ARBORICULTURAL REPORT
MOUNT LILYDALE MERCY COLLEGE, 120 ANDERSON STREET, LILYDALE

February 2024

PREPARED BY

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1 Introduction

1.1 John Patrick, consulting arborists, have been engaged by Mount Lilydale Mercy College to prepare an arboricultural report for Mount Lilydale Mercy College, 120 Anderson Street, Lillydale, to accompany planning application documents for the site.

2 Objectives

2.1 The intent of this report is to:

- Assess the condition of trees within and immediately adjacent to the proposed works area and estimate the extent of any impact.

2.2 The report will include the following;

- Botanic / Common names
- Tree Location
- Canopy width and height
- DBH (trunk diameter)
- Tree health & structure condition
- Useful Life Expectancy (ULE)
- Tree Protection Zones (TPZ's) in accordance with AS-4970
- Arboricultural value
- Other tree characteristics of consideration.

3 Methodology

3.1 The site was visited on the 31st October 2023 and a visual assessment of the subject trees was undertaken from ground level. Each tree was assigned an identification number for reference purposes, denoted on the attached Tree Location and Impact Assessment Plan (Section 5).

3.2 Trees identified with a DBH of 150mm or less were not assessed in this report unless rare or of unusual attributes.

3.3 No aerial or diagnostic testing was undertaken as part of this assessment.

3.4 The DBH of trees was measured using a diameter tape measure at 1.4m above ground level in accordance with AS4970-2009 *Protection of trees on development sites*.

3.5 Heights and widths of canopies were estimated.

4 Observations

EXISTING CONDITIONS

4.1 The subject area is located within the grounds of Mount Lilydale Mercy College. It currently consists of a garden bed and area of lawn on an embankment located to the west and north-west of a large two-storey brick building. The existing garden consists of mostly small Australian native trees with an understorey of mixed native and exotic shrubs and perennials.

VEGETATION CONTROLS

4.2 An internet search of VicPlan and relevant planning scheme maps reveals that the site is covered by Schedules 23 to Clause 42.03 Significant Landscape Overlay (SLO23) of the Yarra Ranges Planning Scheme.

4.3 The vegetation permit requirements of these overlays are as follows:

SLO23

> A permit is required to remove, destroy or lop any substantial tree. A substantial tree is defined as having a diameter at breast height (DBH) greater than 0.26 metres at 1.3 metres above the ground. (Equivalent to 0.8 metres circumference).

Note: It is recommended that vegetation controls be confirmed with the local authority prior to any tree removal.

TREE INFORMATION

4.4 A total of six trees were assessed. Information on these can be found in the following table.

TREE DATA

Tree No.	Botanic Name	Common Name	Size (m) HXW	DBH CALC	TPZ (m)	Age	Health	Structure	ULE (Yrs.)	Arb Value	Comments	SLO23 Permit
1	*Callistemon sp.*	Bottlebrush	6 x 5	15/12	2.3	Mature	Fair	Fair	5-10	Low		Yes
2	*Fraxinus excelsior* 'Aurea'	Golden Ash	10 x 10	44	5.3	Maturing	Good	Good	20+	High		N/A (to be retained)
3	*Callistemon sp.*	Bottlebrush	4 x 4	15/10/10	2.5	Mature	Fair	Poor	5-10	Low	Codominant from base with crossing scaffolds	Yes
4	*Agonis flexuosa*	Willow Myrtle	4 x 3	Multi-stemmed	2.0	Semi-Mature	Good	Poor	5-10	Low	Multi-stemmed from base.	Yes
5	*Agonis flexuosa*	Willow Myrtle	6 x 6	15/15/15	3.1	Semi-Mature	Good	Fair	20+	Low		Yes
6	*Agonis flexuosa*	Willow Myrtle	5 x 4	15	2.0	Semi-Mature	Good	Fair	20+	Low		No

Trees 1 (right) and 2

Trees 3 (right) and 4

Trees 5 (right) and 6

5 Discussion

5.1 A new canteen, dining area and staff offices are proposed for the site. The following plans have been reviewed and form the basis of the following impact assessment:

MLMC Stage 4
SD.02 Demolition Works Plan
Prepared by Cirillo Architects, 10 Nov 2023 Rev D

Landscape Concept
Prepared by Tract, 20 July 2021

5.2 This report assumes that the levels, dimensions and drawings provided by the architects named within this report are correct as these have been used as the basis for this impact assessment.

