



# **Arboricultural Assessment For Proposed Access Road**

Site Address:

Park Village Residential Development  
32 Middleton Street Highett

Report Commissioned by:

Sunkin Projects Pty Ltd

Prepared by:

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## 1 INTRODUCTION AND REPORT OBJECTIVES

- 1.1 This report is at the request of Gallagher Jeffs and supplied exclusively for Sunkin Projects Pty Ltd. The report contents should not be made available to any other parties, other than governing Council bodies and affected parties, unless by express permission of Treescape Consulting Pty Ltd.
- 1.2 This report is an analysis of 5 (five) trees that exist in close proximity to the proposed access road into the site at 32 Middleton Street Highett. The trees are located within the road reserve at the front of the site and within the rear of 30 and 34 Middleton Street Highett and two significant trees within the site at 37 Graham Road Highett.
- 1.3 The assessment of the 5 (five) trees includes their arboricultural rating, site significance and the tree protection zones. The outlined tree protection zones are areas that will require investigation should the proposed access road breach that distance.
- 1.4 The results of this assessment and a discussion of the relevant arboricultural characteristics are provided and the overall condition of the trees and their sustainable useful life expectancy are given.

## 2 SURVEY METHODOLOGY

- 2.1 The collection of data was undertaken by Peter Clark of Treescape Consulting Pty Ltd on Thursday 25 June 2020 and Monday 5 July 2021. The data was captured on a hand held computer and is recorded in this report on a detailed survey sheet, which is located in **6 Tree Data**.
- 2.2 The trees were given a number that corresponds to the numbering on an accompanying site map, which is reproduced in **7 & 8 Tree Location Plan with TPZ**. The site map is not to scale unless specified.
- 2.3 The trees were assessed and its species, arboricultural value, estimated height, diameter at breast height (DBH) and the estimated canopy width. For definition of terms used in the Arboricultural Assessment, see **9 Explanation of Terms**.
- 2.4 The survey undertaken of the subject trees was of a preliminary nature, with a visual inspection being made from the ground level only. The subject site trees were not climbed and no samples (soil, fungal etc.) were taken for analysis. Tree defects not apparent from this ground-based visual inspection are expressly excluded from the scope of this report. Additionally, this report is based upon the condition of the trees at the time of assessment only.

### 3 DISCUSSION

3.1 This report is an analysis of 5 (five) trees that exist in close proximity to the proposed access road into the site at 32 Middleton Street Highett. The trees are located within the road reserve at the front of the site and within the rear of 30 and 34 Middleton Street Highett; further two significant trees are located within the site at 37 Graham Road Highett.

3.2 Tree number 80, *Lophostemon confertus* (Queensland Brush Box) is located within the road reserve at the front of the site. The tree is in a fair overall condition and is a semi-mature specimen.

3.2.1 Tree number 80, *Lophostemon confertus* (Queensland Brush Box) is situated in the location of the proposed crossover to the site. The tree cannot be retained in conjunction with the construction of the proposed access road.



3.3 Tree number 81, *Acacia melanoxylon* (Blackwood) is located within the property at 30 Middleton Street Highett. The tree is located in close proximity to the northern boundary fence (southern side of access road) at the rear of the property.

3.3.1 Tree number 81, *Acacia melanoxylon* (Blackwood) has been poorly pruned; all foliage on the southern side of the tree has been removed (lopped) and the tree is hard up against the boundary fence. The tree will impact on the fence as the tree matures in the near future if retained. Given the poor structure of the tree, the past lopping of the tree and the likely impact with the boundary fence the tree is considered to have a life expectancy of less than 5 years and is considered to attain a low arboricultural rating.

3.4 Tree number 82, *Syzygium smithii* (Lilly Pilly) is located within the property at 34 Middleton Street Highett. The tree is located in close proximity to the eastern (rear) boundary fence and within 1.9 metres of the southern boundary fence (northern side of access road) at the rear of the property.

3.4.1 Tree number 82, *Syzygium smithii* (Lilly Pilly) is in a fair overall condition and considered to attain a medium arboricultural value and the tree should be retained and protected. The proposed access road is located approximately 2.6 metres from the southern boundary fence and the tree is located approximately 1.9 metres north of the boundary fence, resulting in the distance from the tree's centre to the closest edge of the footpath being approximately 4.5 metres from tree centre.

