



Tree Consultants & Contractors
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20 Feb 2025

DM Property
Attn David Dordevic

Re: 2 Collegium Avenue, Wheelers Hill

Introduction

This arboricultural assessment relates to a block of land at the north-east corner of Brandon Park Drive and Academy Avenue, forming part of 2 Collegium Avenue, Wheelers Hill. There are a number of trees within and close to the site. An arborist report was provided for these trees by Treelogic Pty Ltd dated the 28/Feb/2024 on behalf of Ryman Ltd., the vendor of the land. In September 2024 Galbraith and Associates was requested by DM Property to assess the trees, provide ratings in terms of worth for retention in any development of the site and to point out any major differences in opinion, should they exist, to the Treelogic report. Galbraith and Associates has also been requested by DM Property to discuss the likely impact of the proposal on the trees.

I inspected the trees on the 26/Sep/24. Each tree is numbered and located on the accompanying extract of the plan on page 2, taken from the Treelogic 2024 report. I have also perused the Development Strategy drawings by Rothelowman, dated 19/12/2024.

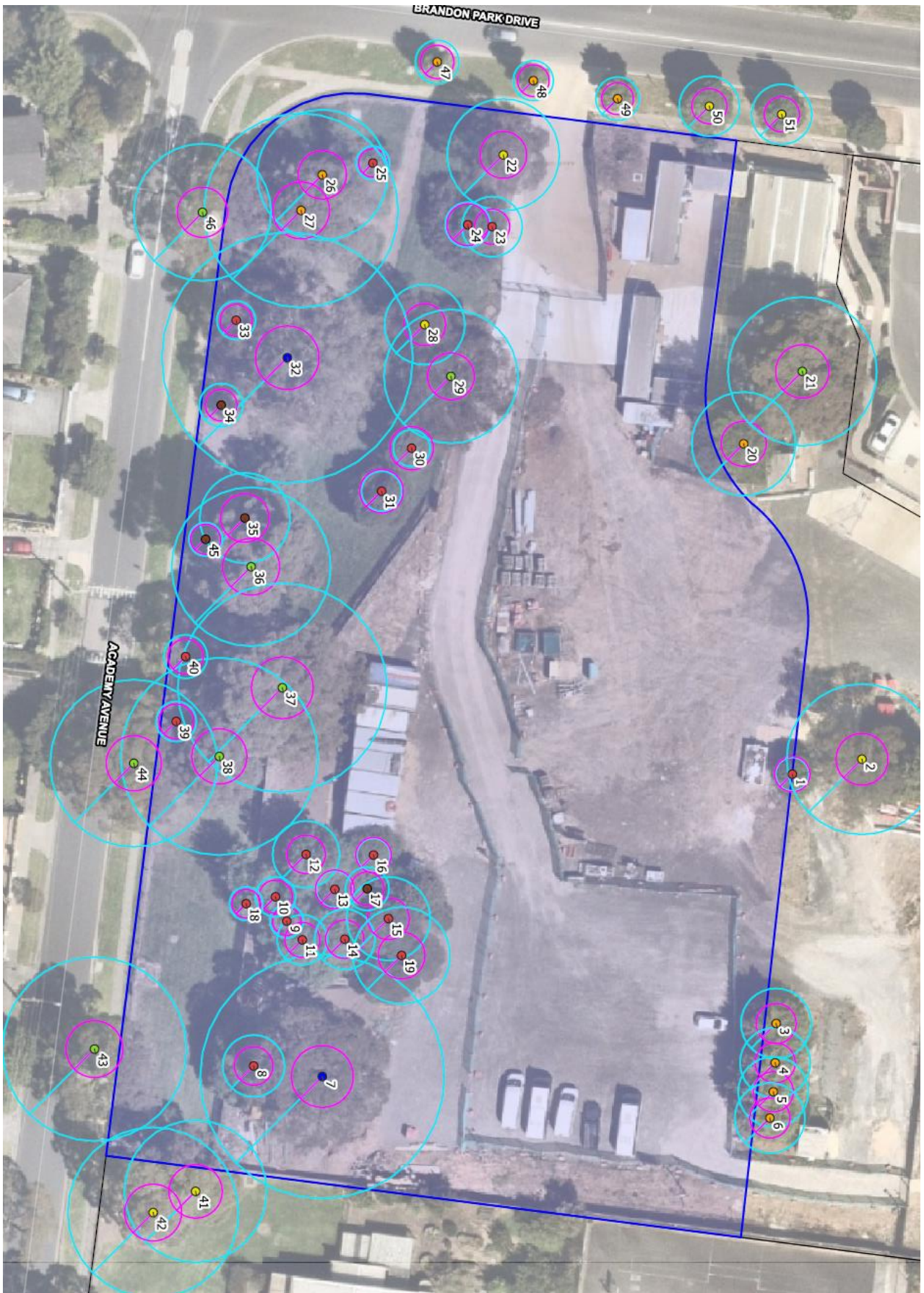
Planning Overlays

According to the vendor's Treelogic report, there are no planning overlays relating to vegetation on the site, however a Schedule 4 to the Development Planning Overlay (DPO4) refers to a 2013 report by Treelogic stating that large trees within 15m of the Academy Avenue frontage should be incorporated in the development design. These are trees 7, 32, 36, 37 and 38 with the current endorsed development plan (stamped by Monash City Council 31/July/2017) further informing retention of these trees as part of the site's re-development.

In addition, given that the site is over 0.4Ha in size, a permit will be required to remove native vegetation, as per clause 52.17 of the planning scheme. The only native self-sown trees within the site is Tree 33, a young Swamp Gum tree < 15 years of age which is growing next to the street footpath.