SITE TREES

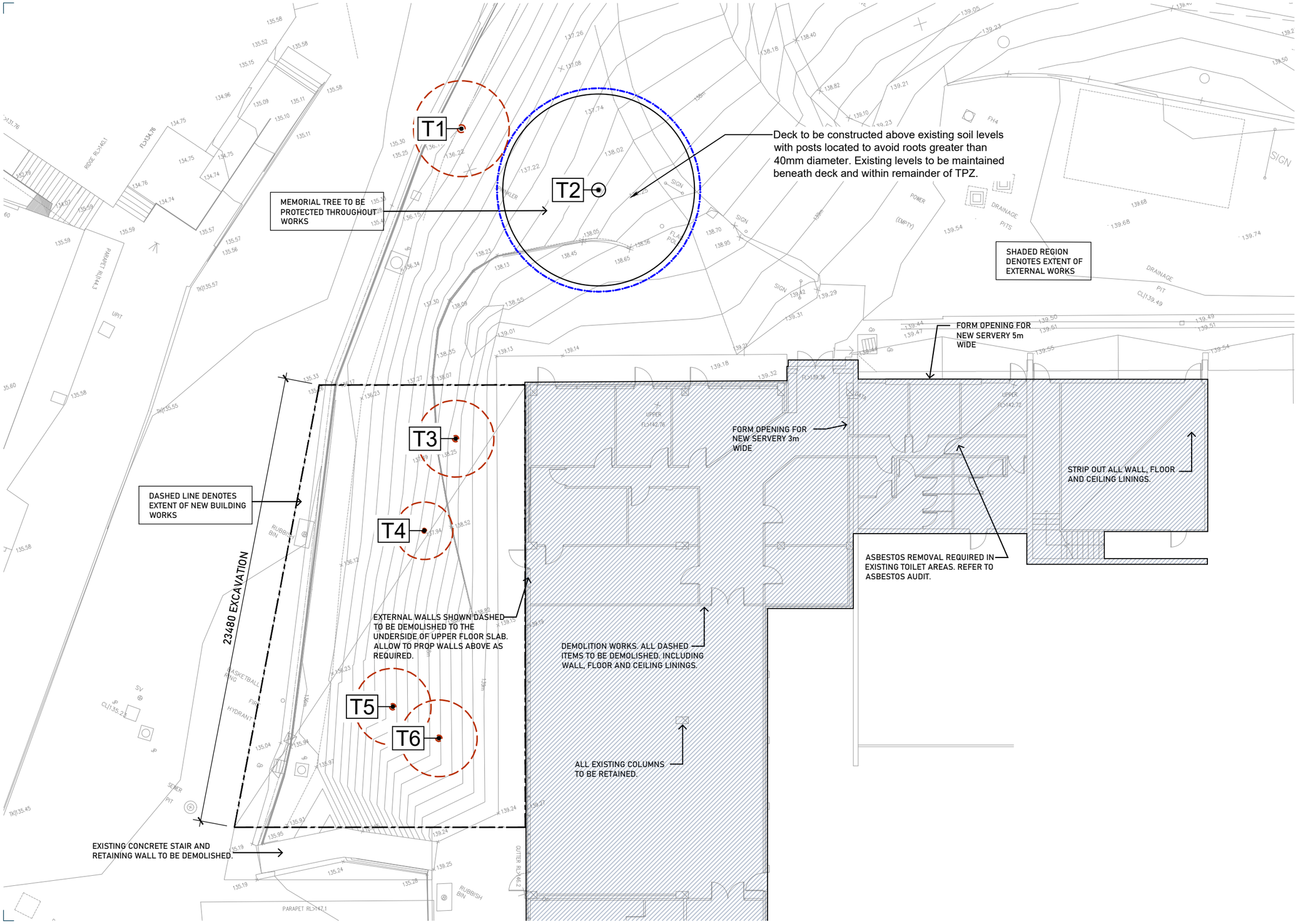
5.3 Trees 3 – 6 are located within the footprint of the proposed building and will therefore require removal. All four trees are of low arboricultural value.

5.4 A landscape plan prepared for the site also indicates removal of Tree 1, Bottlebrush. This tree is also of low arboricultural value.

