

Arborist Report

Client: MMC Integrated Services Pty Ltd

**Address: 106 New England Highway,
LOCHINVAR N.S.W 2321**



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1.0 *Executive Summary*

- Abacus Tree Services have been requested to undertake a site inspection on four (4) trees in relation to the proposed development at 106 New England Highway, Lochinvar. The applicant proposes to undertake alterations and additions as outlined in Appendix 1. This includes change of use from dwelling to health consulting rooms. In order for the development to proceed in its current format will require the removal of Trees 1 - 4. Conditions and recommendations are outlined in section 7 of the report.

2.0 Arborist Details

<p>Bradley Magus</p> <p>Contact Details:</p> <p>P.O Box 333 Newcastle 2300 Ph: 0425 203 049</p> <p>Email: abacustrees@gmail.com or bradmagus1@bigpond.com Web: www.abacustreeservices.com</p>	<p>Qualifications</p> <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 MMC Integrated Services Pty Ltd to assist in the preparation of an arborist report. An assessment was made on four (4) trees (Trees 1 – 4) located within the confines of 106 New England Highway, Lochinvar. There is in total four (4) trees located at 106 New England Highway, Lochinvar 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 four (4) 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 11 April 2025.

The photographs included in this report were taken at the time of the inspection on the 11 April 2025.

2.2 Aims of this report/Procedure

The aim of this report is to assess the health and condition of four (4) trees (Trees 1 - 4). 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 (MMC Integrated Services Pty Ltd), for the preparation of a development application submission. Information in this report relates to four (4) trees (Trees 1 – 4) within the premises of 106 New England Highway, Lochinvar 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

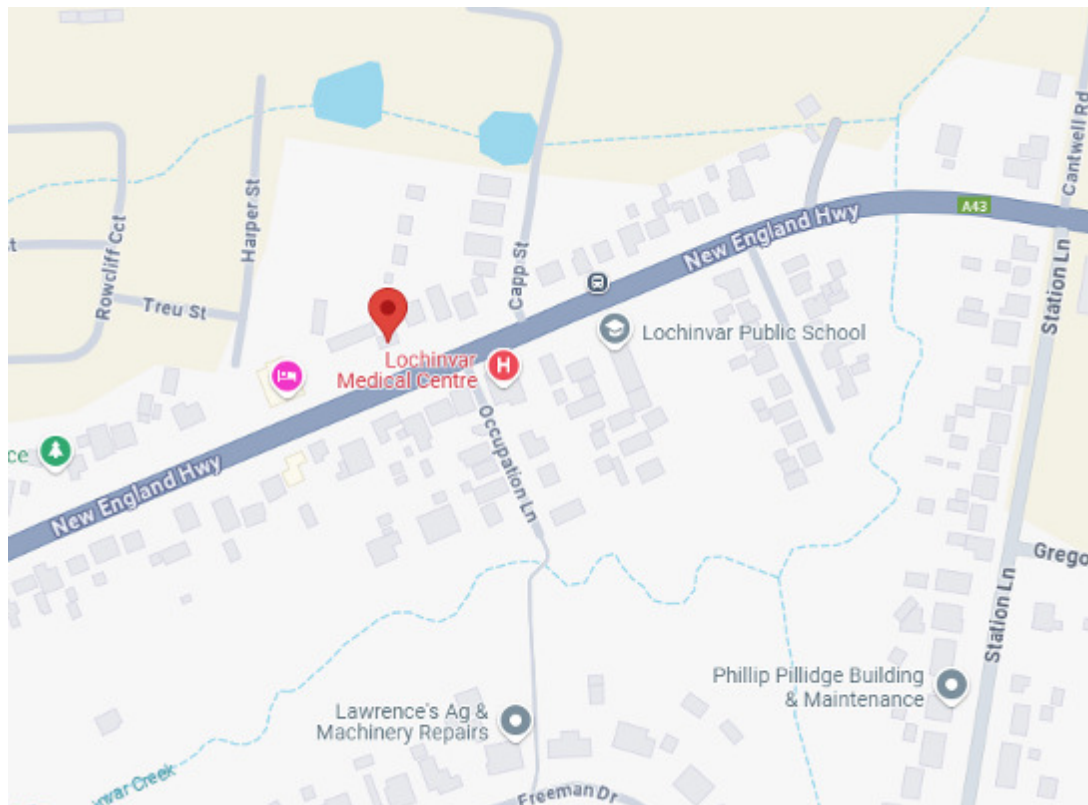


Figure 1

Location: The subject property is identified as 106 New England Highway, Lochinvar