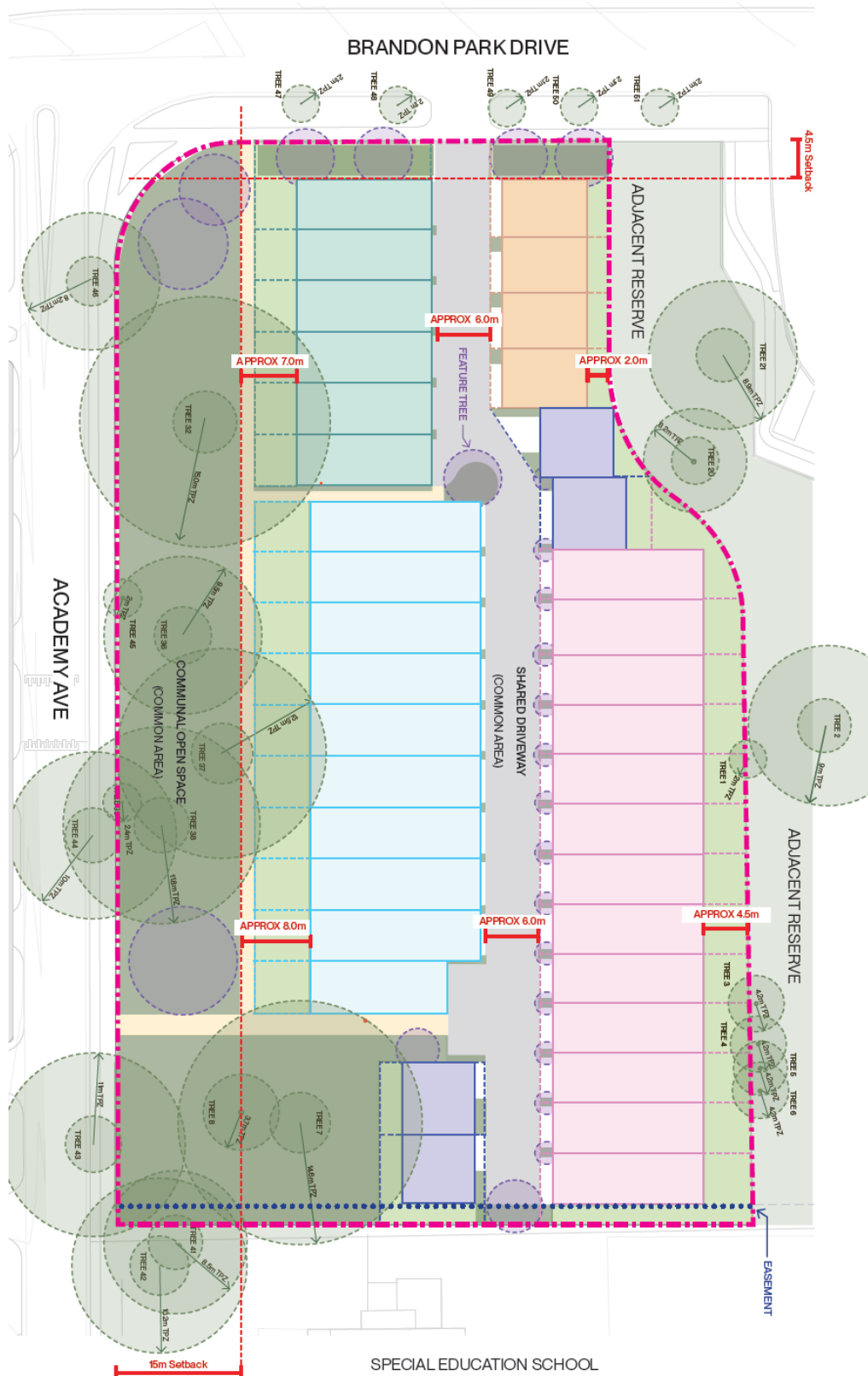
General

I sampled several trees to check their DBHs and found them to be very close and the remainder looked close to the values as quoted in the Treelogic report. Thus the TPZs as quoted in the Treelogic report can be confidently assumed to be correct or very close. I had little disagreement with the species description. There are differences in opinion in worth for retention and safe useful life expectancy estimates for a few trees, particularly several of the large trees. These relate to trees 7, 28, 36, 37 and 38. In my opinion if any large tree is to be retained according to the DP04, the most high value is Tree 32, a Manna Gum. The species occurs naturally locally however I would suggest this individual has been planted, as it is only of the order of 50-55 years of age like the other large trees near it. However for any of the large trees within the site, if they are to be retained, I would be strongly advising pruning back the crowns on their northerly sides.



THE TREES

Tree No.	Species Indigenous (I) Victorian (V) Australian (A) Exotic (E) Weed (W)	WOR	Comments
7	Eucalyptus nicholii A	4	Huge tree. The species tends not to last long in Melbourne, being drought prone and also susceptible to major branch shedding events and developments of canker rots in the trunk. Tree 27 is typical of the species at this stage of maturity.
Trees 8-17 and 19 are gone			
18	Fraxinus angustifolia EW	2	
22	Eucalyptus leucoxydon V	4	
23	Pittosporum undulatum VW	2	
24	Melaleuca nesophila A	2	
25	Callistemon citrinus A	2	
26	Euc. nicholii	3	
27	Euc. nicholii	2	Major branch shed history. Advanced canker rot in the trunk.
28	Euc. mannifera V	2	Canker rots present.
29	Euc. leucoxydon	6	
30	Ligustrum lucidum EW	2	
31	Ligustrum lucidum EW	2	
32	Euc. viminalis I Manna Gum	6	Fair-good condition but not a long SULE as it will soon be prone to shedding massive branches.
33	Euc. ovata I	3	Probably self-sown but too close to the street frontage and footpath.
34	Cupressus cashmeriana E	2	
35	Melaleuca armillaris V	2	
36	Corymbia maculata V	5	Healthy and long living but a branch shedder.
