23 have been assessed in accordance with Australian Standards 4970 – 2009.
- Trees 1 – 23 are located wholly within 10 Luzon Street, 7, 9 & 11 Molucca Close & 173 - 175 Chisholm Road, Ashtonfield. The site is located in the municipality of Maitland Council. The species on site has been assessed against the requirements set out in Maitland Council's Local Environmental Plan (2011) pursuant to Section 5.9 & 5.9AA (repealed) & Development Control Plan (2011) (Part B.5 – Tree Management) I have assessed the property against Schedule 5 (Environmental Heritage) within Maitland LEP. The property is not listed in accordance with Part 1 (Heritage Items) and/or Part 2 (Heritage Conservation Area).
- The subject property identified as 173 - 175 Chisholm Road, Ashtonfield is located in a Rural Fire Service (RFS) 10:50 area. Therefore all trees have been assessed in accordance with council requirements with potential exemptions under RFS 10:50 legislation. The search was undertaken on the 31 March 2023. Rules and regulations in relation to the RFS 10:50 can change and it is therefore up to the applicant to ensure they comply with the 10:50 code and any updates that may occur.
- Protection fencing for Trees 12, 20 & 21 (3 in total) has not been considered as they are located in existing garden beds outside the scope of works. Majority of the TPZ is located in asphalt. Providing protection fencing for Trees 4, 8 & 9 is required to protect the SRZ. Fencing would be restricted to the garden bed area that would not restrict existing vehicular movement to the site. No protection fencing is allocated to Trees 4, 8, 9, 12, 20 & 21.

- Trees 9, 12, 20 & 21 have the potential for future growth and therefore the canopy and root plate have the potential for future growth. All measures have been taken to minimise damage to the proposed buildings and hardstand areas however future growth has the potential to cause damage to the proposed buildings and/or hardstand areas.
- The applicant has therefore assessed all trees within 5 metres of the proposed development. This includes all trees on neighbouring properties within 5 metres of the proposed development (7, 9 & 11 Molucca Close, Ashtonfield). The applicant has assessed all trees necessary for the development to meet the requirements of Maitland Council DCP & Australian Standards 4970 – 2009.
- In order for the development to proceed in its current format will require the removal of Trees 1 – 3, 5 - 7, 10, 11, 14 – 19, 22 & 23 (16 in total). This includes all trees inside the proposed development, hardstand areas and those that do not pass the requirements of AS 4970 – 2009. Trees 4, 8, 9, 12, 13, 21 & 22 (7 in total) can be retained and incorporated into the development. This is based on the proviso that the garden beds are retained up to the existing concrete gutter as noted in Figures 5, 7, 14 & 15. Any works inside the garden beds are to be undertaken by non-mechanised methods. Conditions and recommendations in relation to retained trees will be outlined in section 7 of the report.
- There is the potential to retain Tree 9 if the first 2.05 metres inside the subject property can be retained. This is the first 2.05 metres inside the TPZ. If this can be achieved will allow the retention of Tree 9. If this cannot be achieved than the applicant will have to gain permission from Maitland Council and the property owner. In order to retain Trees 4, 8 & 9 will require existing soil profile to be maintained up to the edge of the proposed development. This will require retention of the existing garden beds as outlined in Figures 5 & 7. Trees earmarked for removal within 7 – 11 Molucca Close are properties owned and managed by Health Care.