5.5 Tree 6 is below the size that requires a permit for its removal under SLO23.

5.6 Trees1, 3, 4 and 5 will all requirement permits for their removal under SLO23.

5.7 A landscape plan prepared for the site proposes a deck around Tree 2. Provided this is constructed completely above existing soil levels with posts located to avoid roots greater than 40mm in diameter, it is not expected to negatively impact the long-term healthy retention of this tree. Existing soil levels must be maintained in the remainder of their TPZs and under the deck itself, this includes no fill greater than 100mm depth.



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PROJECT
RESIDENTIAL DEVELOPMENT

ADDRESS
120 Anderson Street, Lilydale - Mount Lilydale Mercy College

DRAWING
Impact Assessment Plan

SCALE	1:200 @A3
DATE	FEB 2024
DRAWN	CY
CHECKED	KM
JOB NO	23-553 IAP
DWG NO	TLP01

6 Conclusion

6.1 A total of six trees were assessed.

6.2 Four trees (Trees 3-6) will require removal to accommodate the proposed development, with the landscape plan prepared for the site proposing the removal of a fifth tree (Tree 1). All five trees are of low arboricultural value.

6.3 Trees 1, 3 – 5 will all require a permit for their removal under SLO23. Tree 6 is below the size requiring a permit for its removal under SLO23.

6.4 The proposed works are not expected to negatively impact Tree 2 provided a deck proposed around this tree is constructed above existing soil levels, with existing levels (up to 100mm of fill acceptable) maintained beneath the deck and within the remainder of its TPZ.

7 Recommendations

7.1 Protective fencing be erected to isolate Tree 2 from the proposed works. This can be removed for deck construction and landscaping installation.

8 Descriptors

Tree Number:
Refers to the identification number for reference purposes, denoted on the Tree Data and Tree Survey Plan.

Botanical Name:
Botanical name of species, based on nomenclature and spelling in Spencer, R 1995, *Horticultural flora of South Eastern Australia* (vols. 1-5), University of NSW Press, Sydney. Where Eucalyptus spp. are not found in this source, nomenclature is based on Euclid: Eucalypts of Australia, 2006, Centre for Australian National Biodiversity Research (CANBR). Eucalypt subspecies information is also based on this source.

While accurate tree identification is attempted, and uncertainties are indicated, some inaccuracies in tree identification may still be present – especially in the case of difficult to determine genera (e.g. *Cotoneaster* and *Ulmus*), and with cultivars which can have similar characteristics.

From time to time taxonomists revise plant classification, and name changes are assigned. If it is known names have been revised post the publication of the relevant above listed source, the new nomenclature has been used.

Common Name:
Common names are based primarily on names and spelling used by Spencer in Horticultural Flora of South Eastern Australia (vols 1-5). The source of common names is taken in the following order:

- Single name supplied in Horticultural Flora of South Eastern Australia;
- First in list of names supplied in Horticultural Flora of South Eastern Australia, unless another name in the list is deemed more appropriate;
- Common name as per Costermans, LF 2006, *Trees of Victoria and adjoining areas*; Costermans Publishing, Victoria.
- Most widely used common name if not available in either source previously mentioned.

Common names are provided for thoroughness; the botanical name should be used when referring to the tree taxon.

Age:
Juvenile: Tree has recently been planted and is still in establishment phase. Tree currently makes little contribution to the amenity of the landscape. Trees of this age are possible candidates for relocation during development.

Semi-mature: Tree has established but has not yet developed mature habit. The tree provides some landscape contribution. Tree size would still be expected to increase considerably provided there are no significant changes to existing growing conditions.

Maturing: Tree has developed mature structural habit but has substantial potential to increase in size.

Mature: Tree has or is close to reaching full potential and expected size. Growth rate has slowed, however the tree does not exhibit any major signs of health or structural weakness due to age.

Over mature: Tree is no longer actively putting out extension growth, and is starting to show signs of decline in health due to age. Canopy may thinning and signs of die back in the canopy may be present

Height: The tree's height in metres

Width: The tree's average canopy width in meters. Variations in canopy width to that stated may be present due to canopy asymmetry.

DBH: The tree's trunk Diameter at Breast Height. Measured at 1.4m above ground level, in accordance with *AS4970 Protection of trees on development sites*, unless specified as having been measured lower. DBH may be estimated or measured, as specified in the report. In the case of multi-stemmed trees, stem diameter is either listed individually, or a measurement taken at a point lower than the point of stem divergence. In some cases, especially where trees are not considered worthy of retention or stems are too numerous the DBH may simply be listed as 'multi-stemmed'.