37	Eucalyptus botryoides V	4	Healthy and long living but a branch shedder.
38	Euc. nicholii A	3	Split prone pressure fork developing at 1.3m. In the short to medium term it could be kept moderately safe with cabling together of the co-dominant stems.
39	Euc. botryoides V	3	Too close to street. Probably self-sown.
40	Euc. botryoides V	3	Too close to street. Probably self-sown.
45	Pittosporum undulatum/Ligustrum lucidum		Two 6m high weed trees close together.



Proposed Scheme - Development Strategy by Rothelowman

Comments on the Development Strategy by Rothelowman

The current endorsed development plan (Council stamped 31 January 2017) informs the retention of Trees 7, 32, 36, 37 and 38 as part of the site's future re-development with other trees (those previously identified as 40, 112, 114, 115 and 166) as being removed from the site. According to the Development Strategy by Rothelowman it is apparent that Trees 7, 32, 36, 37, 38 and 39 can be satisfactorily retained, although some pruning back on the northerly sides of several of the trees will be required. Furthermore some of these trees are in poor condition such as tree 38, whilst 39 is way too close to the Academy Avenue footpath to be able to be retained for the medium to long term. As noted, the endorsed development plan already informs the removal of some trees, and inherent with the retention of noted trees 7, 32, 36, 37 and 38 will be the avoidance of addition of fill or excavation for level reductions or strip footings between the proposed buildings and retained trees. Any proposed footpaths where well within the TPZs will have to be constructed at grade. Similarly, any drains or services proposed well within the TPZs will have to be inserted in a manner which avoids significant root loss.

According to the plans, the trees proposed to be removed are numbers 9-19, 22-31 and 33-35. It should be noted that trees 9-17 and 19 have already been removed. With the exception of tree 29 which is a Yellow Gum in reasonable condition, all the other trees proposed for removal are either weeds or in poor condition.