7.0 Recommendations

- It is recommended that Health Care Surgical Pty Ltd embark on a management program for twenty three (23) trees (Trees 1 – 23) before commencement of the proposed carpark extensions and constructions works as follows:
- It is recommended that Trees 1 – 3, 4 - 7, 10, 11, 14 – 19, 22 & 23 (16 in total) be removed immediately (before commencement of the car park) by a qualified arborist (minimum certificate 2 in arboriculture). It is recommended that professional indemnity and public liability insurances be current and sighted before commencement of works begin. The level of cover has to be one in agreement between Health Care Surgical Pty Ltd and the arborist.
- It is recommended that Trees 4, 8, 9, 12, 13, 20 & 21 (7 in total) be retained and incorporated into the development. It is recommended that an area of 2.05 metres be set aside inside the subject property within the TPZ (Tree 9). This will allow the retention of Tree 9. No change in the soil profile or organic layer is allowed within this section of the TPZ in order to retain Tree 9. This includes no change to the soil or organic layer up to the proposed development within the TPZ (Trees 4, 8 & 9). The TPZ of Tree 12 is to be retained at existing soil levels including the organic layer. Tree 21 will require the existing kerb and garden bed to be retained. If these measures can be achieved will allow the retention of Trees 4, 8, 9, 12, 13 & 21. It is recommended that the existing garden beds be retained inside the section of TPZ during construction works. Replacement garden beds inside the TPZ are to be undertaken at the landscaping phase after completion of all construction and civil works on site. Replacement garden beds are to be undertaken by non-mechanised methods inside the TPZ. The applicant is to ensure no below ground excavation works occur to the retained portion of TPZ during the amelioration of the garden beds.
- It is recommended that all civil contractors that enter the site are made aware of the importance of preserving Trees 4, 8, 9, 12, 13 & 21 and understand the tree protection measures that are put in place to preserve Trees 4, 8, 9, 12, 13 & 21.
- All stockpile sites to be maintained a minimum 5 metres away from the trunk of Trees 4, 8, 9, 12, 13 & 21 and all other trees that come under the requirements of Maitland Council.

- It is recommended that all parking of vehicles and use of machinery be kept outside of the designated TPZ fenced areas (Trees 4, 8, 12, 13 & 21) during construction works. It is recommended that all parking of vehicles and use of machinery be kept to the existing hardstand areas. No machinery or vehicles are allowed to enter into the existing garden bed area within the TPZ. No placement or use of machinery is allowed within the existing garden bed areas during all civil and construction works on site as outlined in Figure 18.
- This report is not for publication to the internet and submission of this report in the submission phase set out by Council is to be taken down upon completion of the development application.

