ARBORICULTURAL REPORT 24 JESSIE STREET, COBURG.

12 APRIL 2024.

ADVERTISED PLAN

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CONTENTS

1		3
2	OBJECTIVES	3
3	METHODOLOGY	3
4	OBSERVATIONS	4
	Tree Data	5
	Images	6
	Vegetation Controls & Tree Removals	8
5	DISCUSSION	9
	Site Trees	9
	Neighbouring Trees1	0
6	CONCLUSION1	1
7	TREE IMPACT ASSESSMENT PLAN1	2
8	DESCRIPTORS1	3



1 INTRODUCTION

- 1.1 Uniting Victoria Tasmania have engaged John Patrick Landscape Architects Arboricultural Consultants, to prepare an Arboricultural Report – Tree Impact Assessment Report for the subject site known as 24 Jessie St, Coburg.
- 1.2 They are proposing to redevelop the subject site and construct a 4-storey building fronting Jessie St and a 3- storey building fronting hall St, (DKO, Project No. 00013106, 25/03/2024).

2 OBJECTIVES

- 2.1 The intent of this report is to.
 - Assess the condition of trees within the subject site and those on neighbouring land that may have their Tree Protection Zones (TPZ) impacted by the proposed redevelopment and estimate the extent of any impact in accordance with AS-4970 Protection of Trees on Development Sites.
 - Identify any trees worthy of retention and provide preliminary arboricultural advice to assist in their protection and retention.
- 2.2 The report will include the following.
 - Tree Number.
 - Botanic / Common names.
 - Canopy width and height.
 - DBH (trunk diameter).
 - Tree health & structural condition.
 - Useful Life Expectancy (ULE).
 - Tree Protection Zones (TPZ's).
 - Arboricultural Value.

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3 METHODOLOGY

- 3.1 A suitably qualified and experience arborist minimum AQF Level 5 or equivalent in arboriculture visited the site on Thursday 06 April 2023 and a visual tree assessment (VTA – Claus Mattheck) of trees within and directly neighbouring was undertaken from the ground.
- 3.2 This report assumes that the levels, dimensions and drawings provided by the surveyors and architects named within this report are correct as these have been used as the basis for this impact assessment.
- 3.3 Each tree was assigned an identification number for reference purposes, denoted in the Tree Data and on the Tree Impact Assessment Plan, which is based on the Feature Survey, (Geomatics, Ref No. 202829, 29/04/2022).

- Site trees identified with a DBH of 100mm or less (e.g. shrubs) were not assessed in this report unless rare or of unusual attributes.
- The DBH of trees, was measured using a diameter tape, in accordance with AS-4970.
- Where access was not available to the trunk, e.g., neighbouring trees, DBH's were estimated.
- Heights of trees were measured using a laser range finder.
- Widths were calculating by stepping out.
- Tree Protection Zones (TPZ's) were calculated in accordance with AS-4970.
- TPZ encroachments were calculated utilising Computer Added Design (CAD) software.

4 **OBSERVATIONS**

- 4.1 The subject site is located on the northern side of Jessie St facing south and is 5,980m2 in size.
- 4.2 The site consists of a double storey 1970's brick building with a single storey detached weatherboard building at the rear and several small sheds.
- 4.3 There is vehicle assess from Jessie St to a formal asphalt carpark on the western boundary and from Hall St at the rear to a large gravel carpark. On the eastern boundary off Jessie St there is another vehicle access that allows access up to the front of the building for quip drop off.
- 4.4 Ther are no formal gardens on the site. It consists of mainly open expanse of lawn at the front with a row of Penicil Pines along the Jessie St frontage and a large Moreton Bay Fig that is heritage listed, dominating the front.
- 4.5 Other smaller trees are scattered around the site and four trees are growing in the narrow nature strip of Hall St.



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Image 1: Site Aerial – Latest Nearmap Image – November 2023.