3.5 Trees numbered 1 and 2, *Eucalyptus melliodora* (Yellow Box) are located within the north-western corner of the tree protection reserve (southern end of 37 Graham Road Highett site).

3.5.1 Tree number 1, *Eucalyptus melliodora* (Yellow Box) is considered to be a significant tree in a fair overall condition. The proposed access road is located outside the tree's canopy. Given the significance of this tree if possible, the access road and footpath should be located outside the protection zone of 10.8 metres from tree centre.

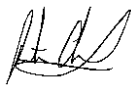
- 3.5.2 Tree number 2, *Eucalyptus melliodora* (Yellow Box) is considered to be a significant tree in a fair overall condition. The proposed access road is located outside the tree's canopy and tree protection zone of 12.9 metres from tree centre.

## 4 CONCLUSION

- 4.1 As mentioned within discussion the tree located within the road reserve tree number 80, *Lophostemon confertus* (Queensland Brush Box) cannot be retained in conjunction with the construction of the proposed access road.
- 4.2 As mentioned within discussion tree number 81, *Acacia melanoxylon* (Blackwood) is considered to have a life expectancy of less than 5 years and is considered to attain a low arboricultural rating. However given the tree is located within the property adjacent to the site the following recommendations on protection distances is given.
- 4.2.1 The proposed access road and footpath to the north of tree number 81, *Acacia melanoxylon* (Blackwood) will be 3.5 metres from tree centre. AS 4970-2009 Protection of Trees on Development Sites states that an encroachment of up to 10% of the tree protection area is considered minor and this equates to 2.9 metres from tree centre for this tree. Therefore the proposed access road and footpath will be 3.5 metres to the north of tree and considered a minor encroachment only.
- 4.2.2 The area between the proposed access road and footpath to the north of tree number 81, *Acacia melanoxylon* (Blackwood) will require protection and this should be discussed within a specific site Tree Management Plan.
- 4.3 As mentioned within discussion tree number 82, *Syzygium smithii* (Lilly Pilly) is in a fair overall condition and considered to attain a medium arboricultural value and the tree should be retained and protected.
- 4.3.1 The proposed access road and footpath to the south of tree number 82, *Syzygium smithii* (Lilly Pilly) will be 4.4 metres from tree centre. AS 4970-2009 Protection of Trees on Development Sites states that an encroachment of up to 10% of the tree protection area is considered minor and this equates to 3.3 metres from tree centre for this tree. Therefore the proposed access road and footpath will be 4.4 metres to the south of tree and considered a minor encroachment only.
- 4.3.2 The area between the proposed access road and footpath to the north of tree number 82, *Syzygium smithii* (Lilly Pilly) will require protection and this should be discussed within a specific site Tree Management Plan.
- 4.4 As mentioned within discussion trees numbered 1 and 2, *Eucalyptus melliodora* (Yellow Box) are considered to be significant trees.
- 4.4.1 For tree number 1, *Eucalyptus melliodora* (Yellow Box), if possible, the access road and footpath should be located outside the protection zone of 10.8 metres from tree centre.

- 4.4.2 For tree number 1, *Eucalyptus melliodora* (Yellow Box), should the proposed access road and footpath come within the 10.8 tree protection zone then the proposed access road and footpath should be located on or above grade with no excavation and be no closer than the PTZ 10% of 7.4 metres.
- 4.4.3 The proposed access road north of tree number 2, *Eucalyptus melliodora* (Yellow Box) is located outside the tree's canopy and tree protection zone of 12.9 metres from tree centre. No construction impact from the access road and footpath construction would be expected.