Source: www.googlemaps.com.au

3.2 Site Description

Trees 1 – 4 are located wholly within 106 New England Highway, Lochinvar. The site is located in the municipality of Maitland City 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 - 4 located within the subject property identified as 106 New England Highway, Lochinvar. Trees 1 - 4 are located within close proximity to the subject property & proposed development.



Figure 2 – Location of subject property identified as 106 New England Highway, Lochinvar

4.0 Tree Schedule

Species & dimension requirements on Page 9. 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	Liquidambar formosana	Formosan Gum	280	10	YM	G	4,3,5,5	2d	Symmetrical, LCR = 95 – 100%
2	Callistemon viminalis	Bottlebrush	330,320	10	M	G	5,4,3,5	2d	Bifurcated at 0.4 metres above ground level, Symmetrical, LCR = 95 – 100%
3	Callistemon viminalis	Bottlebrush	340,325	8.5	M	G	4,5,4,4	2d	Bifurcated at 0.2 metres above ground level, MS at 1.4 metres above ground level.
4	Citrus X limon	Lemon Tree	90	3	M	F	1,1,1,1	3d	Symmetrical, LCR = 0%

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 MMC Integrated Services Pty Ltd to undertake an arborist (assessment) report on trees that come under the requirements of Maitland Council DCP (Part B.5 – Tree Management & trees that will be affected by the proposed development. There are four (4) trees that have been assessed within the subject property identified as 106 New England Highway, Lochinvar. Tree 1 is located within the backyard and Trees 2 - 4 are located within the front yard of the subject property. The applicant proposes to construct car parking and additional hardstand areas within the subject property identified as 106 New England Highway, Lochinvar (Appendix 1).

Abacus Tree Services has relied upon the sketch drawings provided by Complete Planning Solutions (Drawing number – Issue A) 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.

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	2.10	3.36
2	2.65	5.52
3	2.30	5.64
4	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 2.10 & 3.36 metres in accordance with Australian Standards 4970 - 2009. The proposed development is located outside of the TPZ. This includes the proposed car parking bays (1 – 4). The applicant would like to erect a shed and slab construction to the rear of the car parking bays. The proposed shed will be located within 1 metre of the trunk. After completion of the hardstand areas this is the only location that would be suitable. Any slab design would be inside the SRZ by 44.29%. This would remove a large percentage of the SRZ. This species is non-native and had a low landscape significance. Due to this the applicant would prefer to remove the tree in order to erect the shed. Tree 1 is earmarked for removal before commencement of civil works on site.



Figure 3 – showing the location of Tree 1 in the backyard of the subject property.

Tree 2 has been given an SRZ and TPZ of 2.65 & 5.52 metres in accordance with Australian Standards 4970 - 2009. Tree 2 is located in the front yard of the subject property. Tree 2 is located inside the proposed car parking and associated civil works. In order to construct the car parking at the front of the subject property will require the removal of Tree 2. Tree 2 is earmarked for removal before commencement of building works on site.



Figure 4 – showing the location of Trees 2 & 3 in the front yard of the subject property. Tree 2 is located inside the proposed hardstand area associated with the car parking. The proposed car parking and hardstand area will extend to the edge of the house as shown in red.

Tree 3 has been given an SRZ and TPZ of 2.30 & 5.64 metres in accordance with Australian Standards 4970 - 2009. Tree 3 is located in the front yard of the subject property. Tree 3 is located 1.2 metres to the proposed hardstand area and associated civil works. AS 4970 – 2009 indicates that the TPZ radius is taken from the centre of the trunk. This leaves a spatial separation of 1.49 metres from the centre of the trunk to the proposed carpark and associated civil works. The overall loss of TPZ has been calculated at 33.83% that doesn't comply with AS 4970 – 2009. The incursion into the SRZ has been calculated at 35.22% that will lead to loss of structural integrity. Tree 3 is earmarked for removal before commencement of building works on site.



