# Birds Tree Consultancy

Consulting Arborist AQF5 • Horticultural Consultancy • Project Management • Resistograph Testing



# ARBORICULTURAL DEVELOPMENT IMPACT ASSESSMENT REPORT

54 Terry Road, Rouse Hill NSW

REVISION A 10 February 2020

Prepared for Caverstock

## **Prepared by**

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## **Executive Summary**

This Arboricultural Development Impact Assessment Report has been commissioned by Caverstock to report on trees within the site of 54 Terry Road, Rouse Hill NSW. It has been commissioned to outline the health, condition and stability of these trees as well as their viability for retention. The scope of this report includes all trees within areas that may be impacted by the proposed development.

The subject Trees are preserved by Blacktown Council DCP Tree Preservation Measures.

Trees 36 and 41 are in poor and declining condition and are recommended for removal.

Tree 49 has decay and cavity within the trunk which places this tree at increased risk of failure. In consideration of the future development and the increased number of targets and therefore increased hazard posed, this tree is recommended for removal.

Tree 51 has evidence of significant decay at the base of the tree. WE recommend a full risk assessment of this tree including a Resistograph Test in order to define the extent of decay and the corresponding risk.

Tree 31 has poor form and significant epicormic growth within the live canopy due to a previous failure of the leader. This tree is recommended for removal.

The location of trees 50, 53, 54, 55, 56 and 57 are not included on the survey and have been located by means of aerial photographs. These trees are to be accurately located on site. The positioning of the proposed temporary bio-retention basin is to be located outside of the Tree Protection Zones (TPZ) of these trees.

Trees 50, 51, 52, 53, 54, 55, 56 and 57 are outside of the proposed development and will not be impacted by the proposed development.

The Tree Protection Zones (TPZ) of the balance of the subject trees are encroached by the proposed construction and required earthworks by a major encroachment as defined by AS4970-2009 Protection of Trees on Development Sites. These trees will not be viable to be retained and will be required to be removed due to the proposed development.

The scope of this report is to include all trees identified on survey. There a large number of small self-seeded saplings on the site which have not been included in detail in this report however these saplings will not be viable to be retained within this proposed development.

Recommendations for tree retention or removal are summarised as follows:

| Tree no. | Species            | Recommendations | Comments   |
|----------|--------------------|-----------------|--|
| 1.       | Eucalyptus fibrosa | Remove          | Not viable to be retained due to TPZ encroachment by proposed development. |

|            |  |              | Not viable to be retained due to TPZ |
|------------|--|--------------|--------------------------------------|
| 2.         | Eucalyptus fibrosa   | Remove       | encroachment by proposed             |
|            | Lucuryptus jibrosu   | Remove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 3.         | Eucalyptus moluccana   | Remove       | encroachment by proposed             |
| J.         | Eucuryptus moiuccunu   | Kemove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 4.         | Eucalyptus moluccana   | Remove       | encroachment by proposed             |
| 4.         | Eucuryptus moiuccunu   | Remove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 5.         | Fucalentus moluscana   | Remove       | encroachment by proposed             |
| ]          | 5. Eucalyptus moluccana Remove   | development. |                                      |
|            |  |              | Not viable to be retained due to TPZ |
| 6.         | Fuestus meluceans  | Remove       | encroachment by proposed             |
| 0.         | Eucalyptus moluccana   | Kelliove     | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 7.         | Eucalyptus moluccana   | Remove       | encroachment by proposed             |
| /.         | Eucalyptus moluccana   | Remove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 8.         | Fuestus meluceans  | Remove       | encroachment by proposed             |
| 0.         | Eucalyptus moluccana   | Remove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 9.         | Cuantinatus tanatian unis  | Remove       | encroachment by proposed             |
| <i>J</i> . | Eucalyptus tereticornis  | Remove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 10.        | Eucalyptus tereticornis  | Remove       | encroachment by proposed             |
| 10.        | Eucuryptus tereticornis  | Kemove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 11.        | Eucalyptus tereticornis  | Remove       | encroachment by proposed             |
|            | Lucuryptus tereticornis  | Remove       | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 12.        | Melaleuca linarifolia  | Remove       | encroachment by proposed             |
|            |  |              | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 13.        | Eucalyptus tereticornis  | Remove       | encroachment by proposed             |
|            | , , , , , , , , , , , , , , , , , , ,  |              | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 14.        | Eucalyptus tereticornis  | Remove       | encroachment by proposed             |
|            | , , , , , , , , , , , , , , , , , , ,  | _            | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 15.        | Melaleuca linarifolia  | Remove       | encroachment by proposed             |
|            | The state of the s |              | development.                         |
|            |  |              | Not viable to be retained due to TPZ |
| 16.        | Eucalyptus crebra  | Remove       | encroachment by proposed             |
|            |  |              | development.                         |
|            | <u> </u>   | <u> </u>     | 3300 p                               |

|     |                         |  | Not viable to be retained due to TPZ |
|-----|-------------------------|--|--------------------------------------|
| 17. | Eucalyptus fibrosa      | Remove   | encroachment by proposed             |
|     |                         |  | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 18. | Eucalyptus crebra       | Remove   | encroachment by proposed             |
|     |                         | Remove  Remove  Remove  Remove  Remove  Remove  Remove  Remove  Remove                 | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 19. | Eucalyptus fibrosa      | Remove   | encroachment by proposed             |
|     |                         | Remove  Remove  Remove  Remove  Remove   | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 20. | Eucalyptus tereticornis | Remove   | encroachment by proposed             |
|     |                         | Remove  Remove  Remove  Remove  Remove  Remove  Remove  Remove                         | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 21. | Eucalyptus crebra       | Remove   | encroachment by proposed             |
|     |                         | Remove  Remove   | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 22. | Eucalyptus crebra       | Remove   | encroachment by proposed             |
|     |                         | Remove  Remove  Remove  Remove  Remove  Remove  Remove  Remove  Remove                 | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 23. | Eucalyptus crebra       | Remove   | encroachment by proposed             |
|     |                         | Remove  Remove | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 24. | Eucalyptus fibrosa      | Remove   | encroachment by proposed             |
|     |                         |  | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 25. | Eucalyptus crebra       | Remove   | encroachment by proposed             |
|     |                         |  | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 26. | Eucalyptus moluccana    | Remove   | encroachment by proposed             |
|     |                         | Remove  Remove  Remove  Remove  Remove  Remove   | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 27. | Eucalyptus moluccana    | Remove   | encroachment by proposed             |
|     |                         |  | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 28. | Eucalyptus tereticornis | Remove   | encroachment by proposed             |
|     |                         |  | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 29. | Cupressus spp           | Remove   | encroachment by proposed             |
|     |                         |  | development.                         |
|     |                         |  | Not viable to be retained due to TPZ |
| 30. | Melaleuca linarifolia   | Remove   | encroachment by proposed             |
|     |                         | l  |                                      |
|     |                         |  | development. Failed leader.          |

|          |   |  | Not viable to be retained due to TPZ |
|----------|---|--|--------------------------------------|
| 32.      | Casuarina spp                           | Remove                                 | encroachment by proposed             |
| 32.      | Cusuuriiu spp                           | Kemove                                 | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 34.      | Melaleuca armillaris                    | Remove                                 | encroachment by proposed             |
| 54.      | Wielaleaca arrilliaris                  | Kemove                                 | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 35.      | <br>  Melaleuca armillaris              | Remove                                 | encroachment by proposed             |
| 33.      | Welaleaca arrimlaris                    | Kemove                                 | development.                         |
| 36.      | Cinnamomum camphora                     | Remove                                 | Poor and declining condition.        |
| 30.      | Cilinamomani campilora                  | Kemove                                 | Not viable to be retained due to TPZ |
| 37.      | Melaleuca linarifolia                   | Remove                                 | encroachment by proposed             |
| 37.      | Wielaleaca IIIIarijolia                 | Kemove                                 | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 38.      | Eucaluntus toroticornis                 | Remove                                 | encroachment by proposed             |
| 36.      | Eucalyptus tereticornis                 | Remove  Remove  Remove  Remove  Remove | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 39.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
| 33.      | Euculypius tereticornis                 | Kemove                                 | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 40.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
| 40.      | Lucuiyptus tereticornis                 | Kemove                                 | development.                         |
|          |   |  | Poor and declining condition. Entire |
| 41.      | Eucalyptus tereticornis                 | Remove                                 | live canopy epicormic.               |
|          |   |  | Not viable to be retained due to TPZ |
| 42.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
|          | Lucary peas teretreorms                 |  | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 43.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
|          |   |  | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 44.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
|          | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |  | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 45.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
|          | //                                      |  | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 46.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
|          |   | Kemove                                 | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 47.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
|          |   |  | development.                         |
|          |   |  | Not viable to be retained due to TPZ |
| 48.      | Eucalyptus tereticornis                 | Remove                                 | encroachment by proposed             |
|          |   |  | development.                         |
| <u> </u> | l                                       |  | 1                                    |

| 49. | Eucalyptus tereticornis | Remove | Extensive decay at base of trunk.   |
|-----|-------------------------|--------|-------------------------------------|
| 50. | Populus alba            | Retain |                                     |
| 51. | Eucalyptus tereticornis | Retain |                                     |
| 52. | Eucalyptus tereticornis | Retain |                                     |
|     |                         |        | Location of proposed bio-retention  |
| 53. | Eucalyptus tereticornis | Retain | basin to be surveyed outside of TPZ |
|     |                         |        | of this tree.                       |
|     |                         |        | Location of proposed bio-retention  |
| 54. | Eucalyptus tereticornis | Retain | basin to be surveyed outside of TPZ |
|     |                         |        | of this tree.                       |
|     |                         |        | Location of proposed bio-retention  |
| 55. | Eucalyptus tereticornis | Retain | basin to be surveyed outside of TPZ |
|     |                         |        | of this tree.                       |
|     |                         |        | Location of proposed bio-retention  |
| 56. | Eucalyptus tereticornis | Retain | basin to be surveyed outside of TPZ |
|     |                         |        | of this tree.                       |
|     |                         |        | Location of proposed bio-retention  |
| 57. | Eucalyptus tereticornis | Retain | basin to be surveyed outside of TPZ |
|     |                         |        | of this tree.                       |