Yours sincerely,



Peter Clark

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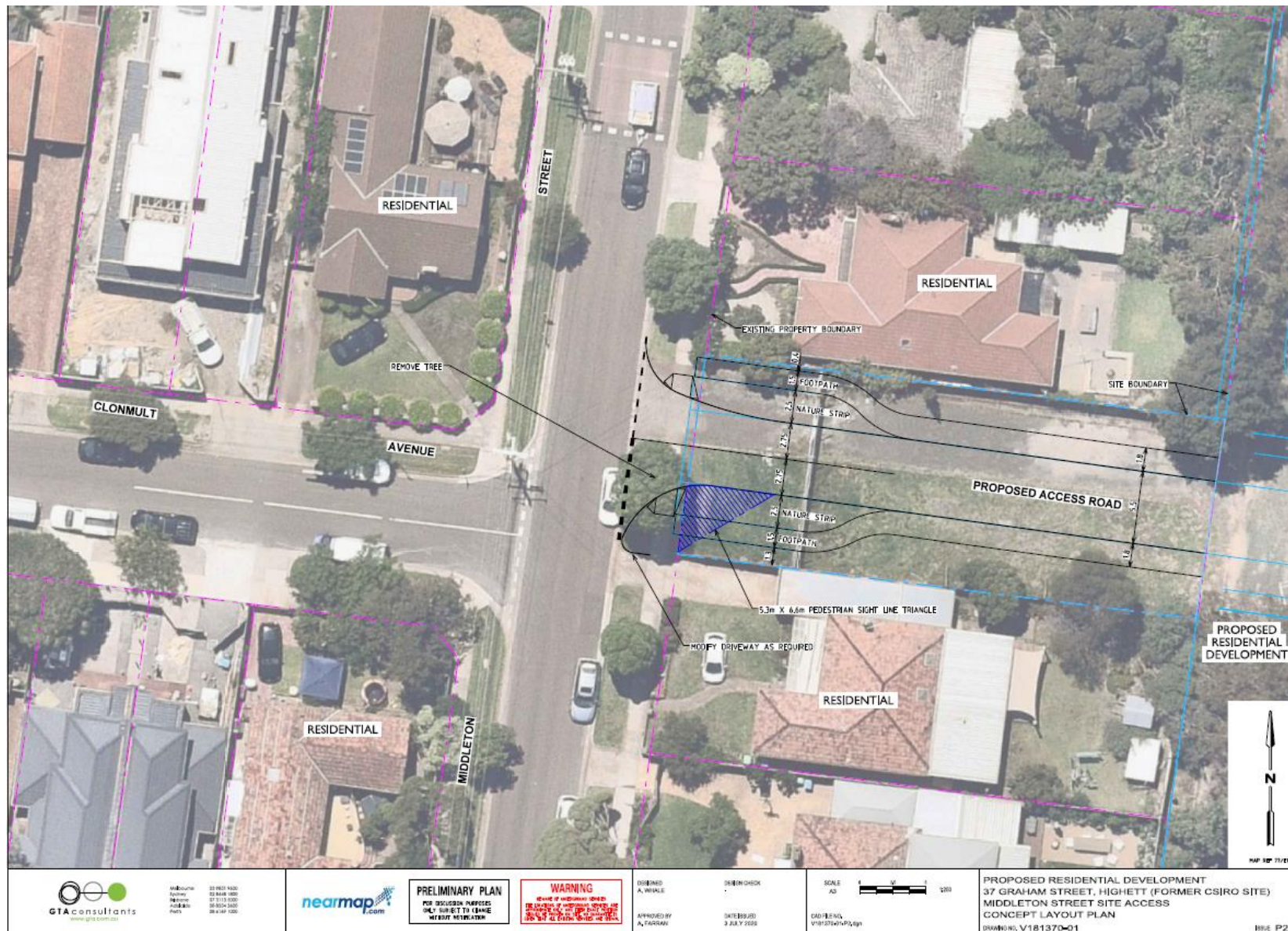
## 6 TREE DATA

Tree Id	Botanical Name	Common Name	Height [m]	Width	DBH [cm]	ULE (Years)	Health	Structure	Arbor Rating	Construction Impact	Retention Value	TPZ [m]	TPZ 10% (M)	SRZ [m]	Notes
1	<i>Eucalyptus melliodora</i>	Yellow Box	14	12	90	50 +	Fair	Fair	Very High	Low	Very High	10.8	7.4	N/A	A significant tree that is located southeast of the proposed access road. Works must keep clear of tree protection zone.
2	<i>Eucalyptus melliodora</i>	Yellow Box	20	19	108	50 +	Good	Fair	Very High	Low	Very High	12.96	8.9	N/A	A significant tree that is located southeast of the proposed access road. The access road and footpath are located outside the TPZ.
80	<i>Lophostemon confertus</i>	Queensland Brush Box	8	7	34	6 - 20	Good	Fair	Medium	Extreme	Low	4.08	2.8	2.1	The tree is located within the road reserve at the front of the proposed entry drive into the site. The tree cannot be retained in conjunction with the works.
81	<i>Acacia melanoxylon</i>	Blackwood	7	8	35 Estimate	1 - 5	Fair	Poor	Low	Moderate	Low	4.2	2.9	2.1	The tree is located hard up against the boundary fence within the property at number 30 Middleton Street Highett. The tree has been poorly pruned and is considered to have a low arboricultural value.
82	<i>Syzygium smithii</i>	Lilly Pilly	10	10	40 Estimate	21 - 50	Fair	Fair	Medium	Moderate	Medium	4.8	3.3	2.3	The tree is located within the rear of the property at number 34 Middleton Street Highett. The tree is located approximately 1.9 metres from the south boundary fence.