Health:

Good: Tree is not stressed and shows no obvious signs of pest or disease. It is free of wounding. Annual growth rate is as would be expected of a healthy specimen in the same area. There are no signs of die back and canopy is dense. Tree maybe partially suppressed by neighbouring trees.

Fair: Tree is showing signs of reduced health. It maybe drought stressed or show partial signs of pest or disease. Foliage density is less than optimal and minor die back may be present. Tree is typical of its species. Remedial works may improve tree health.

Poor: Tree exhibits signs of stress, e.g. sparse canopy and possibly stunted growth. A large number of dead branches or dieback are present. Tree is likely to be significantly affected by pests or disease. Tree often in decline. Remedial works not expected to improve long-term health.

Dead: Tree shows no signs of life and is not growing.

Note on Deciduous Species: Assessment of deciduous species can be problematic and results may vary depending on the time of year. Descriptor comments in relation to foliage density do not apply to deciduous trees assessed when dormant or entering or exiting dormancy. Time of leaf drop or bud burst and extent of bud swell may be considered in the health rating of these trees.

The ratings indicate that certain characteristics listed have, or have not, been observed. Inspections do not assess the entire tree in detail for each characteristic. The comments category should be referred to for further information.

Structure:

As a rule, the structure rating is based on identified faults in tree habit which reduce the structural integrity and may lead to partial or entire tree failure. It must be noted, however, that this is not a full hazard or failure assessment.

Good: Tree appears to have no obvious structural defects which would diminish the tree's structural integrity.

Fair: The tree has one or more obvious structural defects. e.g. dead branches or codominant stems, however the observed defects are unlikely to prevent retention of the tree. Judicious remedial intervention could remove structural defects and improve the structure rating.

Poor: Tree has at least one or more structural defects that remedial intervention cannot rectify without significantly reducing the retention value of the tree. These defects reduce the useful life expectancy of the tree.

Hazardous: The tree shows one or more structural faults that are prone to failure and present an immediate safety concern. Judicious intervention to remove structural faults and reduce safety risk would leave a tree not worthy of retention. These trees should be removed as a high priority.

Arboricultural Value:

The Arboricultural Values shown in the table below are based on the ULE of the tree which considers structure and health ratings and landscape contribution.

The arboricultural value assists in determining the positioning of structures and infrastructure outside the tree's identified TPZ.

ULE	Landscape Significance			
	High	Medium	Low	Very Low
20+ yrs.	High Arboricultural			
10-20 yrs.	Medium Arboricultural Value			
5-10 yrs.				
0-5 yrs.	Low Arboricultural Value			
0 yrs.	No Arboricultural Value			

ULE: The Useful Life Expectancy of the tree from a health, structure, amenity and weediness viewpoint given no significant changes to the current situation occur. This category is difficult to determine, and should be taken as an estimate only. In addition, factors not observed at the time of inspection can lead to tree decline.

- 0 yrs.: Tree should be removed due advanced decline/ dead or hazardous.
- 0-5 yrs. Tree is in decline and has poor health or structural faults which cannot be resolved by intervention. Tree is often over- mature.
- 5-10yrs. Tree of fair health or structure
- 10-20. Semi-mature or mature tree of fair health and structure
- 20+ yrs. Juvenile or semi-mature, or a long lived species of good health and structure.

TPZ (Tree Protection Zone):

The Tree Protection Zone of the tree, measured as a radial distance in metres from the centre of the trunk. The TPZ is calculated using the method specified in Australian Standard *AS4970-2009 Protection of trees on development sites*. 12 x DBH=TPZ

Recommendation:

i.e. Further exploratory root investigation, alterations to proposed works to allow tree retention.

Comments:

Any additional comments specific to individual tree specimens.

AS4970-2009:

The recognised Australian Standard for the 'Protection of Trees on Development Sites'. It provides guidelines on tree protection and formulas for calculating Tree Protection Zones (TPZs), Structural Root Zones (SRZs) and the Diameter at Breast Height (DBH).

AS-4373-2007:

The recognised Australian Standard for the 'Pruning of Amenity Trees'. This Standard provides guidelines on tree pruning to encourage good health and structure.

Ecological Vegetation Class (EVC):

A type of native vegetation classification that is described through a combination of its floristics, life form and ecological characteristics, and through an inferred fidelity to environment attributes. Each EVC includes a collection of floristic communities (i.e. lower level in the classification that is based solely on groups in the same species) that occur across a biogeographic range, and although differing in species, have similar habitat and ecological processes operating.