## Contents

| Executive Summary                    | 2  |
|--------------------------------------|----|
| Contents                             |    |
| 1.0 Scope of Works                   |    |
| 2.0 Site Analysis                    |    |
| 2.1 Site                             |    |
| 2.2 Topography                       | 8  |
| <ul><li>2.3 Identification</li></ul> |    |
| 3.0 Existing Trees                   |    |
| 4.0 Impact of Development            |    |
| 4.1 Tree Protection Zone             | 15 |
| 4.2 Development Impact               | 16 |
| 5.0 Recommendations                  | 24 |
| 6.0 References                       | 28 |
| 11.0 Disclaimer                      | 28 |
| Appendix A - Tree Inspection Data    |    |
| Appendix B Tree Location Plans       |    |
| Tree Protection Plans                |    |
| TIEE FIOLECTION FIAMS                |    |

## 1.0 Scope of Works

This Arboricultural Development Impact Assessment Report has been commissioned by Caverstock to report on trees within the site of 54 Terry Road, Rouse Hill NSW. It has been commissioned to outline the health, condition and stability of these trees as well as their viability for retention. The scope of this report includes all trees within areas that may be impacted by the proposed development. The scope of this report is to include all trees identified on survey. There a large number of small self-seeded saplings on the site which have not been included in detail in this report.

On the 22nd of June 2018, Glenn Bird of Birds Tree Consultancy attended site and inspected the subject trees from the ground. Trees 51, 52, 53, 54, 55, 56 and 57 were inspected 04 February 2020. There was no aerial inspection carried out. A Visual Tree Assessment was undertaken in accordance with Visual Tree Assessment (VTA) guidelines (Mattheck and Breloer, 1994). Tree heights were measured using a Nikon Forestry 550 Heightmeter.

## 2.0 Site Analysis

#### 2.1 Site

The subject site is 54 Terry Road, Rouse Hill NSW. The subject trees are located within or adjacent to the boundaries of this site.

#### 2.2 Topography

The site is relatively flat. The area in the vicinity of all trees is flat. Refer to survey drawings for greater detail of levels.

#### 2.3 Identification

Trees are as identified in the attached inspection forms in Appendix A and shown in Tree location Plan A01 in Appendix B.

#### 2.4 Soils

Soil material and horizons were not tested for this report.

## 3.0 Existing Trees

The following trees were inspected from the ground and the following items identified. Please refer also to the attached inspection data in Appendix A.

#### 3.1 Tree 1. Eucalyptus fibrosa

This mature tree is approximately 24m tall with a canopy spread of 15m. It has twin co-dominant trunks from the base with an aggregate diameter at breast height (DBH) of 1155mm. This tree is in good health and condition with minimal deadwood and epicormic growth. There is evidence of previous failure at bark inclusion. We recommend the removal of the northern co-dominant trunk.

#### 3.2 Tree 2. Eucalyptus fibrosa

This mature tree is approximately 28m tall with a canopy spread of 15m. It has a single trunk with a DBH of 770mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.3 Tree 3. Eucalyptus moluccana

This mature tree is approximately 22.5m tall with a canopy spread of 9m. It has a single trunk with a DBH of 440mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

## 3.4 Tree 4. Eucalyptus moluccana

This mature tree is approximately 20m tall with a canopy spread of 9m. It has a single trunk with a DBH of 425mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

## 3.5 Tree 5. Eucalyptus moluccana

This mature tree is approximately 16.5m tall with a canopy spread of 11m. It has a single trunk with a DBH of 420mm. This tree is in good health and condition with minimal deadwood and epicormic growth. There is a wound at base which appears to be well compartmentalised.

#### 3.6 Tree 6. Eucalyptus moluccana

This mature tree is approximately 24m tall with a canopy spread of 12m. It has a single trunk with a DBH of 585mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.7 Tree 7. Eucalyptus moluccana

This mature tree is approximately 21.5m tall with a canopy spread of 12m. It has a single trunk with a DBH of 510mm. This tree is in poor health and condition with a sparse canopy, significant deadwood and epicormic growth.

#### 3.8 Tree 8. Eucalyptus moluccana

This mature tree is approximately 19m tall with a canopy spread of 8m. It has a single trunk with a DBH of 510mm. This tree is in poor health and condition with a thinning canopy, moderate deadwood, significant epicormic growth and apical dieback.

#### 3.9 Tree 9. Eucalyptus tereticornis

This mature tree is approximately 19m tall with a canopy spread of 9m. It has a single trunk with a DBH of 505mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.10 Tree 10. Eucalyptus tereticornis

This mature tree is approximately 16m tall with a canopy spread of 11m. It has a single trunk with a DBH of 355mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.11 Tree 11. Eucalyptus tereticornis

This mature tree is approximately 10m tall with a canopy spread of 4m. It has a single trunk with a DBH of 185mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.12 Tree 12. Melaleuca linarifolia

This mature tree is approximately 11m tall with a canopy spread of 8m. It has a single trunk with a DBH of 505mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.13 Tree 13. Eucalyptus tereticornis

This mature tree is approximately 11m tall with a canopy spread of 8m. It has twin co-dominant trunks from the base with an aggregate DBH of 390mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.14 Tree 14. Eucalyptus tereticornis

This mature tree is approximately 15m tall with a canopy spread of 8m. It has a single trunk with a DBH of 340mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.15 Tree 15. Melaleuca linarifolia

This mature tree is approximately 11.5m tall with a canopy spread of 9m. It has multiple (3) co-dominant trunks from the base with an aggregate DBH of 625mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.16 Tree 16. Eucalyptus crebra

This mature tree is approximately 11m tall with a canopy spread of 5m. It has a single trunk with a DBH of 205mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.17 Tree 17. Eucalyptus fibrosa

This mature tree is approximately 9.5m tall with a canopy spread of 5m. It has twin co-dominant trunks from the base with an aggregate DBH of 215mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.18 Tree 18. Eucalyptus crebra

This mature tree is approximately 10m tall with a canopy spread of 4m. It has a single trunk with a DBH of 160mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.19 Tree 19. Eucalyptus fibrosa

This mature tree is approximately 13m tall with a canopy spread of 5m. It has a single trunk with a DBH of 230mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.20 Tree 20. Eucalyptus tereticornis

This mature tree is approximately 18m tall with a canopy spread of 11m. It has multiple co-dominant trunks from the base with an aggregate DBH of 600mm. This tree is in fair health and condition with a thinning canopy, moderate deadwood, minimal epicormic growth and significant apical dieback.

#### 3.21 Tree 21. Eucalyptus crebra

This mature tree is approximately 10m tall with a canopy spread of 4m. It has a single trunk with a DBH of 170mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.22 Tree 22. Eucalyptus crebra

This mature tree is approximately 9.5m tall with a canopy spread of 4m. It has a single trunk with a DBH of 195mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.23 Tree 23. Eucalyptus crebra

This mature tree is approximately 25m tall with a canopy spread of 16m. It has twin co-dominant trunks from the base with an aggregate DBH of 710mm. This tree is in good health and condition with minimal deadwood, epicormic growth and some apical dieback.

## 3.24 Tree 24. Eucalyptus fibrosa

This mature tree is approximately 23m tall with a canopy spread of 12m. It has a single trunk with a DBH of 535mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.25 Tree 25. Eucalyptus crebra

This mature tree is approximately 23.5m tall with a canopy spread of 12m. It has a single trunk with a DBH of 540mm. This tree is in fair health and condition with a thinning canopy, minimal deadwood and moderate epicormic growth.

#### 3.26 Tree 26. Eucalyptus moluccana

This mature tree is approximately 15.5m tall with a canopy spread of 13m. It has a single trunk with a DBH of 495mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

## 3.27 Tree 27. Eucalyptus moluccana

This mature tree is approximately 35m tall with a canopy spread of 18m. It has a single trunk with a DBH of 840mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.28 Tree 28. Eucalyptus tereticornis

This mature tree is approximately 14.5m tall with a canopy spread of 9m. It has a single trunk with a DBH of 320mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.29 Tree 29. Cupressus spp

This mature tree is approximately 11.5m tall with a canopy spread of 4m. It has a single trunk with a DBH of 405mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.30 Tree 30. Melaleuca linarifolia

This mature tree is approximately 10.5m tall with a canopy spread of 8m. It has twin co-dominant trunks from the base with an aggregate DBH of 515mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

## 3.31 Tree 31. Casuarina spp

This mature tree is approximately 8.5m tall with a canopy spread of 6m. It has a single trunk with a DBH of 140mm. This tree is in good health and condition with minimal deadwood and epicormic growth. There is evidence of a failed leader. This tree is recommended for removal.