## 7 TREE LOCATION PLAN WITH TPZ



## 8 PROPOSED ACCESS ROAD



## 9 EXPLANATION OF TERMS

The following is a definition of terms used regularly in arboricultural assessments.

### DIAMETER AT BREAST HEIGHT (DBH)

DBH is measured at 1400mm above ground level. In cases where the tree has multiple stems, the measurement is taken at the narrowest point below the stems.

### HEALTH

Health pertains to the tree vigour, performance & ability to withstand pathogenic entry. Health is rated according to the following categories:

Category	Description
Good	<ul style="list-style-type: none"> <li>• Crown full, with good foliage density</li> <li>• Foliage entire with average colour, minimal or no pathogen damage</li> <li>• Good growth indicators such as extension growth and leaf size</li> <li>• Little or no canopy dieback</li> <li>• Good wound wood development</li> <li>• The tree exhibits above average health/vigour and no works are required</li> </ul>
Fair	<ul style="list-style-type: none"> <li>• Tree may have more than 30% dead wood, or may have minor canopy dieback</li> <li>• Foliage colour may be slightly lower than average and some discolouration may be present, some pathogenic damage may be observed</li> <li>• Typical growth indicators, eg. extension growth, leaf size, canopy density for species in location</li> <li>• The tree exhibits average health/vigour and remedial works may be employed to improve vigour</li> </ul>
Poor	<ul style="list-style-type: none"> <li>• Tree has more than 30% dead wood and canopy die back present</li> <li>• Leaves discoloured and/or distorted, often small, and/or excessive epicormic growth</li> <li>• Pathogens and or stress agents are present that could lead, or are leading to, the decline of tree</li> <li>• The tree exhibits low health/vigour and remedial works or removal may be required</li> </ul>

### STRUCTURE

Pertains to the physical structure of the tree, including the main scaffold branches and roots. Structure includes those attributes that may influence the probability of major trunk, root or limb failure. Structure is rated according to the following categories:

Category	Description
Good	<ul style="list-style-type: none"> <li>• The tree has a well-defined and balanced crown</li> <li>• Major limbs are well defined and spaced, branch unions appear to be strong with no defects evident in the trunk or the branches</li> <li>• The tree is unlikely to suffer trunk or branch failure under normal conditions</li> <li>• The tree is considered a good example of the species with a well-developed form</li> </ul>
Fair	<ul style="list-style-type: none"> <li>• The tree has some minor problems in the structure of the crown</li> <li>• Some branch unions or branches may exhibit minor structural defects</li> <li>• The tree may have suffered minor root damage or basal damage</li> <li>• These defects are not likely to result in catastrophic trunk or branch failure although some branch failure may occur under normal conditions</li> </ul>
Poor	<ul style="list-style-type: none"> <li>• The tree may have a poorly structured crown</li> <li>• Branch unions or branches may exhibit significant structural defects</li> <li>• The tree may have a substantial lean</li> <li>• The tree may have suffered major root damage or basal damage</li> <li>• These defects may predispose the tree to major trunk or branch failure</li> </ul>

### AGE CLASS

Age Class is provided as an indication of the relative stage of life that the tree is in based upon its current growing environment and expected longevity. Age Class is based upon the life stage of the subject tree being assessed. Age Class is rated according to the following categories:

Category	Description
Young/ Juvenile	<ul style="list-style-type: none"> <li>Small tree, sapling or new planting. Generally less than 10 years of age</li> </ul>
Semi Mature	<ul style="list-style-type: none"> <li>Tree is active growth and has not reached its expected size for growing environment</li> </ul>
Mature	<ul style="list-style-type: none"> <li>Tree is approaching the expected size for the growing environment.</li> </ul>
Senescent	<ul style="list-style-type: none"> <li>Tree is in the declining phase of its lifespan for the growing environment</li> </ul>

### USEFUL LIFE EXPECTANCY (ULE)

ULE quantifies the span of time the tree might reasonably be expected to provide useful amenity value, with an acceptable level of safety and at an acceptable cost. Depending on the situation, available financial resources and other factors, two identical trees may have different longevity ratings.