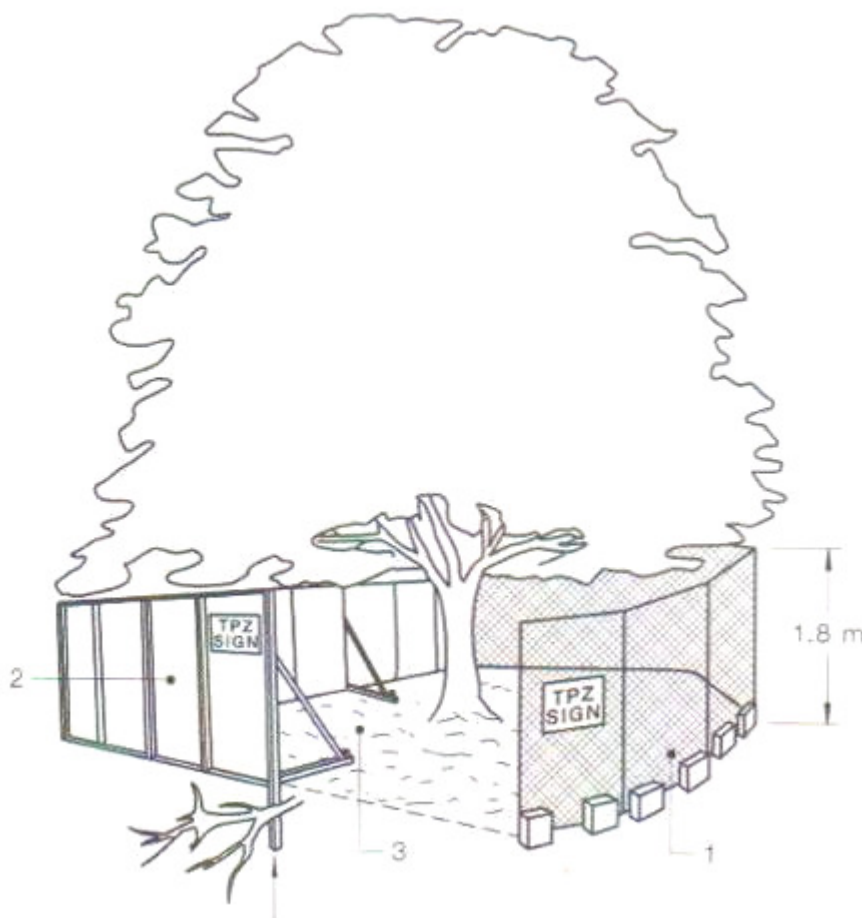


Figure 18 – showing the proposed fencing that is to be put in place prior to all civil and building works on site. The fencing is to occur to Trees 4, 8 & 9. The fencing is outlined in detail in Figure 20.

Bradley Magus (Member ISAAC & LGTRA)
 Consulting Arborist/Certified Arborist (ISAAC 2007)
 Diploma in Horticulture (Arboriculture) (AQF 5) (Dux)
 Bachelor of Horticulture Science

8.0 References

AS4373-2007 Pruning of Amenity Trees. Standards Australia

AS 4970 – 2009 Protection of trees on development sites

Clark R.J & Matheny N (1998) Trees & Development – A technical guide to Preservation of trees during land development: International Society of Arboriculture

Mattheck C., Breloer, (1999) The Body Language of Trees – a handbook for failure analysis 5th ed., London: The Stationery Office, U.K