#### 3.32 Tree 32. Casuarina spp

This mature tree is approximately 13m tall with a canopy spread of 6m. It has a single trunk with a DBH of 315mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.33 Tree 34. Melaleuca armillaris

This mature tree is approximately 10m tall with a canopy spread of 8m. It has multiple co-dominant trunks from the base with an aggregate DBH of 410mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.34 Tree 35. Melaleuca armillaris

This mature tree is approximately 8.5m tall with a canopy spread of 5m. It has a single trunk with a DBH of 285mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.35 Tree 36. Cinnamomum camphora

This mature tree is approximately 15m tall with a canopy spread of 12m. It has a single trunk with a DBH of 530mm. This tree is in poor health and declining condition with a sparse canopy, significant deadwood and epicormic growth. This tree is recommended for removal.

#### 3.36 Tree 37. Melaleuca linarifolia

This mature tree is approximately 8.5m tall with a canopy spread of 4m. It has a single trunk with a DBH of 290mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.37 Tree 38. Eucalyptus tereticornis

This mature tree is approximately 15.5m tall with a canopy spread of 12m. It has a single trunk with a DBH of 300mm. This tree is in fair health and condition with minimal deadwood and epicormic growth.

#### 3.38 Tree 39. Eucalyptus tereticornis

This mature tree is approximately 16.5m tall with a canopy spread of 8m. It has a single trunk with a DBH of 320mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

## 3.39 Tree 40. Eucalyptus tereticornis

This mature tree is approximately 29.5m tall with a canopy spread of 14m. It has multiple (3) co-dominant trunks from the base with an aggregate DBH of 1090mm. This tree is in fair health and condition with a thinning canopy, minimal deadwood, epicormic growth and moderate apical dieback.

#### 3.40 Tree 41. Eucalyptus tereticornis

This mature tree is approximately 14m tall with a canopy spread of 7m. It has a single trunk with a DBH of 385mm. This tree is in poor health and declining condition with a sparse epicormic canopy and significant deadwood. This tree is recommended for removal.

#### 3.41 Tree 42. Eucalyptus tereticornis

This mature tree is approximately 22.5m tall with a canopy spread of 12m. It has a single trunk with a DBH of 430mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.42 Tree 43. Eucalyptus tereticornis

This mature tree is approximately 30m tall with a canopy spread of 14m. It has a single trunk with a DBH of 600mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.43 Tree 44. Eucalyptus tereticornis

This mature tree is approximately 27m tall with a canopy spread of 16m. It has a single trunk with a DBH of 695mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.44 Tree 45. Eucalyptus tereticornis

This mature tree is approximately 10m tall with a canopy spread of 5m. It has multiple co-dominant trunks from the base with an aggregate DBH of 260mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.45 Tree 46. Eucalyptus tereticornis

This mature tree is approximately 19m tall with a canopy spread of 12m. It has twin co-dominant trunks from the base with an aggregate DBH of 520mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.46 Tree 47. Eucalyptus tereticornis

This mature tree is approximately 15.5m tall with a canopy spread of 9m. It has a single trunk with a DBH of 440mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

### 3.47 Tree 48. Eucalyptus tereticornis

This mature tree is approximately 21m tall with a canopy spread of 14m. It has twin co-dominant trunks from the base with an aggregate DBH of 675mm. This tree is in good health and condition with minimal deadwood and epicormic growth. There is evidence of a wound at base which appears to be well compartmentalised.

#### 3.48 Tree 49. Eucalyptus tereticornis

This mature tree is approximately 24m tall with a canopy spread of 12m. It has a single trunk with a DBH of 685mm. This tree is in good health and condition with minimal deadwood and epicormic growth. There is evidence of extensive decay at base of trunk. This tree is recommended for removal.

## 3.49 Tree 50. Populus alba Grove

These mature trees are approximately 10.5m tall with an average DBH of 200mm. These trees are is in good health and condition with minimal deadwood and epicormic growth.

## 3.50 Tree 51. Eucalyptus tereticornis

This mature tree is approximately 19m tall with a canopy spread of 14m. It has a single trunk with a DBH of 890mm. This tree is in good health and condition with minimal deadwood and epicormic growth. There is evidence of extensive decay at base of trunk. Recommend a full risk assessment and Resistograph testing.

#### 3.51 Tree 52. Eucalyptus tereticornis

This mature tree is approximately 21m tall with a canopy spread of 11m. It has a single trunk with a DBH of 420mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.52 Tree 53. Eucalyptus tereticornis

This mature tree is approximately 22m tall with a canopy spread of 12m. It has a single trunk with a DBH of 750mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.53 Tree 54. Eucalyptus tereticornis

This mature tree is approximately 20m tall with a canopy spread of 12m. It has a single trunk with a DBH of 480mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

### 3.54 Tree 55. Eucalyptus tereticornis

This mature tree is approximately 21m tall with a canopy spread of 12m. It has a single trunk with a DBH of 680mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.55 Tree 56. Eucalyptus tereticornis

This mature tree is approximately 22m tall with a canopy spread of 12m. It has a single trunk with a DBH of 470mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

#### 3.56 Tree 57. Angophora floribunda Grove

Tree 57 is a grove of approximately 30 individual trees with a height of approximately 10m and an approximate individual canopy spread of 3m. The representative individual DBH is 120mm. These trees are in good health and condition with minimal deadwood and epicormic growth.

## 4.0 Impact of Development

#### 4.1 Tree Protection Zone

Tree Protection Zones (TPZs) have been defined for the subject trees in order to define the encroachment of the proposed development in accordance with AS4970-2009. The TPZs required have been taken as a circular area with a radius 12 x the diameter at breast height of the tree. This requirement is in line with Australian Standard AS 4970-2009 Protection of Trees on Development Sites. This standard defines a maximum of 10% encroachment to be minimal encroachment. Any encroachment over 10% requires the site arborist to give consideration as to the viability of the tree due to the proposed development.

| Tree no. | Species                 | TPZ Radius (m) | Encroachment (%) |
|----------|-------------------------|----------------|------------------|
| 1.       | Eucalyptus fibrosa      | 13.86          | 100              |
| 2.       | Eucalyptus fibrosa      | 9.24           | 100              |
| 3.       | Eucalyptus moluccana    | 5.28           | 100              |
| 4.       | Eucalyptus moluccana    | 5.1            | 100              |
| 5.       | Eucalyptus moluccana    | 5.04           | 100              |
| 6.       | Eucalyptus moluccana    | 7.02           | 100              |
| 7.       | Eucalyptus moluccana    | 6.12           | 100              |
| 8.       | Eucalyptus moluccana    | 6.12           | 100              |
| 9.       | Eucalyptus tereticornis | 6.06           | 100              |
| 10.      | Eucalyptus tereticornis | 4.26           | 100              |
| 11.      | Eucalyptus tereticornis | 2.22           | 100              |
| 12.      | Melaleuca linarifolia   | 6.06           | 100              |
| 13.      | Eucalyptus tereticornis | 4.68           | 100              |
| 14.      | Eucalyptus tereticornis | 4.08           | 100              |
| 15.      | Melaleuca linarifolia   | 7.5            | 100              |
| 16.      | Eucalyptus crebra       | 2.46           | 100              |
| 17.      | Eucalyptus fibrosa      | 2.58           | 100              |
| 18.      | Eucalyptus crebra       | 1.92           | 100              |
| 19.      | Eucalyptus fibrosa      | 2.76           | 100              |
| 20.      | Eucalyptus tereticornis | 7.2            | 100              |
| 21.      | Eucalyptus crebra       | 2.04           | 100              |

| 22. | Eucalyptus crebra       | 2.34  | 100 |
|-----|-------------------------|-------|-----|
| 23. | Eucalyptus crebra       | 8.52  | 100 |
| 24. | Eucalyptus fibrosa      | 6.42  | 100 |
| 25. | Eucalyptus crebra       | 6.48  | 100 |
| 26. | Eucalyptus moluccana    | 5.94  | 100 |
| 27. | Eucalyptus moluccana    | 10.08 | 100 |
| 28. | Eucalyptus tereticornis | 3.84  | 100 |
| 29. | Cupressus spp           | 4.86  | 100 |
| 30. | Melaleuca linarifolia   | 6.18  | 100 |
| 31. | Casuarina spp           | N/A   | N/A |
| 32. | Casuarina spp           | 3.78  | 100 |
| 34. | Melaleuca armillaris    | 4.92  | 100 |
| 35. | Melaleuca armillaris    | 3.42  | 100 |
| 36. | Cinnamomum camphora     | N/A   | N/A |
| 37. | Melaleuca linarifolia   | 3.48  | 100 |
| 38. | Eucalyptus tereticornis | 3.6   | 100 |
| 39. | Eucalyptus tereticornis | 3.84  | 100 |
| 40. | Eucalyptus tereticornis | 13.08 | 100 |
| 41. | Eucalyptus tereticornis | N/A   | N/A |
| 42. | Eucalyptus tereticornis | 5.16  | 100 |
| 43. | Eucalyptus tereticornis | 7.2   | 100 |
| 44. | Eucalyptus tereticornis | 8.34  | 100 |
| 45. | Eucalyptus tereticornis | 3.12  | 100 |
| 46. | Eucalyptus tereticornis | 6.24  | 100 |
| 47. | Eucalyptus tereticornis | 5.28  | 100 |
| 48. | Eucalyptus tereticornis | 8.1   | 100 |
| 49. | Eucalyptus tereticornis | 8.22  | 100 |
| 50. | Populus alba grove      | 2.46  | 100 |
| 51. | Eucalyptus tereticornis | 10.68 | 0   |
| 52. | Eucalyptus tereticornis | 5.04  | 0   |
| 53. | Eucalyptus tereticornis | 9     | 0   |
| 54. | Eucalyptus tereticornis | 5.76  | 0   |
| 55. | Eucalyptus tereticornis | 8.16  | 0   |
| 56. | Eucalyptus tereticornis | 5.64  | 0   |
| 57. | Angophora costata       | 2     | 0   |
|     |                         |       |     |