Figure 5 – Tree 2 will be located inside the proposed car parking space. Tree 3 is located within close proximity to the proposed civil works associated with the car park. The works do not comply with AS 4970 – 2009. The shrub marked with an S is too small to come under council requirements.

Tree 4 has been given an SRZ and TPZ of 1.50 & 2.00 metres in accordance with Australian Standards 4970 - 2009. Tree 4 is located outside the scope of all civil and building works. This species doesn't come under council requirements and can be removed without council permission. Tree 4 is earmarked for removal before commencement of building works on site.



Figure 6 – showing the location of Trees 3 & 4.

6.0 Conclusions

- Abacus Tree Services has been approached by MMC Integrated Services Pty Ltd to undertake an arborist (assessment) report on trees that come under the requirements of Maitland Council DCP (Part B.5 – Tree Management & trees that will be affected by the proposed development. There are four (4) trees that have been assessed within the subject property identified as 106 New England Highway, Lochinvar. Tree 1 is located within the backyard and Trees 2 - 4 are located within the front yard of the subject property. The applicant proposes to construct car parking and additional hardstand areas within the subject property identified as 106 New England Highway, Lochinvar (Appendix 1). Trees 1 - 4 have been assessed in accordance with Australian Standards 4970 – 2009.
- Trees 1 – 4 are located wholly within 106 New England Highway, Lochinvar. The site is located in the municipality of Maitland City 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 106 New England Highway, Lochinvar is not located in a Rural Fire Service (RFS) 10:50 area. Therefore all trees have been assessed in accordance with council requirements with no exemptions under RFS 10:50 legislation. The search was undertaken on the 17 April 2025. 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.
- 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 that wouldn't comply with AS 4970 - 2009. The applicant has assessed all trees necessary for the development to meet the requirements of Maitland DCP & Australian Standards 4970 – 2009.
- In order for the development to proceed in its current format will require the removal of Trees 1 - 3 (3 in total). This includes all trees inside the proposed hardstand areas and those that do not pass the requirements of AS 4970 – 2009. Tree 4 doesn't come under council requirements and can be removed without council permission. All other shrubs marked on the survey do not come under council requirements. Conditions and recommendations in relation to retained trees will be outlined in section 7 of the report.

7.0 Recommendations

- It is recommended that MMC Integrated Services Pty Ltd embark on a management program for four (4) trees (Trees 1 – 4) before commencement of the proposed building and constructions works as follows:
- It is recommended that Trees 1 - 4 (4 in total) be removed immediately (before commencement of building works) 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 MMC Integrated Services Pty Ltd and the arborist.
- 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.