TREE DATA

Table	e 1: Tree Data											
Tree No.	Botanic Name	Common Name	Origin	Size (m)	DBH (cm)	TPZ (m)	Age	Health	Structure	ULE (Yrs.)	Arb Value	С
1	Cupressus sempervirens (x52)	Pencil Pine	Exotic	13 x 2	33	4.0	Mature	Good	Good	20+	Medium	
2	Ficus macrophylla	Moreton Bay Fig	Aust. Native	11 x 23	300	15.0	Mature	Fair	Good	20+	High	Н
3	Pittosporum tenuifolium (hedge)	Small Leaf Pittosporum	Exotic	6 x 2	10	2.0	Mature	Good	Fair	5-10	Low	
4	Cupressocyparis x leylandii	Leyland Cypress	Exotic	11 x 3	38	4.6	Mature	Good	Good	20+	Medium	Ir
5	Jacaranda mimosifolia	Jacaranda	Exotic	3 x 5	10	2.0	Semi-Mature	Good	Fair	20+	Low	
6	Pyrus calleryana	Callery Pear	Exotic	6 x 6	12/12/12	2.5	Mature	Good	Fair	5-10	Low	
7	Fraxinus angustifolia	Narrow-leaved Ash	Exotic	12 x 10	60	7.2	Mature	Fair	Fair	10-20	Low	D
8	Allocasuarina torulosa (x3)	Rose She-oak	Aust. Native	7 x 4	25	3.0	Mature	Good	Good	20+	Low	
9	Callistemon viminalis (x2)	Weeping Bottlebrush	Aust. Native	5 x 6	10	2.0	Semi-Mature	Poor	Poor	0-5	Low	
10	Acacia floribunda	White Sallow Wattle	Vic. Native	7 x 5	25	3.0	Mature	Good	Good	5-10	Low	
11	Lagerstroemia indica	Crepe Myrtle	Exotic	6 x 7	10/10/10/10	2.4	Mature	Good	Good	20+	Low	
12	Banksia integrifolia	Coast Banksia	Vic. Native	6 x 2	10	2.0	Semi-Mature	Good	Good	20+	Low	
13	Callistemon citrinus (x3)	Crimson Bottlebrush	Vic. Native	6 x 3	Multi 8	2.2	Semi-Mature	Fair	Poor	0-5	Low	
14	Cupressocyparis x leylandii	Leyland Cypress	Exotic	10 x 4	35/35	5.9	Mature	Good	Poor	5-10	Low	
15	Cupressocyparis x leylandii	Leyland Cypress	Exotic	9 x 4	37	4.4	Mature	Good	Good	10-20	Low	
16	Olea europaea	Olive	Exotic	5 x 3	15	2.0	Semi-Mature	Good	Fair	20+	Low	
17	Melaleuca linarifolia	Snow In Summer	Aust. Native	7 x 7	70	8.4	Mature	Fair	Fair	10-20	Medium	1 G
18	Melaleuca linarifolia	Snow In Summer	Aust. Native	6 x 6	40	4.8	Mature	Fair	Fair	10-20	Medium	G
19	Acer sp.	Maple	Exotic	1.5 x 0.5	2	2.0	Juvenile	Fair	Fair	20+	Low	G
20	Melaleuca linarifolia	Snow In Summer	Aust. Native	6 x 7	80	9.6	Mature	Fair	Fair	10-20	Medium	S: si
21	Callistemon citrinus	Crimson Bottlebrush	Vic. Native	6 x 5	15/15	2.5	Mature	Fair	Fair	5-10	Medium	G
22	Melaleuca linarifolia	Snow In Summer	Aust. Native	6 x 5	25/35	5.2	Mature	Fair	Fair	10-20	Medium	G
23	Acer sp.	Maple	Exotic	1.5 x 0.5	2	2.0	Juvenile	Fair	Fair	20+	Low	G
24	Callistemon citrinus	Crimson Bottlebrush	Vic. Native	6 x 5	35	4.2	Mature	Good	Fair	5-10	Medium	G

Note: Trees to be retained including neighbouring trees must be protected in accordance with AS-4970 and their TPZs encroached no greater than 10% unless further investigation e.g. non-destructive root investigation (NDRI) shows that greater encroachement will not impact on the trees viability to be retained in its present condition.



Comments
las heritage value.
n neighbours at 22 Jessie St.
Dead branches in upper canopy.
7 & 18 supressing each other on footpath side.
Growing in road reserve of Hall St.
browing in road reserve of Hall St.
Growing in road reserve of Hall St.
20, 21 & 22 supressing each other on footpath
Srowing in road reserve of Hall St
Growing in road reserve of Hall St
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Growing in road reserve of Hall St

IMAGES



Image 2: Jessie St frontage.

Image 3: Looking south-east from western front cnr of building.



Image 5: looking north-west from the front south-east cnr.





Image 4: Trees 5 & 6.



Image 6: Trees 3 looking sth.