## 4.2 Development Impact

## 4.2.1. Tree 1 Eucalyptus fibrosa

## 4.2.2. Tree 2 Eucalyptus fibrosa

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.3. Tree 3 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.4. Tree 4 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.5. Tree 5 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

## 4.2.6. Tree 6 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.7. Tree 7 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.8. Tree 8 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.9. Tree 9 Eucalyptus tereticornis

#### 4.2.10. Tree 10 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.11. Tree 11 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.12. Tree 12 Melaleuca linarifolia

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.13. Tree 13 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.14. Tree 14 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.15. Tree 15 Melaleuca linarifolia

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.16. Tree 16 Eucalyptus crebra

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

## 4.2.17. Tree 17 Eucalyptus fibrosa

## 4.2.18. Tree 18 Eucalyptus crebra

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.19. Tree 19 Eucalyptus fibrosa

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.20. Tree 20 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.21. Tree 21 Eucalyptus crebra

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

## 4.2.22. Tree 22 Eucalyptus crebra

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.23. Tree 23 Eucalyptus crebra

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.24. Tree 24 Eucalyptus fibrosa

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

## 4.2.25. Tree 25 Eucalyptus crebra

## 4.2.26. Tree 26 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.27. Tree 27 Eucalyptus moluccana

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.28. Tree 28 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

## 4.2.29. Tree 29 Cupressus spp

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.30. Tree 30 Melaleuca linarifolia

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.31. Tree 31 Casuarina spp

This tree is recommended for removal.

#### 4.2.32. Tree 32 Casuarina spp

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.33. Tree 34 Melaleuca armillaris

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

## 4.2.34. Tree 35 Melaleuca armillaris

#### 4.2.35. Tree 36 Cinnamomum camphora

This tree is recommended for removal.

#### 4.2.36. Tree 37 Melaleuca linarifolia

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.37. Tree 38 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.38. Tree 39 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.39. Tree 40 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.40. Tree 41 Eucalyptus tereticornis

This tree is recommended for removal.

#### 4.2.41. Tree 42 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.42. Tree 43 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with AS 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.43. Tree 44 Eucalyptus tereticornis

## 4.2.44. Tree 45 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.45. Tree 46 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.46. Tree 47 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.47. Tree 48 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.48. Tree 49 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of this tree in accordance with *AS* 4970-2009 Protection of Trees on Development Sites will be totally encroached by the proposed development. This tree will not be viable to be retained under the proposed development.

#### 4.2.49. Tree 50 Populus alba Grove

The Tree Protection Zone (TPZ) of these trees in accordance with AS 4970-2009 Protection of Trees on Development Sites will not be encroached by the proposed development. These trees will be viable to be retained under the proposed development.

#### 4.2.50. Tree 51 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of these trees in accordance with AS 4970-2009 Protection of Trees on Development Sites will not be encroached by the proposed development. This tree will be viable to be retained under the proposed development.

## 4.2.51. Tree 52 Eucalyptus tereticornis

#### 4.2.52. Tree 53 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of these trees in accordance with AS 4970-2009 Protection of Trees on Development Sites will not be encroached by the proposed development. This tree will be viable to be retained under the proposed development.

### 4.2.53. Tree 54 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of these trees in accordance with AS 4970-2009 Protection of Trees on Development Sites will not be encroached by the proposed development. This tree will be viable to be retained under the proposed development.

#### 4.2.54. Tree 55 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of these trees in accordance with AS 4970-2009 Protection of Trees on Development Sites will not be encroached by the proposed development. This tree will be viable to be retained under the proposed development.

#### 4.2.55. Tree 56 Eucalyptus tereticornis

The Tree Protection Zone (TPZ) of these trees in accordance with AS 4970-2009 Protection of Trees on Development Sites will not be encroached by the proposed development. This tree will be viable to be retained under the proposed development.

#### 4.2.56. Tree 57 Angophora floribunda

## 5.0 Recommendations

The subject Trees are preserved by Blacktown Council DCP Tree Preservation Measures.

Trees 36 and 41 are in poor and declining condition and are recommended for removal.

Tree 49 has decay and cavity within the trunk which places this tree at increased risk of failure. In consideration of the future development and the increased number of targets and therefore increased hazard posed, this tree is recommended for removal.

Tree 51 has evidence of significant decay at the base of the tree. WE recommend a full risk assessment of this tree including a Resistograph Test in order to define the extent of decay and the corresponding risk.

Tree 31 has poor form and significant epicormic growth within the live canopy due to a previous failure of the leader. This tree is recommended for removal.

The location of trees 50, 53, 54, 55, 56 and 57 are not included on the survey and have been located by means of aerial photographs. These trees are to be accurately located on site. The positioning of the proposed temporary bio-retention basin is to be located outside of the Tree Protection Zones (TPZ) of these trees.

Trees 50, 51, 52, 53, 54, 55, 56 and 57 are outside of the proposed development and will not be impacted by the proposed development.

The Tree Protection Zones (TPZ) of the balance of the subject trees are encroached by the proposed construction and required earthworks by a major encroachment as defined by AS4970-2009 Protection of Trees on Development Sites. These trees will not be viable to be retained and will be required to be removed due to the proposed development.

The scope of this report is to include all trees identified on survey. There a large number of small self-seeded saplings on the site which have not been included in detail in this report however these saplings will not be viable to be retained within this proposed development.

Recommendations for tree retention or removal are summarised as follows:

| Tree no. | Species            | Recommendations | Comments   |
|----------|--------------------|-----------------|--|
| 1.       | Eucalyptus fibrosa | Remove          | Not viable to be retained due to TPZ encroachment by proposed development. |
| 2.       | Eucalyptus fibrosa | Remove          | Not viable to be retained due to TPZ encroachment by proposed development. |

|      |                         |          | Not viable to be retained due to TPZ  |
|------|-------------------------|----------|---------------------------------------|
| 3.   | Eucalyptus moluccana    | Remove   | encroachment by proposed              |
| ] 3. | Lucuiyptus moluccunu    | Kemove   | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 4.   | Fuestus meluecana       | Remove   | encroachment by proposed              |
| 4.   | Eucalyptus moluccana    | Kemove   | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 5.   | Fundamentus madusasma   | Remove   | encroachment by proposed              |
| ٥.   | Eucalyptus moluccana    | Kelliove | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 6.   | Eucaluntus moluscana    | Remove   | encroachment by proposed              |
| 0.   | Eucalyptus moluccana    | Kemove   | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 7.   | Fundamentus madusasma   | Remove   |                                       |
| /.   | Eucalyptus moluccana    | Remove   | encroachment by proposed development. |
|      |                         |          | Not viable to be retained due to TPZ  |
| 8.   | Fuestus meluecana       | Remove   | encroachment by proposed              |
| 0.   | Eucalyptus moluccana    | Kemove   | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 9.   | Eucalyptus tereticornis | Remove   | encroachment by proposed              |
| J.   | Euculyptus tereticornis | Kemove   | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 10.  | Eucalyptus tereticornis | Remove   | encroachment by proposed              |
| 10.  | Lucuiyptus tereticornis | Remove   | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 11.  | Eucalyptus tereticornis | Remove   | encroachment by proposed              |
|      | Lacarypeas tereticorms  |          | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 12.  | Melaleuca linarifolia   | Remove   | encroachment by proposed              |
|      |                         |          | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 13.  | Eucalyptus tereticornis | Remove   | encroachment by proposed              |
|      | 71                      |          | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 14.  | Eucalyptus tereticornis | Remove   | encroachment by proposed              |
|      |                         |          | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 15.  | Melaleuca linarifolia   | Remove   | encroachment by proposed              |
|      | -                       |          | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 16.  | Eucalyptus crebra       | Remove   | encroachment by proposed              |
|      |                         |          | development.                          |
|      |                         |          | Not viable to be retained due to TPZ  |
| 17.  | Eucalyptus fibrosa      | Remove   | encroachment by proposed              |
|      |                         |          | development.                          |
| L    | 1                       | <u> </u> | 1                                     |