Notes on terminology

In order to understand the column headings of the table of data, I have provided the following explanations:

SULE Safe useful life expectancy in years. Taken in the context that the area is to be developed for residential use, and that sensible distances are maintained between the buildings and the trees, this is the estimate of time that the tree will continue to provide useful amenity without imposing an onerous financial burden in order to maintain relative safety, and avoid excessive nuisance.

Worthiness of Retention (WOR):

The worth for retention of a tree is based on the assumption that the site is to be re-developed, and that there is the opportunity for new tree planting. It is based on a number of factors. These factors are:

1. structure, health, form and safe useful life expectancy,
2. size, prominence in the landscape,
3. species rarity,
4. whether indigenous,
5. whether an environmental weed.
6. importance for habitat of native wildlife
7. whether of historical or cultural interest

Any tree with a WOR rating of 3 or less should be seriously considered for removal before development begins because it is dead, nearly dead or dangerous, a weed, is causing or is likely to cause a severe nuisance in the near future, or just of very little significance and readily replaceable with new plantings. Trees rated 4-6 are of some significance. Some of these trees may respond to treatments such as formative pruning, removal of dead wood, weight reduction pruning etc. Trees rated 7 or higher are of high significance (the higher the ranking the more so), primarily because of their good health, structure, form, prominence in the landscape and SULE, although all they still may need substantial works done on them as already detailed, if they are to be retained.

Tree Protection Zone (TPZ) According to the Australian Standard AS 4970-2009 'Protection of Trees on Building Sites', the TPZ is the principal means of protecting trees on development sites. It is a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.' The radius of the TPZ is calculated by multiplying the DBH by 12. The radius is measured from the centre of the stem at ground level. An area of 10% of the TPZ is deemed acceptable to violate if 10% of the area of the TPZ is made up in other directions. *Thus if encroachment is from one side only, encroachment to as close as approximately 8.3 times the DBH (slightly over 2/3 the listed TPZ radius) is permissible according to the Standard.*

Where the tree has more than one trunk, the TPZ is deduced by taking the square root of the sum of the squares of each of the DBHs, and multiplying this figure by 12

The tree protection zones as calculated according to the AS 4970-2009 should be construed as a rough guide. They are only used in this statement because various local authorities now demand it in their assessments of development applications. Many factors such as the type of encroachment on the TPZ, species tolerance, age, tree height, presence of spiral grain, soil type, soil depth, tree lean, the existence of onsite structures or root directional impediments, level of wind exposure, irrigation and ongoing tree care and maintenance are each highly influential on the size and success of the TPZ estimation, therefore the figures derived from the Standard and provided in this report must be treated as rough guides only.

Structural Root Zone

According to the Aus Std. AS 4970:2009, the structural root zone is the area of the root plate required for a tree's stability. In order to calculate the indicative radius of such a zone from the trunk centre, according to the Aus Std., one uses the following formula: SRZ radius is $(D \times 50)^{0.42} \times 0.64$, where D is the trunk diameter in metres taken from just above the root buttress. The minimum indicative SRZ radius is 1.5m for any tree, irrespective of how small. A graph is provided in the Aust Std, with a curve depicted relating the SRZ to trunk diameter. Unfortunately, the calculated figures do not match those derived from the graph. The Aust Std. does not mention from where this formula is taken although acknowledges the publication 'Mattheck, C. & Breloer, H. (1994) *The Body Language of Trees* HMSO Publications' in the preface and bibliography. The figures derived from the graph for the indicative SRZs are far greater than those implied from the curve of 95% fit for the results from studies of upturned root plates of windblown and winched over German trees (see Mattheck, C. & Breloer, H. (1994). Furthermore the figures derived from the graph for the indicative SRZs are far greater than what one calculates them to be, using the formula provided by the Standard i.e. $(D \times 50)^{0.42} \times 0.64$. The calculated figures according to the Aust Std. are considerably greater for small and large trunks than those of Mattheck & Breloer.

In reality, the radii calculated whether by graph or using the formula, are much larger than necessary, except in cases such as where the soils are very shallow or where the structural root development is unidirectional or highly asymmetric for some reason, and the excavation is to be within the zone of the roots. **The structural stability generally depends far more on what proportion of the circumference of the tree is to be excavated than the actual distance of excavation from a tree, and this is often not taken into account quite when using the SRZ.**

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