Image 6: Trees 8 looking nth.

Image 7: Trees 14 & 15 looking nth.



Image 9: Tree 10.



Image 10: Looking west from rear carpark.



Image 11: Hall St frontage.

Image 8: Trees 11 & 12 looking west.





VEGETATION CONTROLS & TREE REMOVALS

- 4.6 It is proposed to remove all trees on the site which includes, the western end of the row of Trees 1, approximately twenty specimens, along with Trees 3, 5 16, 18, 20, and 22.
- 4.7 The eastern the end approximately two-thirds of the row of Trees 1 is to be retained. Along with the heritage listed Tree 2.
- 4.8 A search of the Vic Plan website <u>https://mapshare.vic.gov.au/vicplan/</u> identified a Heritage Overlay on the site Schedule HO573 protecting Tree 2 The Ficus macrophylla – Moreton Bay fig.

Map ref	Heritage place	External paint controls apply?	Internal alteration controls apply?	Tree controls apply?
573	24 Jessie Street, Coburg - Moreton Bay Fig Map 11HO	No	No	Yes (Moreton Bay Fig)

4.9 A search of the Merri-bek (Moreland) website identified General Local Law 2018.

A person must not, without a permit:

- (a) remove, prune, damage, kill, destroy, or direct, authorise or allow to be removed, pruned, damaged, killed or destroyed a mature tree.
- (b) carry out, or direct, authorise or allow to be carried out, any works within the Tree Protection Zone of a mature tree; or
- (c) remove, prune, damage, kill, destroy, or direct, authorise or allow to be removed, pruned, damaged, killed or destroyed a tree required to be planted as a condition of a permit.

Clause 2.5 does not apply to

- (a) a person whose actions are required by any other legislation or by any other statutory authority.
- (b) a person acting in accordance with a planning permit or an instruction or direction from an Authorised Officer.

Mature tree means a tree that:

- (a) is taller than 8 metres; and
- (b) has a trunk that is 400mm or wider measured 1.2 metres above ground level: or
- (c) has multiple trunks with a combined diameter that is 400mm or wider measured 1.2 metres above ground level: or
- is listed on Council's Significant Tree Register.



- 4.10 Trees 7, 14 and 15 would require a permit to remove in accordance with the Local law.
- 4.11 Trees 18, 20 and 22 have trunk diameters of greater than 400mm but they are all under 8m high height requirement.
 - Note: It is recommended that vegetation controls be confirmed with the Responsible Authority prior to any tree removal.

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5 DISCUSSION

SITE TREES

- 5.1 Trees 1 is proposed to have approximately 18m of the western end of the row of trees, approximately twenty specimens, removed. No permits are required. The remainder of the row is not expected to be detrimentally impacted if the last few trees on the eastern end of the trees to be removed, adjacent to trees to be retained, are removed carefully by dismantling and grinding stumps to protect the roots and canopy of trees to be retained. The last couple of trees next to specimens to be retained cannot be ripped out with machinery.
- 5.2 The western most specimen of Tree 1 to be retained is encroached 5.6% by a concrete pedestrian ramp that slopes up 400mm from the footpath to the lobby (Refer Tree Impact Assessment Plan). If constructed above NGL it should not have a significant impact on the retention of the tree.
- 5.3 However, because a section of the row of trees is being removed it will leave the western end specimen to be retained exposed and showing one side dead that has previously been supressed by trees removed. It is therefore recommended that an additional specimen of Tree 1 be removed from the western end of the row and replaced with a new single specimen of *Cupressus sempervirens* Pencil Pine to cover up the section of the dead canopy to be retained.
- 5.4 Tree 2 the Moreton Bay Fig is the only High Arboricultural Value tree on site. It is of good condition and worthy of retention. It is protected and proposed to be retained. Its TPZ is encroached 6.2% by the new building that is approximately 12.8m from the centre of the tree. This is under 10% in accordance with AS-4970, and if any roots encountered when excavating the footings are cut cleanly with a sharp implement it should not have a detrimental impact on the retention of the tree. The building appears to be located just outside the canopy of Tree 1.
- 5.5 Between the building and Tree 1 there is an additional encroachment of 8% from proposed permeable paving. This should not have a detrimental impact on the Tree 1 if installed at NGL to avoid excavation and the potential for root damage. The permeability must include the sub-base so any rainfall can permeate to roots to assist in sustaining tree health.
- 5.6 The existing pedestrian path that passes on the western side of Tree 1 is proposed to be retained.