|     |                         |         | Not viable to be retained due to TPZ               |
|-----|-------------------------|---------|--|
| 18. | Eucalyptus crebra       | Remove  | encroachment by proposed                           |
| 10. | Lucuiyptus crebiu       | Kemove  | development.                                       |
|     |                         |         | Not viable to be retained due to TPZ               |
| 19. | Eucalyptus fibrosa      | Remove  | encroachment by proposed                           |
| 15. | Lucuiyptus jibrosu      | Kemove  | development.                                       |
|     |                         |         | Not viable to be retained due to TPZ               |
| 20. | Eucalyptus tereticornis | Remove  | encroachment by proposed                           |
| 20. | Lucuiyptus tereticornis | Kemove  | development.                                       |
|     |                         |         | Not viable to be retained due to TPZ               |
| 21. | Eucalyptus crebra       | Remove  | encroachment by proposed                           |
| 21. | Euculyptus crebiu       | Kemove  | development.                                       |
|     |                         |         | Not viable to be retained due to TPZ               |
| 22. | Fuedbutus erobra        | Remove  | encroachment by proposed                           |
| 22. | Eucalyptus crebra       | Remove  | development.                                       |
|     |                         |         | Not viable to be retained due to TPZ               |
| 23. | Fundament and har       | Remove  | encroachment by proposed                           |
| 25. | Eucalyptus crebra       | Remove  |  |
|     |                         |         | development.  Not viable to be retained due to TPZ |
| 24. | 5 and at a 6th and      | Domovo  |  |
| 24. | Eucalyptus fibrosa      | Remove  | encroachment by proposed                           |
|     |                         |         | development.  Not viable to be retained due to TPZ |
| 25. | 5 and at a south as     | Domovo  |  |
| 25. | Eucalyptus crebra       | Remove  | encroachment by proposed                           |
|     |                         |         | development.  Not viable to be retained due to TPZ |
| 26. | 5                       | Domovo  |  |
| 20. | Eucalyptus moluccana    | Remove  | encroachment by proposed development.              |
|     |                         |         | Not viable to be retained due to TPZ               |
| 27  | 5                       | Domovo  |  |
| 27. | Eucalyptus moluccana    | Remove  | encroachment by proposed development.              |
|     |                         |         | Not viable to be retained due to TPZ               |
| 28. | E and all advantages of | Domovo  |  |
| 28. | Eucalyptus tereticornis | Remove  | encroachment by proposed                           |
|     |                         |         | development.  Not viable to be retained due to TPZ |
| 20  | 6                       | Damasus |  |
| 29. | Cupressus spp           | Remove  | encroachment by proposed                           |
|     |                         |         | development.                                       |
| 20  |                         | Davis   | Not viable to be retained due to TPZ               |
| 30. | Melaleuca linarifolia   | Remove  | encroachment by proposed                           |
| 2.1 |                         |         | development.                                       |
| 31. | Casuarina spp           | Remove  | Failed leader.                                     |
|     |                         | _       | Not viable to be retained due to TPZ               |
| 32. | Casuarina spp           | Remove  | encroachment by proposed                           |
|     |                         |         | development.                                       |

|     |                                      |  | Not viable to be retained due to TPZ |
|-----|--------------------------------------|--|--------------------------------------|
| 34. | Melaleuca armillaris                 | Remove                                 |                                      |
| 54. | Wielaleaca arrilliaris               | Kemove                                 | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 35. | Melaleuca armillaris                 | Remove                                 | encroachment by proposed             |
| 33. | Wielaleaca arrilliaris               | Kemove                                 | development.                         |
| 36. | Cinnamonum camphora                  | Remove                                 | Poor and declining condition.        |
| 30. | Cinnamomum camphora                  | Kemove                                 | Not viable to be retained due to TPZ |
| 37. | Melaleuca linarifolia                | Remove                                 | encroachment by proposed             |
| 37. | Wielaleaca Illiarijolia              | Kemove                                 | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 38. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
| 56. | Euculypius tereticornis              | Kemove                                 | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 39. | Eucalyptus tereticornis              |  | encroachment by proposed             |
| 33. | Euculypius tereticornis              | Kemove                                 | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 40. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
| 40. | Lucuiyptus tereticornis              | Remove end dev Remove Pool live        | development.                         |
|     |                                      |  | Poor and declining condition. Entire |
| 41. | Eucalyptus tereticornis              | Remove                                 | live canopy epicormic.               |
|     |                                      |  | Not viable to be retained due to TPZ |
| 42. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
|     | Lucuryptus tereticorms               |  | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 43. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
|     |                                      |  | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 44. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
|     |                                      |  | development.                         |
|     |                                      | Remove  Remove  Remove  Remove  Remove | Not viable to be retained due to TPZ |
| 45. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
|     |                                      |  | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 46. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
|     |                                      |  | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 47. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
|     |                                      |  | development.                         |
|     |                                      |  | Not viable to be retained due to TPZ |
| 48. | Eucalyptus tereticornis              | Remove                                 | encroachment by proposed             |
|     |                                      |  | development.                         |
| 40  |                                      |  | ·                                    |
| 49. | Eucalyptus tereticornis              | Remove                                 | Extensive decay at base of trunk.    |
| 50. | Eucalyptus tereticornis Populus alba | Remove<br>Retain                       | ·                                    |

| 52. | Eucalyptus tereticornis | Retain |  |
|-----|-------------------------|--------|--|
| 53. | Eucalyptus tereticornis | Retain | Location of proposed bio-retention basin to be surveyed outside of TPZ of this tree. |
| 54. | Eucalyptus tereticornis | Retain | Location of proposed bio-retention basin to be surveyed outside of TPZ of this tree. |
| 55. | Eucalyptus tereticornis | Retain | Location of proposed bio-retention basin to be surveyed outside of TPZ of this tree. |
| 56. | Eucalyptus tereticornis | Retain | Location of proposed bio-retention basin to be surveyed outside of TPZ of this tree. |
| 57. | Eucalyptus tereticornis | Retain | Location of proposed bio-retention basin to be surveyed outside of TPZ of this tree. |

## 6.0 References

Mattheck, C. Breloer, K. 1993, The Body Language of Trees: A Handbook for Failure Analysis, 12th Impression 2010 The Stationery Office.

AS4970-2009 Protection of Trees on Development Sites: Standards Australia

## 11.0 Disclaimer

This Appraisal has been prepared for the exclusive use of the Client and Birds Tree Consultancy.

Birds Tree Consultancy accepts no responsibility for its use by other persons. The Client acknowledges that this Appraisal, and any opinions, advice or recommendations expressed or given in it, are based on the information supplied by the Client and on the data inspections, measurements and analysis carried out or obtained Birds Tree Consultancy and referred to in the Appraisal. The Client should rely on the Appraisal, and on its contents, only to that extent.

Every effort has been made in this report to include, assess and address all defects, structural weaknesses, instabilities and the like of the subject trees. All inspections were made from ground level using only visual means and no intrusive or destructive means of inspection were used. For many structural defects such as decay and inclusions, internal inspection is required by means of Resistograph or similar. No such investigation has been made in this case. Trees are living organisms and are subject to failure through a variety of causes not able to be identified by means of this inspection and report.

| Appendix A - Tree Inspection Data |
|-----------------------------------|
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# Birds Tree Consultancy

Consulting Arborist• Project Management • Horticultural Consultancy • Landscape Management