Internet Sites

www.googlemaps.com.au

www.heritagensw.gov.au

www.rfs.nsw.gov.au

www.maitland.nsw.gov.au

www.planningportal.nsw.gov.au

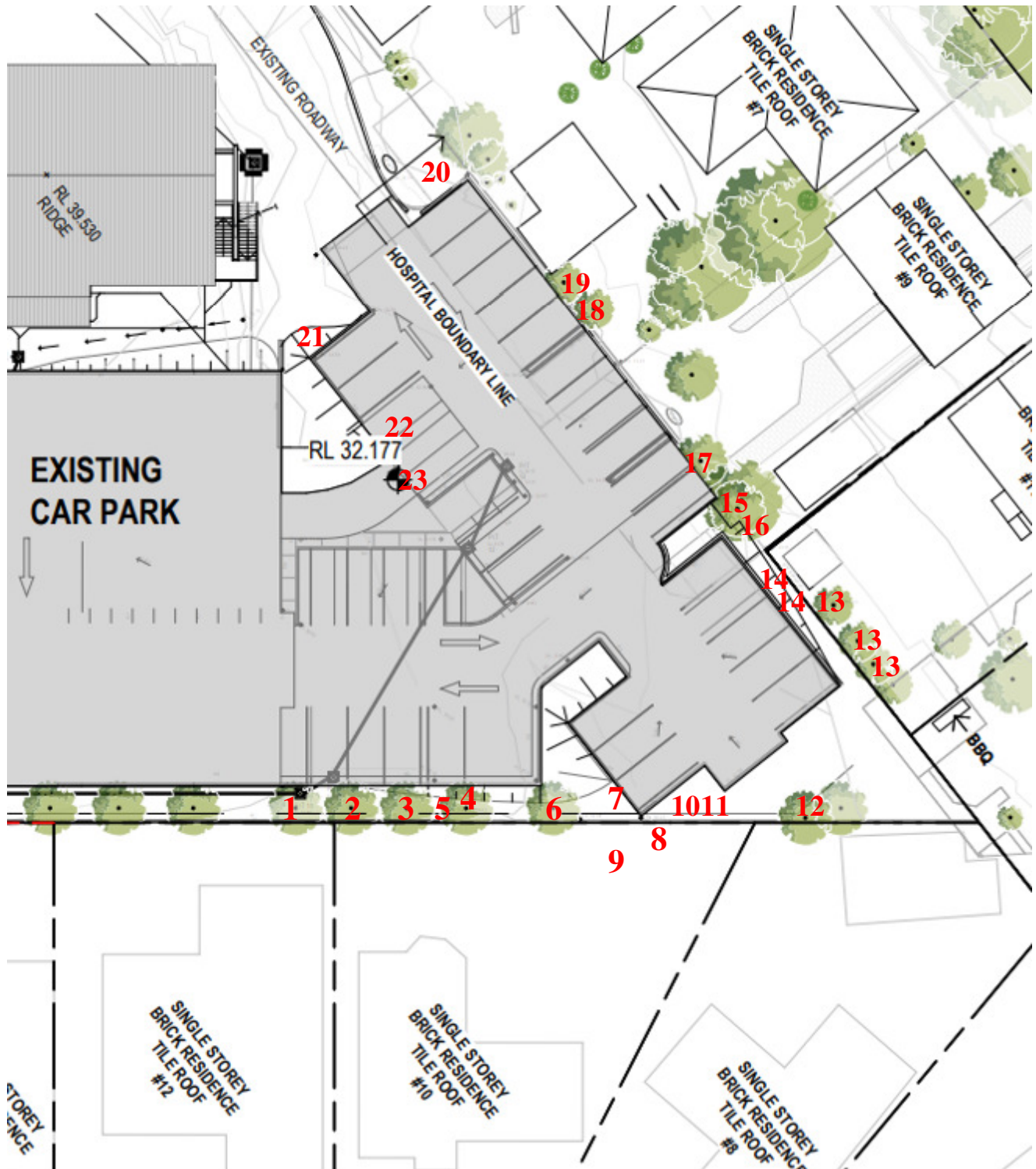


Figure 19 - Close up of the subject property and canopy area of Trees 1 - 23. Not to scale

Source: HSPC

© Abacus Tree Services Ph: 0425 203 049
Project: 173 – 175 Chisholm Road, Ashtonfield NSW 2323
Client: Health Care Surgical Pty Ltd
Date: 29 March 2023