- 5.7 The existing asphalt driveway to the east of Tree 1 is proposed to be removed and to be replaced with permeable grassed open space. This should substantially improve the growing condition of Tree 1. Care must be taken not to damage any roots during demolition of the driveway and kerb.
- 5.8 All trees on site other than those mention above and Trees 18, 20 and 22 have a Low Arboricultural Value and are proposed to be removed. They are not worthy of retention.
- 5.9 Trees 18, 20 and 22 which are mature Paperbarks are of fair condition and Medium Arboricultural Value. They are proposed to be removed. There is no requirement for permits to remove these three trees because they are under 8m high height requirement for a permit in accordance with the local law.
- 5.10 Care must be taken when removing Trees 18, 20 and 22 to ensure roots and canopy of trees to be retained in the street are not damaged. Their stumps must be ground out and not ripped out by machinery.

NEIGHBOURING TREES

- 5.11 Trees 17, 21 and 24 are typical of other native trees in the Hall Street nature strip and are of Medium Arboricultural Value.
- 5.12 Trees 17 has its TPZs encroached 6.5% by paving and an additional 9.0% by a low retaining wall of a planter. The paving is to be installed at or above NGL to minimise excavation and the potential for root damage. The planter only requires a shallow footing and therefore is also not anticipated to detrimentally impacted or suffer any significant root damage.
- 5.13 Tree 24 has its TPZ encroached 9.2% for the entrance paving. Again, the paving is to be installed at or above NGL to minimise excavation and the potential for root damage and not expected to detrimentally impact on the successful retention of the tree.
- 5.14 Tree 21 a Bottlebrush does not have its TPZ encroached and therefore is not expected to be impacted.
- 5.15 Trees 19 and 23 are exotic juvenile Maples not consistent with the streetscape. I would be surprised if they survive to reach full maturity. Their TPZs are not encroached and therefore not expected to be impacted if isolated during demolition and construction.

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6 CONCLUSION

- 6.1 A suitably qualified and experience arborist minimum AQF Level 5 or equivalent in arboriculture visited the site on Thursday 06 April 2023 and a visual tree assessment (VTA – Claus Mattheck) of trees within and directly neighbouring was undertaken from the ground.
- 6.2 Tres proposed to be removed from the site includes the western end of the row of Trees 1, approximately twenty specimens, along with Trees 3, 5 16, 18, 20, and 22.
- 6.3 Trees 7, 14 and 15 would require a permit to remove in accordance with the Local law.
- 6.4 The eastern section of Trees 1, a row of Cypress on the front boundary, approximately 32 specimens and Tree 2 the Moreton Bay Fig are to be retained,
- 6.5 Trees in the Hall St nature strip are also proposed to be retained which includes Trees 17, 19, 21, 23 and 24.
- 6.6 Trees 1 and 2 to be retained are not anticipated to be detrimentally impacted if a Tree Protection Management Plan (TPMP) is prepared by a suitably qualified arborist and implemented prior to demolition commencing on the site. The TPMP must include but no be limited to the following.
 - Project Arborist monitors all demolition and excavations for footings and paving within it is the TPZ of Trees 1 and 2 to ensure its canopy and roots are not damage and where necessary cut cleanly with a sharp implement.
 - Once demolition is completed the area beneath the canopy of Trees 1 and 2 must be mulched and irrigated to encourage their on-going health.
 - Trees 1 and 2 must then be isolated with Tree Protection Fencing to the edge of the TPZ or canopy, which ever distance is larger, throughout construction until final stages of development e.g. landscaping.
- 6.7 All paving within TPZs of retained trees must be installed at or above NGL to minimise excavation and the potential for root damage.



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7 TREE IMPACT ASSESSMENT PLAN



LEGEND





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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.

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. The tree does not show any signs of senescence.
- **Over mature:** Tree is no longer actively putting out extension growth and is starting to show signs of senescence in health due to age. Canopy may be thinning and signs of die back in the canopy may be occurring.
- 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 AS-4970 '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 that is 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	Arboricultural Value					
	High	Medium	Low	Very Low		
20+ yrs.	High Retention					
10-20 yrs.	Madium Patant					
5-10 yrs.	Wedium Retem	lion				
0-5 yrs.	Low Ret					
0 yrs.						



- **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.

AS-4970:

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:

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.