Inspection Data

25-Jun-18

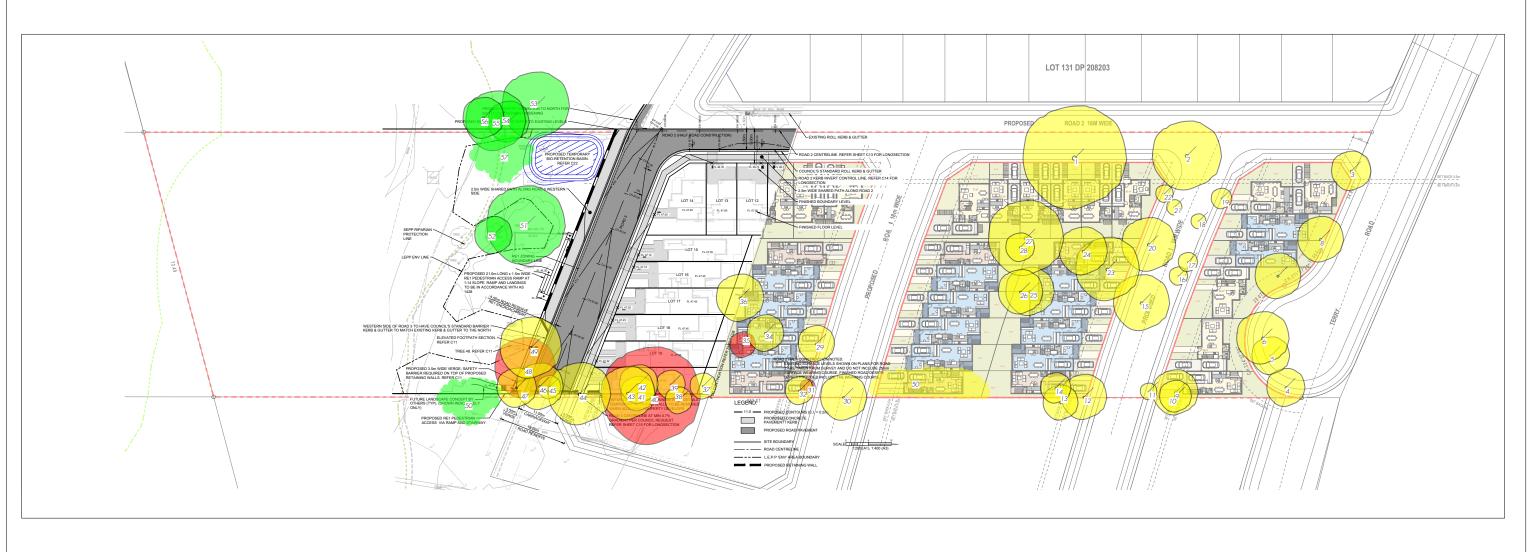
| Terry Roa | d Rouse Hill               | 25-1011-10 |          |        |        |             |                    |       |           |            |            |           |           |                |         |                     |          |  |            |                       |        |                |                |           |            |        |   |
|-----------|----------------------------|------------|----------|--------|--------|-------------|--------------------|-------|-----------|------------|------------|-----------|-----------|----------------|---------|---------------------|----------|--|------------|-----------------------|--------|----------------|----------------|-----------|------------|--------|---|
|           |                            |            |          |        |        |             | Trunk              |       |           |            |            |           |           |                |         |                     |          |  |            |                       |        |                |                |           |            |        |   |
|           |                            |            |          |        |        |             | (single,           |       |           |            |            |           |           |                |         |                     |          |  |            |                       |        |                |                |           | Env. &     |        |   |
|           |                            |            |          |        | TPZ    |             | twin,              |       |           |            | Crown      |           |           |                |         |                     | Overall  |  |            |                       |        | Pest           |                | Life      | Landcape   |        |   |
|           |                            |            | Spread(m |        | Radius |             | multiple           | Trunk |           | Branching  | Distributi |           | Branching | ′I             |         |                     | Health & | Canopy                                 |            | Deadwoo               | '      | Infestatio     |                | expectanc | significan |        |   |
| Tree no.  | Species                    | Height (m) | )        | (mm)   | (m)    | Maturity    | @)                 | lean  | wn shape  | Habit      | on         | Stability | Structure | History        | Defects | Damage              | Vigour   | Density                                | Foliage    | d                     | Growth | n              | Disease        | У         | ce         | Value  | Notes/Comments                                |
|           |                            |            |          |        |        |             |                    |       |           |            |            |           |           |                |         | Limb                |          |  |            |                       |        |                |                |           |            |        |   |
|           |                            |            |          |        |        |             |                    |       |           |            |            |           |           |                |         | failure at          |          |  |            |                       |        |                |                |           |            |        | Previous failure at bark                      |
|           | <b>5</b>                   |            |          |        |        |             | T                  |       |           |            |            |           |           |                |         | bark                |          |  |            |                       |        | <b>.</b>       |                |           |            |        | inclusion. Remove                             |
| 1         | Eucalyptus<br>fibrosa      | 24         | 15       | 115    | 120    | 6 Mature    | Twin @<br>base     | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | No<br>evidence | Nil     | inclusion,<br>Wound | Good     | Normal                                 | Normal     | <5%                   | <5%    | No<br>evidence | No<br>evidence | 15-40y    | High       | High   | northern co dominant<br>trunk                 |
|           | Eucalyptus                 | 24         | 13       | , 113. | 13.0   | iviature    | Dase               | INIL  | INOTITIAL | INOTITIAL  | balanceu   | Stable    | Stable    | No             | INII    | vvounu              | Good     | INOTITIAL                              | INOTITIAL  | \3/0                  | \3/0   | No             | No             | 13-40y    | High       | Tilgii | trunk   |
| 2         | fibrosa                    | 28         | 15       | 770    | 9.2    | 4 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             | ,         | J          |        |   |
| 3         | moluccana                  | 22.5       | 9        | 440    | 0 5.2  | 8 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             |           |            |        |   |
| 4         | moluccana                  | 20         | 9        | 425    | 5 5.   | 1 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | F a a b a b a              |            |          |        |        |             |                    |       |           |            |            |           |           | ,              |         |                     |          |  |            |                       |        |                | N              |           |            |        | W/  |
|           | Eucalyptus<br>moluccana    | 16.5       | 11       | 420    | 5.0    | 4 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | No<br>evidence | Nil     | Wound               | Good     | Normal                                 | Normal     | <5%                   | <5%    | No<br>evidence | evidence       | 15 /04    | High       | High   | Wound at base appears well compartmentalised. |
| 3         | Eucalyptus                 | 10.5       | 11       | 420    | 3.0    | 4 Mature    | Siligle            | INIL  | NOTITIAL  | INUITITAL  | Dalaliceu  | Stable    | Stable    | No             | INII    | Woullu              | Good     | INUITII                                | NOTITIAL   | <b>\(\sigma_{0}\)</b> | <3%    | No             | No             | 15-40y    | півіі      | півіі  | wen compartmentanseu.                         |
| 6         | moluccana                  | 24         | 12       | 585    | 5 7.0  | 2 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             | ,         |            |        |   |
| 7         | moluccana                  | 21.5       | 12       | 510    | 0 6.1  | 2 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Poor     | Sparse                                 | Normal     | 40%                   | 40%    | evidence       | evidence       | 5-15y     | Moderate   | Low    |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             |           |            |        |   |
| 8         | moluccana                  | 19         | 8        | 510    | 0 6.1  | 2 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Poor     | Thinning                               | Normal     | 20%                   | 50%    | evidence       |                | 5-15y     | High       | High   | Significant apical dieback                    |
|           | Eucalyptus<br>tereticornis | 19         |          | 50!    |        | 6 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Ctable    | Stable    | No<br>evidence | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | No<br>evidence | No             | 15 404    | High       | High   |   |
|           | Eucalyptus                 | 19         | 9        | 303    | 5 6.0  | viature     | Siligle            | INIL  | INUITIIAI | Normal     | balanceu   | Stable    | Stable    | No             | INII    | INII                | Good     | INUITIIAI                              | Normal     | <b>13%</b>            | <5%    | No             | evidence       | 15-40y    | півіі      | півіі  |   |
| 10        | tereticornis               | 16         | 11       | 35!    | 5 4.2  | 6 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             | ,         |            |        |   |
| 11        | tereticornis               | 10         | 4        | 185    | 5 2.2  | 2 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Melaleuca                  |            |          |        | _      |             | L                  | l     | ļ., ,     |            | <u>.</u>   |           |           | No             |         |                     |          | ļ                                      | l          |                       |        | No             | No             |           |            |        |   |
| 12        | linarifolia                | 11         | 8        | 50!    | 6.0    | 6 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence<br>No |                | 15-40y    | High       | High   |   |
| 13        | Eucalyptus<br>tereticornis | 11         | , a      | 390    | 0 4.6  | 8 Mature    | Twin @<br>base     | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | No<br>evidence | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | No<br>evidence | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          | 330    | 4.0    | Viatare     | busc               | IVIL  | Itomiai   | Normai     | Dalaricca  | Stable    | Stable    | No             | 1       | 14                  | 0000     | Ivoimai                                | Normai     | 1370                  | 1370   | No             | No             | 13 40y    | 111611     | Ingn   |   |
| 14        | tereticornis               | 15         | 8        | 340    | 0 4.0  | 8 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           |                            |            |          |        |        |             | Multiple           |       |           |            |            |           |           |                |         |                     |          |  |            |                       |        |                |                |           |            |        |   |
|           | Melaleuca                  |            |          |        |        |             | (3) @              |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             |           |            |        |   |
| 15        | linarifolia                | 11.5       | 9        | 625    | 5 7.   | 5 Mature    | base               | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
| 16        | Eucalyptus                 | 11         | _        | 20!    | 5 24   | 6 Mature    | Cinglo             | NIII  | Normal    | Normal     | Palancod   | Ctable    | Ctable    | No             | NII     | Niil                | Cood     | Normal                                 | Normal     | <5%                   | <5%    | No             | No             | 15 404    | ⊔iah       | Lligh  |   |
| 10        | crebra<br>Eucalyptus       | 11         | 3        | 203    | 2.4    | olviature   | Single<br>Twin @   | NIL   | Normal    | Normai     | Balanced   | Stable    | Stable    | evidence<br>No | INII    | NII                 | Good     | Normal                                 | Normai     | <b>13%</b>            | <5%    | No             | evidence<br>No | 15-40y    | High       | High   |   |
| 17        | fibrosa                    | 9.5        | 5        | 21!    | 5 2.5  | 8 Mature    | base               | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | 1              | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             | ,         | Ĭ          |        |   |
| 18        | crebra                     | 10         | 4        | 160    | 0      | 2 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 | _          |          | _      |        |             |                    |       | ļ         | <u>.</u> . |            |           |           | No             |         |                     |          |  | <u>.</u> . |                       |        | No             | No             | 4.5       | l          |        |   |
| 19        | fibrosa                    | 13         | 5        | 230    | U 2.7  | 6 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
| 20        | Eucalyptus<br>tereticornis | 18         | 11       | 600    | 0 7    | 2 Mature    | Multiple<br>@ base | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | No<br>evidence | Nil     | Nil                 | Fair     | Thinning                               | Normal     | 30%                   | <5%    | No<br>evidence | No<br>evidence | 5-15v     | Moderate   | llow   | Significant apical dieback                    |
| 20        | Eucalyptus                 | 10         | 11       | . 000  | 7.     | _ iviature  | e base             | INIL  | INOTITIAL | HUIIIIai   | Dalaticed  | Jeane     | Jeane     | No             | 1.411   | I.VIII              | i dii    | 11111111111111111111111111111111111111 | HUITIAI    | 30%                   | 13/0   | No             | No             | J-13y     | Moderate   | LUVV   | Digitilicant apical dieback                   |
| 21        | crebra                     | 10         | 4        | 170    | 0 2.0  | 4 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | 1              | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             |           |            |        |   |
| 22        | crebra                     | 9.5        | 4        | 19!    | 5 2.3  | 4 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    |                | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 | _          |          |        |        |             | Twin @             |       | <u> </u>  | <u>.</u> . |            |           |           | No             | ļ       |                     |          |  | <u>.</u> . |                       |        | No             | No             |           | l          |        |   |
| 23        | crebra                     | 25         | 16       | 710    | U 8.5  | 2 Mature    | base               | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       |                | 15-40y    | High       | High   | Some apical dieback                           |
| 24        | Eucalyptus<br>fibrosa      | 23         | 12       | 53!    | 5 64   | 2 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | No<br>evidence | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | No<br>evidence | No<br>evidence | 15-40y    | High       | High   |   |
| 2-        | Eucalyptus                 | 23         | 12       | . 55.  | 0.4    | _ indiatare | Jiligic            | 1     | - Indiana |            | Salaricca  | Justic    | Januaria  | No             |         | 1                   | 3000     | 110111101                              |            | 1.575                 | .5,0   | No             | No             | 20 109    | 6.,        |        |   |
| 25        | crebra                     | 23.5       | 12       | 540    | 6.4    | 8 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Fair     | Thinning                               | Normal     | <5%                   | 20%    | evidence       | evidence       | 15-40y    | High       | High   |   |
|           | Eucalyptus                 |            |          |        |        |             |                    |       |           |            |            |           |           | No             |         |                     |          |  |            |                       |        | No             | No             |           |            |        |   |
| 26        | moluccana                  | 15.5       | 13       | 495    | 5.9    | 4 Mature    | Single             | NIL   | Normal    | Normal     | Balanced   | Stable    | Stable    | evidence       | Nil     | Nil                 | Good     | Normal                                 | Normal     | <5%                   | <5%    | evidence       | evidence       | 15-40y    | High       | High   |   |