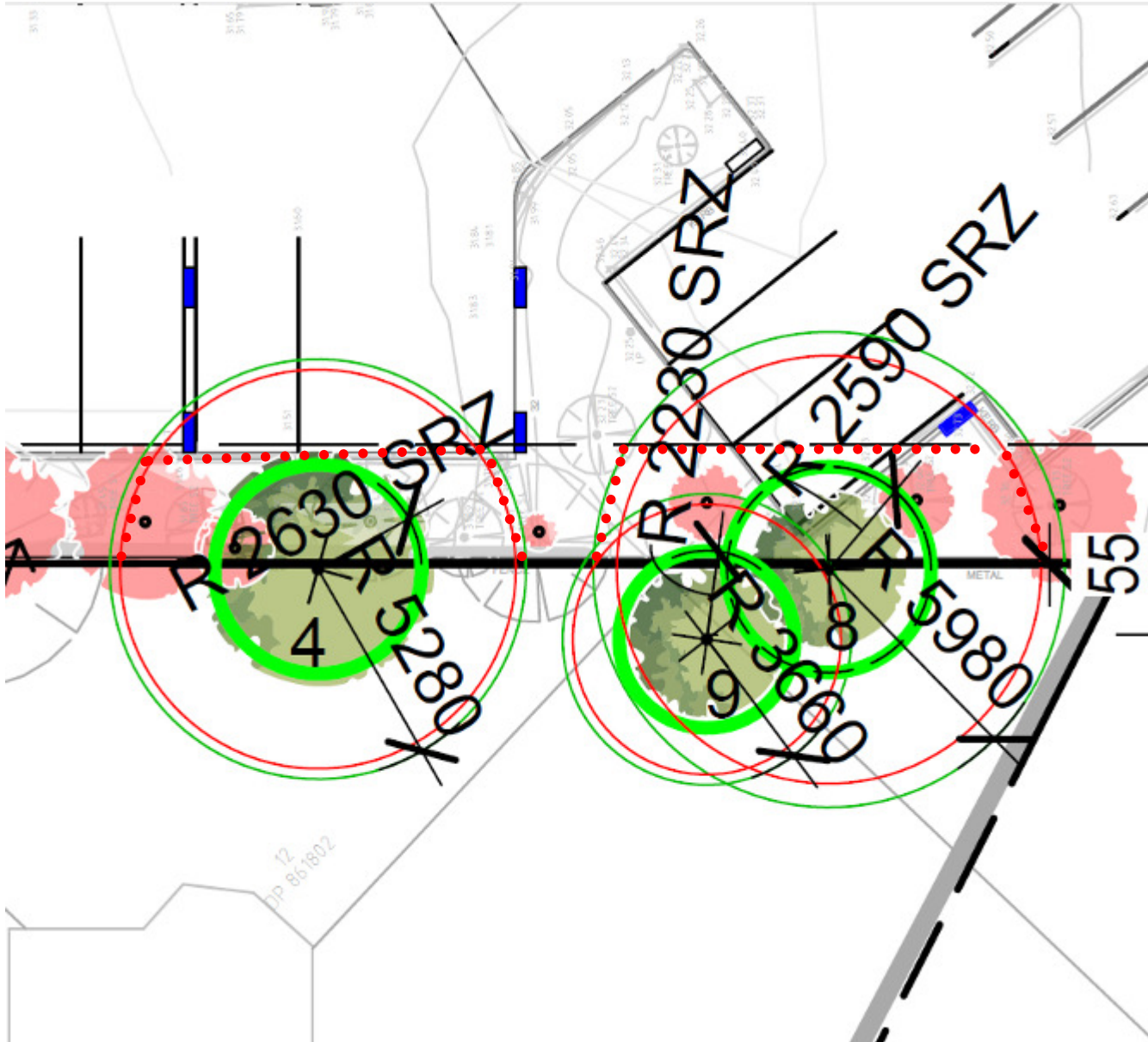


Figure 20 – showing the location of Trees 4, 8 & 9. These trees are to have a portion of the TPZ protected. This will include protection of the area of existing garden beds inside the TPZ. The red hashed areas show the fencing that is to be erected and protected before commencement of all civil and building works on site.

APPENDIX 2 U.L.E (Useful Life Expectancy) Categories and Subgroups

Useful Life Expectancy – Classification

1. Long ULE > 40 Years

- a. Structurally sound and can accommodate future growth
- b. Long term potential with minor remedial treatment
- c. Trees of special significance which warrant extra care

2. Medium ULE of 15-40years

- a. Will live between 15 – 40 years
- b. Will live for more than 40 years but would be removed for safety or other reasons
- c. May live for more than 40 years but will interfere with more suitable specimens and need removal eventually
- d. More suitable for retention in the medium term with some remedial care

3. Short ULE of 5-15 years

- a. Trees that may only live between 5 – 15 more years
- b. May live for more than 15 years but would need removal for safety or other reasons
- c. Will live for more than 15 years but will interfere with more suitable specimens or provide space for replacement plantings
- d. Require substantial remedial care but are only suitable for short term retention

4. Remove tree within 5 years

- a. Dead, dying or seriously diseased
- b. Dangerous trees through instability or loss of adjacent trees
- c. Structural defects such as cavities
- d. Damaged that are clearly not safe to retain
- e. May live for more than 5 years but will need replacement to prevent interference or make space for more suitable trees
- f. May or are causing damage to structures
- g. That will become dangerous