Category	Description
0	<ul style="list-style-type: none"> <li>The tree is dead or almost dead</li> <li>The tree should generally be removed</li> </ul>
<5	<ul style="list-style-type: none"> <li>The tree is unlikely to provide useful amenity for longer than 5 years</li> <li>The tree is in serious decline, poses an unacceptable hazard and/or requires disproportionate maintenance</li> <li>The tree should generally be removed unless other factors require its retention</li> </ul>
6 – 20	<ul style="list-style-type: none"> <li>The tree is unlikely to provide useful amenity for longer than 20 years</li> <li>The tree may be in moderate to serious decline, be a short lived species, present an elevated hazard and/or require high maintenance</li> <li>The tree could be retained or removed depending on the situation</li> </ul>
21 – 50	<ul style="list-style-type: none"> <li>The tree is likely to provide useful amenity for between 21–50 years</li> <li>The tree may be in fair to good condition, have a moderate life-span, present a low to moderate level of hazard and/or require moderate levels of maintenance</li> <li>The tree should generally be retained</li> </ul>
>50	<ul style="list-style-type: none"> <li>The tree is likely to provide useful amenity for greater than 50 years</li> <li>The tree may be in good to excellent condition, a long lived species, present a low level of hazard and/or require low levels of maintenance</li> <li>The tree should generally be retained unless other factors dictate its removal</li> </ul>

**ARBORICULTURAL RATING (RATING)**

The Arboricultural Rating that is given is based upon the overall condition of the tree in the landscape and its suitability for retention in the long term. Arboricultural Rating is rated according to the following categories:

Category	Description
None	<ul style="list-style-type: none"> <li>The tree is in very poor condition and has no value based on its Arboricultural Characteristics.</li> </ul>
Low	<ul style="list-style-type: none"> <li>The tree is unlikely to provide useful amenity for longer than 5 years</li> <li>The tree is in serious decline, poses an unacceptable hazard and/or requires disproportionate maintenance</li> <li>The tree should generally be removed unless other factors require its retention</li> </ul>
Medium	<ul style="list-style-type: none"> <li>The tree is unlikely to provide useful amenity for longer than 20 years</li> <li>The tree may be in moderate to serious decline, be a short lived species, present an elevated hazard and/or require high maintenance</li> <li>The tree could be retained or removed depending on the situation</li> </ul>
High	<ul style="list-style-type: none"> <li>The tree is likely to provide useful amenity greater than 20 years</li> <li>The tree may be in fair to good condition, have a moderate life-span, present a low to moderate level of hazard and/or require moderate levels of maintenance</li> <li>The tree should be retained</li> </ul>

**RETENTION VALUE (RATING)**

The Retention Value that is given is based upon the overall condition of the tree in the landscape and its suitability for retention in the long term. Arboricultural Rating is rated according to the following categories:

Category	Description
None	<ul style="list-style-type: none"> <li>The tree is in very poor condition and has no value based on its Arboricultural Characteristics.</li> </ul>
Low	<ul style="list-style-type: none"> <li>The tree is unlikely to provide useful amenity for longer than 5 years</li> <li>The tree is in serious decline, poses an unacceptable hazard and/or requires disproportionate maintenance</li> <li>The tree should generally be removed unless other factors require its retention</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>The tree is unlikely to provide useful amenity for longer than 20 years</li> <li>The tree may be in moderate to serious decline, be a short lived species, present an elevated hazard and/or require high maintenance</li> <li>The tree could be retained or removed depending on the situation</li> </ul>
High	<ul style="list-style-type: none"> <li>The tree is likely to provide useful amenity greater than 20 years</li> <li>The tree may be in fair to good condition, have a moderate life-span, present a low to moderate level of hazard and/or require moderate levels of maintenance</li> <li>The tree should be retained</li> </ul>

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