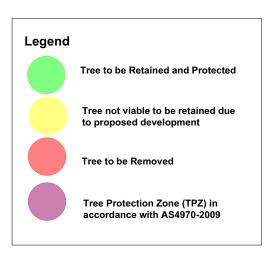
|        |                            |            |          |          |              |            |       | Trunk              |               |           |                    |          |           |                        |                |                   |               |                 |                   |            |              |                     |                |                |        |               |                    |  |
|--------|----------------------------|------------|----------|----------|--------------|------------|-------|--------------------|---------------|-----------|--------------------|----------|-----------|------------------------|----------------|-------------------|---------------|-----------------|-------------------|------------|--------------|---------------------|----------------|----------------|--------|---------------|--------------------|--|
|        |                            |            |          |          |              |            |       | (single,           |               |           |                    |          |           |                        |                |                   |               |                 |                   |            |              |                     |                |                |        | Env. &        |                    |  |
|        |                            |            | C        | DDII     | TPZ          |            |       | twin,              | Tarrada       | F/C       | Dun u abia a       | Crown    |           | Dun u alain a          | D              |                   |               | Overall         | C                 |            | Danduna      |                     | Pest           |                | Life   | Landcape      | Data ation         |  |
| ee no. | Species                    | Height (m) | Spread(m | (mm)     | Radiu<br>(m) | us<br>Matu |       | multiple<br>@)     | Trunk<br>lean | wn shape  | Branching<br>Habit | on       | Stability | Branching<br>Structure | 1              | Defects           | Damage        | Health & Vigour | Canopy<br>Density | Foliage    | d            | Epicormic<br>Growth | Infestatio     | Disease        | v      | ce significan | Retention<br>Value | Notes/Comments                                   |
|        | Eucalyptus                 | - 0 - ( )  | ,        | , ,      | ,            |            | - 7   |                    |               |           |                    |          | ,         |                        | No             |                   |               | 0.1             |                   |            |              |                     | No             | No             |        |               |                    |  |
| 27     | moluccana                  | 35         | 18       | 8        | 340          | 10.08 Matu | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence       | evidence       | 15-40y | High          | High               |  |
| 20     | Eucalyptus                 | 44.5       |          |          | 120          | 2 24 24    |       | 61                 |               |           |                    | D. I I   | CL - I-I- | CL-1-1-                | No             |                   |               | G I             |                   |            | -50/         | -50/                | No             | No             | 45.40  | 112.1         | 112.1              |  |
| 28     | tereticornis               | 14.5       | 9        | 3        | 20           | 3.84 Matu  | ire   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence<br>No | NII               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence<br>No | evidence<br>No | 15-40y | High          | High               |  |
| 29     | Cupressus spp              | 11.5       | 4        | 4        | 105          | 4.86 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | 1              | evidence       | 15-40y | Low           | Low                |  |
|        | Melaleuca                  |            |          |          |              |            |       | Twin @             |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             |        |               |                    |  |
| 30     | linarifolia                | 10.5       | 8        | 5        | 15           | 6.18 Matu  | ıre   | base               | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence<br>No | Nil               | Nil<br>Failed | Good            | Normal            | Normal     | <5%          | <5%                 | evidence<br>No | evidence<br>No | 15-40y | High          | High               |  |
| 31     | Casuarina spp              | 8.5        | 6        | 1        | .40          | 2 Matu     | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | leader        | Good            | Normal            | Normal     | <5%          | <5%                 | 1              | evidence       | 15-40y | Low           | Low                | Failed leader. Remove                            |
|        |                            |            |          |          |              |            | ĺ     |                    |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             |        |               |                    |  |
| 32     | Casuarina spp<br>Melaleuca | 13         | 6        | 3        | 15           | 3.78 Matu  |       | Single<br>Multiple | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence<br>No | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence<br>No | evidence<br>No | 15-40y | High          | High               |  |
| 34     | armillaris                 | 10         | 8        | 4        | 10           | 4.92 Matu  |       | @ base             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence       | evidence       | 15-40y | High          | High               |  |
|        | Melaleuca                  |            |          |          |              |            |       |                    |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | -              | No             |        |               |                    |  |
| 35     | armillaris                 | 8.5        | 5        | 2        | !85          | 3.42 Matu  | ıre : | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | <del> </del>   | evidence       | 15-40y | High          | High               | Poor and declining                               |
| 36     | Cinnamomum camphora        | 15         | 12       | 5        | 30           | 6.36 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | No<br>evidence | Nil               | Nil           | Poor            | Sparse            | Normal     | 609          | 60%                 | No<br>evidence | No<br>evidence | <5v    | Low           | Low                | condition. Remove                                |
|        | Melaleuca                  |            |          |          |              |            |       | J -                |               |           |                    | 1        |           |                        | No             |                   |               |                 | 1                 | 1          | 1            | 1                   | No             | No             |        |               |                    | 2  |
| 37     | linarifolia                | 8.5        | 4        | 2        | 90           | 3.48 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 |                | evidence       | 15-40y | High          | High               |  |
| 38     | Eucalyptus<br>tereticornis | 15.5       | 12       | ] a      | 800          | 3.6 Matu   | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | No<br>evidence | Nil               | Nil           | Fair            | Normal            | Normal     | <5%          | <5%                 | No<br>evidence | No<br>evidence | 15-40v | High          | High               |  |
|        | Eucalyptus                 | 20.0       |          |          | -            | 0.0        |       | 06.0               | 12            | 110111101 |                    | Dalaneea | 014010    | - Ctable               | No             |                   |               |                 | 110111101         | - Troiling | 370          | 1070                | No             | No             | 25 .57 | 16            |                    |  |
| 39     | tereticornis               | 16.5       | 8        | 3        | 20           | 3.84 Matu  |       | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence       | evidence       | 15-40y | High          | High               |  |
|        | Eucalyptus                 |            |          |          |              |            |       | Multiple<br>(3) @  |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             |        |               |                    |  |
| 40     | tereticornis               | 29.5       | 14       | 10       | 90           | 13.08 Matu | ıre   | base               | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Fair            | Thinning          | Normal     | <5%          | <5%                 | l              | evidence       | 15-40y | Moderate      | Moderate           | Moderate apical diebac                           |
|        |                            |            |          |          |              |            |       |                    |               |           |                    |          |           |                        |                |                   |               |                 |                   |            |              |                     |                |                |        |               |                    | Poor and declining                               |
|        |                            |            |          |          |              |            |       |                    |               |           |                    |          |           |                        |                |                   |               |                 |                   |            |              |                     |                |                |        |               |                    | condition. Remove, Poo<br>condition. Entire live |
|        | Eucalyptus                 |            |          |          |              |            |       |                    |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             |        |               |                    | canopy epicormic.                                |
| 41     | tereticornis               | 14         | 7        | 3        | 85           | 4.62 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Poor            | Sparse            | Normal     | 60%          | 100%                | evidence       | evidence       | <5y    | Low           | Low                | Remove   |
|        | Eucalyptus                 |            |          |          |              |            |       |                    |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             |        |               |                    |  |
| 42     | tereticornis<br>Eucalyptus | 22.5       | 12       | 4        | 30           | 5.16 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence<br>No | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence<br>No | evidence<br>No | 15-40y | High          | High               |  |
| 43     | tereticornis               | 30         | 14       | 6        | 500          | 7.2 Matu   | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence       | evidence       | 15-40y | High          | High               |  |
|        | Eucalyptus                 |            |          |          |              |            | ĺ     |                    |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             |        |               |                    |  |
| 44     | tereticornis<br>Eucalyptus | 27         | 16       | 6        | 95           | 8.34 Matu  |       | Single<br>Multiple | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence<br>No | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence<br>No | evidence<br>No | 15-40y | High          | High               |  |
| 45     | tereticornis               | 10         | 5        | 2        | 160          | 3.12 Matu  |       | @ base             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | 1              | evidence       | 15-40y | Moderate      | Moderate           |  |
|        | Eucalyptus                 |            |          |          |              |            | ŀ     | Twin @             |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             |        |               |                    |  |
|        | tereticornis               | 19         | 12       | 5        | 20           | 6.24 Matu  | ıre   | base               | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | <del> </del>   | evidence       | 15-40y | High          | High               |  |
|        | Eucalyptus<br>tereticornis | 15.5       | 9        | 4        | 40           | 5.28 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | No<br>evidence | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | No<br>evidence | No<br>evidence | 15-40v | High          | High               |  |
|        | Eucalyptus                 |            |          |          |              |            |       | Twin @             |               |           |                    |          |           |                        | No             |                   |               |                 |                   |            |              |                     | No             | No             | ,      |               |                    | Wound appears well                               |
| 48     | tereticornis               | 21         | 14       | (        | 75           | 8.1 Matu   | ıre   | base               | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Wound         | Good            | Normal            | Normal     | <5%          | <5%                 |                | evidence       | 15-40y | High          | High               | compartmentalised                                |
| 49     | Eucalyptus<br>tereticornis | 24         | 12       | 6        | i85          | 8.22 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | No<br>evidence | Evidence of decay | Wound         | Good            | Normal            | Normal     | <5%          | <5%                 | No<br>evidence | No<br>evidence | 15-40v | High          | Low                | Extensive decay at base of trunk. Remove         |
|        |                            |            |          | <u> </u> |              |            |       | J -                |               |           |                    |          |           | No                     |                |                   |               |                 | 1                 | 1          |              | No                  | No             |                |        | 1             |                    |  |
| 50     | Populus alba               | 10.5       | 8        | 2        | .05          | 2.46 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | evidence               | Nil            | Nil               | Good          | Normal          | Normal            | <5%        | <5%          | evidence            | evidence       | 15-40y         | High   | High          | Retain             |  |
|        |                            |            |          |          |              |            |       |                    |               |           |                    |          |           |                        |                |                   |               |                 |                   |            |              |                     |                |                |        |               |                    | Fungal fruiting body present, Extensive          |
|        |                            |            |          |          |              |            |       |                    |               |           |                    |          |           |                        |                |                   |               |                 |                   |            |              |                     |                |                |        |               |                    | decay at base of trunk.                          |
|        |                            |            |          |          |              |            |       |                    |               |           |                    |          |           |                        |                |                   |               |                 |                   |            |              |                     |                |                |        |               |                    | Recommend  |
| г4     | Eucalyptus                 | 10         | 1.4      | _        | 200          | 10 60 145  | ,ro   | Single             | NIII          | Normal    | Normal             | Palancad | Stable    | Stable                 | No             | Evidence          | Nii           | Good            | Normal            | Normal     | <b>/</b> 50/ | <b>∠</b> 50∕        | No             | No             | 15 40. | Lliah         | High               | resistograph or risk                             |
| 51     | tereticornis<br>Eucalyptus | 19         | 14       | 8        | 390          | 10.68 Matu | ii.e  | Single             | NIL           | Normal    | Normal             | Balanced | SIGDIG    | Stable                 | evidence<br>No | of decay          | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence<br>No | evidence<br>No | 15-4UY | High          | High               | assessment                                       |
| 52     | tereticornis               | 21         | 11       | 4        | 20           | 5.04 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | l              | evidence       | 15-40y | High          | High               |  |
|        | Eucalyptus                 |            |          |          |              |            |       | <u> </u>           |               |           |                    |          | S. 1.     | 6. 1.                  | No             |                   |               |                 |                   |            | 50/          | 50/                 | _              | No             | 45     |               |                    |  |
| 53     | tereticornis<br>Eucalyptus | 22         | 12       | 7        | '50          | 9 Matu     | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence<br>No | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence<br>No | evidence<br>No | 15-40y | High          | High               |  |
| 54     | tereticornis               | 20         | 12       | 4        | 80           | 5.76 Matu  | ıre   | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | Nil               | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence       | 1              | 15-40y | High          | High               |  |
|        | Eucalyptus                 |            |          |          |              |            |       |                    |               |           |                    |          |           | 1                      | No             |                   |               |                 |                   |            |              |                     | No             | No             |        | <u> </u>      |                    |  |
|        | tereticornis               | 21         | 12       | 1 6      | 80           | 8.16 Matu  |       | Single             | NIL           | Normal    | Normal             | Balanced | Stable    | Stable                 | evidence       | INil              | Nil           | Good            | Normal            | Normal     | <5%          | <5%                 | evidence       | lovidonco      | 15 104 | High          | High               | I  |