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

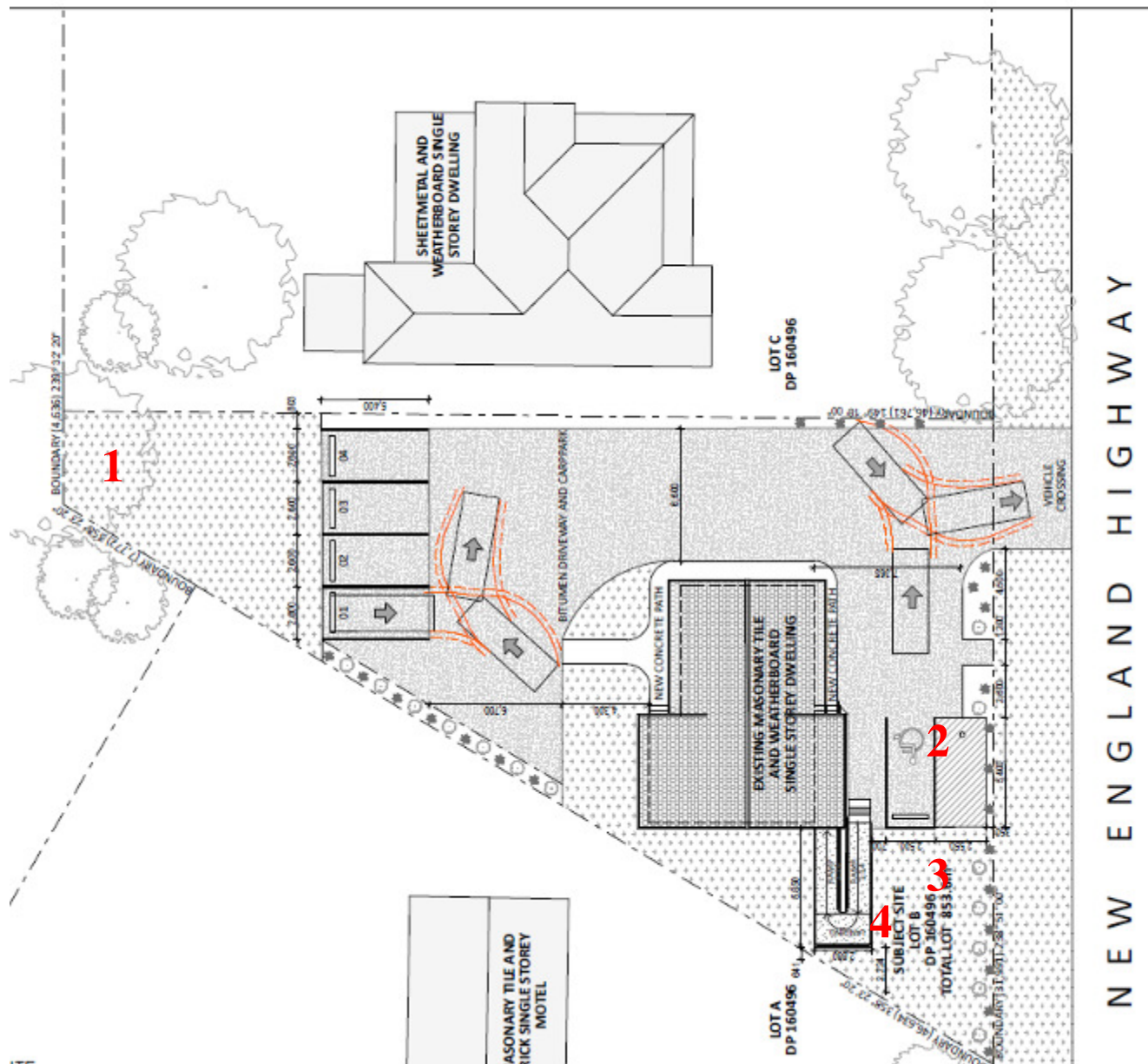


Figure 7 - Close up of the subject property and canopy area of Trees 1 - 4. Not to scale

Source: Complete Planning Solutions

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 four 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	<p>Rates the size of the part most likely to fail. The larger the part that fails the greater the potential for damage.</p> <p>1- Most likely failure less than 150mm in diameter</p> <p>2- Most likely failure 150-450mm in diameter</p> <p>3- Most likely failure 450-750mm in diameter</p> <p>4- Most likely failure more than 750mm in diameter</p>	
Target rating	<p>Rates the use and occupancy that would be struck by the defective part:</p> <p>1. Occasional use (jogging, cycle track)</p> <p>2. Intermittent use (e.g picnic area, day use parking)</p> <p>3. Frequent use, secondary structure (eg seasonal camping, storage facilities)</p> <p>4. Constant use structures (year round use for a four of hours each day, residences)</p>	
Hazard rating	<p>Failure potential + size of part + target rating</p> <p>Add each of the above sections for a four out of 12</p>	<p>The final four 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.</p>
Root Zone	<p>C-Compaction</p> <p>D- Damaged/wounded roots</p> <p>E- Exposed roots</p> <p>Ga- Tree in graded bed</p> <p>Gi- Girdled roots</p> <p>Gr- Grass</p> <p>K-Kerb close to tree</p> <p>L+- Raised soil level</p> <p>L- Lowered soil level</p> <p>M- Mulched</p> <p>Pa- Paving concrete bitumen</p>	

	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