5 Trees suitable to transplant

- a. Small trees can be reliably moved or replaced
- b. Young trees between 5 – 15 years
- c. Trees that have been regularly pruned to control growth

| Key | Criteria | Comments |
|---------------------------------------|---|----------------------------------|
| Tree no | | |
| Species | Relates to the twenty three on the site plan | |
| Remnant /planted Self Sown | May be coded – See Key for details | |
| Special Significance | A – Aboriginal C- Commemorative Ha- Habitat Hi- Historic M- Memorial R- Rare U- Unique form O- Other | May require specialist knowledge |
| Age Class | Y- Young- Recently Planted S-Semi mature (<20% of life expectancy) M- Mature (20-80% of life expectancy) O- Over mature (>80% of life expectancy) | |
| Height | In Metres | |
| Spread | Average diameter of canopy in metres | |
| Crown Condition | Overall vigour and vitality 0 – Dead 1 – Severe decline (<20% canopy, major deadwood 2 – Declining 20-60% canopy density, twig dieback 3- Average/low vigour (60-90% canopy density, twig dieback) 4- Good (90-100% crown cover, little or no dieback or other problems) 5- Excellent (100% crown cover, no deadwood or other problems | |
| Failure Potential | Identifies the most likely failure and rates the likelihood that the structural defects will result in failure within the inspection period. 1- Low – Defects are minor (eg dieback of twigs, small wounds with good wound development) 2 – Medium – Defects are present and obvious egg Cavity encompassing 10-25% of the circumference of the trunk) 3 High- Numerous and/or significant defects present (eg cavity encompassing 30-50% of the circumference of the trunk, major bark inclusions) 4- Severe- Defects are very severe (eg fruiting | Requires specialist knowledge |

| | | |
|-------------------------------|---|---|
| | bodies, cavity encompassing more than 50% of the trunk) | |
| Size of defective part | Rates the size of the part most likely to fail. The larger the part that fails the greater the potential for damage. 1- Most likely failure less than 150mm in diameter 2- Most likely failure 150-450mm in diameter 3- Most likely failure 450-750mm in diameter 4- Most likely failure more than 750mm in diameter | |
| Target rating | Rates the use and occupancy that would be struck by the defective part: 1. Occasional use (jogging, cycle track 2. Intermittent use (e.g picnic area, day use parking 3. Frequent use, secondary structure (eg seasonal camping, storage facilities) 4. Constant use structures (year round use for a twenty three of hours each day, residences) | |
| Hazard rating | Failure potential + size of part + target rating Add each of the above sections for a twenty three out of 12 | The final twenty three identifies the degree of risk. The next step is to determine a management strategy. A rating in this column does not condemn a tree but may indicate the need for more investigation and a risk management strategy. |
| Root Zone | C-Compaction D- Damaged/wounded roots E- Exposed roots Ga- Tree in graded bed Gi- Girdled roots Gr- Grass K-Kerb close to tree L+- Raised soil level L- Lowered soil level M- Mulched | |

| | | |
|-------------------------------------|--|----------------------------------|
| | Pa- Paving concrete bitumen Pr- Roots pruned O-Other | |
| Defects | B-Borers C-Cavity D-Decay Dw-Deadwood E-Epicormics I-Inclusions L- Lopped LDCMP- Leaf damage by chewing mouthpiece insects M- Mistletoe/parasites MBA- Multi branch attachments PD- Parrot damage PFS- Previous failure sites S-Splits/Cracks T-Termites TL- Trunk lean TW- Trunk wound O-Other | |
| Services/adjacent structures | Bs- Bus stop Bu- Building within 3 metres Hvo- High voltage open wire construction Hvb- High voltage bundled (ABC) Lvo- Low voltage open wire construction Lvb- Low voltage bundled (ABC) Na- No services above Nb- No services below ground Si- Signage SL- Street light T- Transmission U- Underground services O- Other | More than one of these may apply |