| Eucalyptus      |    |    |     |             |        |     |        |        |          |        |        | No       |     |     |      |        |        |     |     | No       | No       |        |      |      | 1 |
|-----------------|----|----|-----|-------------|--------|-----|--------|--------|----------|--------|--------|----------|-----|-----|------|--------|--------|-----|-----|----------|----------|--------|------|------|---|
| 56 tereticornis | 22 | 12 | 470 | 5.64 Mature | Single | NIL | Normal | Normal | Balanced | Stable | Stable | evidence | Nil | Nil | Good | Normal | Normal | <5% | <5% | evidence | evidence | 15-40y | High | High | 1 |
| Angophora       |    |    |     |             |        |     |        |        |          |        |        | No       |     |     |      |        |        |     |     | No       | No       |        |      |      |   |
| 57 floribunda   | 10 | 3  | 120 | 2 Mature    | Single | NIL | Normal | Normal | Balanced | Stable | Stable | evidence | Nil | Nil | Good | Normal | Normal | <5% | <5% | evidence | evidence | 15-40y | High | High | 1 |

## Appendix B Tree Location Plans

**Tree Protection Plans** 





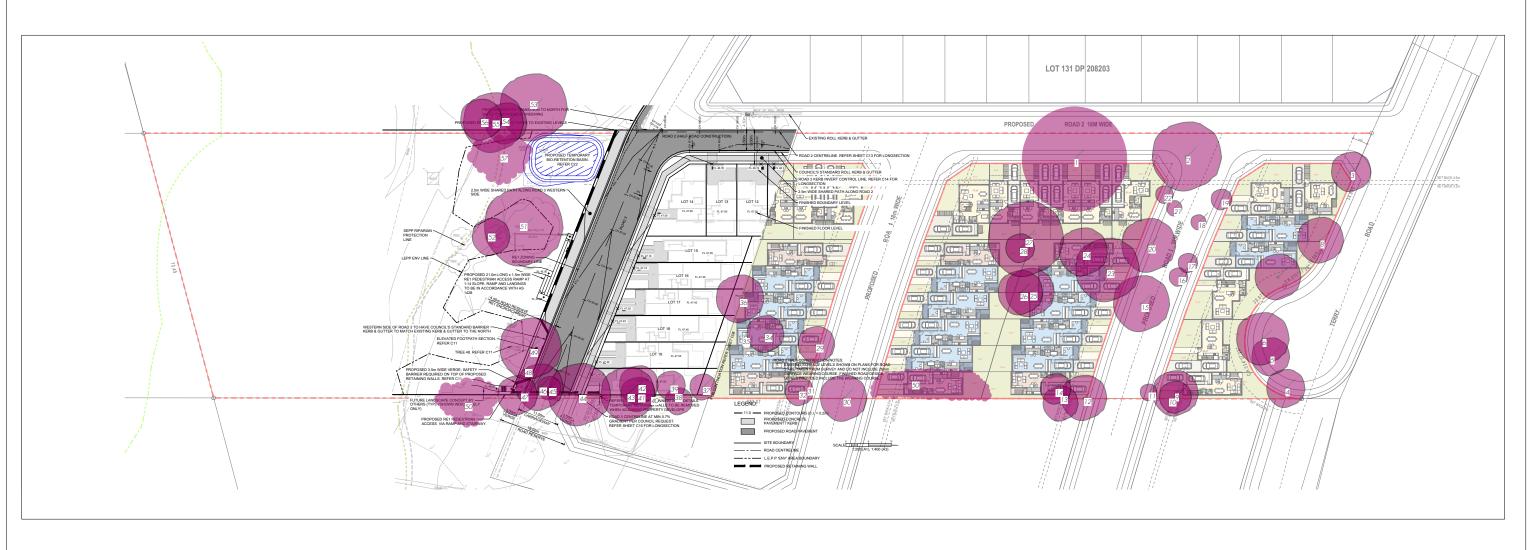
## **Birds** Tree Consultancy

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Project: 54 Terry Road Rouse Hill

Client: Caverstock DWG: A01 REV A Plan: Tree Location Plan

Date: 10 Feb 2020 Scale: 1:1000 @ A3





## **Birds** Tree Consultancy

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Project: 54 Terry Road Rouse Hill

Client: Caverstock DWG: A02 REV A

Plan: Tree Protection Zone Plan

Date: 10 Feb 2020 Scale: 1:1000 @ A3