L&Co
CONSULTANCY
ARBORICULTURE
PLANT PATHOLOGY

ARBORICULTURAL IMPACT ASSESSMENT
&
TREE PROTECTION SPECIFICATION

REF: L&Co25006 | 13 May 2025 | v2
SITE ADDRESS | 154 Plateau Rd, Bilgola Plateau
PREPARED FOR | Asri Halis c/o ERA
PREPARED BY |

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1.0 EXECUTIVE SUMMARY |

1.1 The proposal, outlined in the supplied plans, shows the demolition of some existing structures and alterations and additions to the existing residential dwelling including construction of a deck, retaining walls, pool, shed, cabana and associated landscaping at 154 Plateau Rd, Bilgola Plateau. The plans also include a garage and demolition of existing structures at the front of the property.

1.2 A total of thirty (30) trees were assessed that were a mix of Australian native and exotic species.

1.3 Trees 16, 22, 27, 28, 29 & 30 were located on adjacent properties and were assigned Retention Values of Priority for Retention.

1.4 The supplied plans show no works are proposed within the TPZs of Trees 8, 10,16, 22, 23, 24, 27, 28, 29 & 30. However, the tree protection measures outlined in this report should be implemented to avoid indirect impacts

1.5 The proposed works are within the SRZs & TPZ's of Trees 1,5,7,9,11,13,14,15,17,18,19,21,25 & 26 and represent a *Major Encroachment* (as defined by AS4970). Trees 14, 25 & 26 can be retained under Clause 3.3.4 of AS4970 if the tree protection measures and tree sensitive construction methods detailed in this report are carefully implemented. Trees 1,5,7,9,11,13 ,15,17,18,19 & 21 will need to be removed as the TPZ encroachment is too large for their long-term viability, based on a consideration of their health, structure and the size of the encroachment. These trees were all assigned Low to Moderate Landscape Significance Values except for Trees 7 & 9, which were assigned a High Landscape Significance Values.

1.6 Trees 2, 3, 4 are within the footprint of demolition and construction of new driveway and garage and will need to be removed. Trees 12 & 20 are within the proposed pool and landscaping footprint and will need to be removed. Trees 12 & 20 were assigned High and Low Landscape Significance Values, respectively.

1.7 The location of the underground services was not detailed in the supplied plans. The installation of underground services should be located outside of the TPZs detailed in this report. Where this is not possible, they should be installed around or below roots (>25mm∅) using either hydrovac or hand excavation and supervised by the Project Arborist.

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2.0 INTRODUCTION |

2.1 Background

2.1.1 This Arboricultural Impact Assessment and Tree Protection Specification Report was prepared for Asri Halis c/o ERA in relation to the proposed development of 154 Plateau Rd, Bilgola Plateau. This report has determined the impact of the proposed works on the trees at 154 Plateau Rd, Bilgola Plateau and neighbouring properties and where appropriate, has provided tree sensitive construction methods to minimise negative impacts to the trees.

2.1.2 In preparing this report, the author is aware of and has considered the objectives of the Northern Beaches Council (Pittwater)'s *Pittwater 21 Development Plan Part B4.22 Preservation of Trees and Bushland Vegetation (2004), Pittwater Local Environment Plan (2014), Australian Standard 4970 Protection of Trees on Development Sites (2009), Australian Standard 4373 Pruning of Amenity Trees (2007) and Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)*.

2.1.3 Further methodology used in the preparation of this report is detailed in Appendix 1.

2.1.4 This Arboricultural Impact Assessment was based on an assessment of the following supplied documentation/plans only (Appendix 4):

- Cover Page. Rev A. Prepared by ERA Architects. Dated n.d.
- Demolition Plan Prepared by ERA Architects Dated 14.04.2025
- Site and Roof Plan Main Dwelling Prepared by ERA Architects. Dated 14.04.2025
- Site and Roof Plan Detached Cabana Prepared by ERA Architects. Dated 14.04.2025
- Proposed Ground Floor Main Dwelling Prepared by ERA Architects. Dated 14.04.2025
- Proposed Ground Floor Detached Cabana Prepared by ERA Architects. Dated 14.04.2025
- Landscape Plan Prepared by ERA Architects. Dated 14.04.2025
- Erosion and Sediment Control Plan Prepared by ERA architects. Dated 14.04.2025
- Detail Survey. Prepared by Metropolis City Surveyors. Dated 22.08.2024.

2.2 The Proposal

2.2.1 The supplied plans show the shows the demolition of some existing structures and alterations and additions to the existing residential dwelling including construction of a deck, retaining walls, pool, shed, cabana and associated landscaping at 154 Plateau Rd, Bilgola Plateau. The plans also include a garage and demolition of existing structures at the front of the property.

3.0 RESULTS |

3.1 The Site

3.1.1 The site is a rectangular block with a total area stated in the plans as 899.4m^2. The site has a fall from east to west.

3.1.2 The site is bounded by residential properties to the north, south and west with Plateau Road to the east.

3.2 The Trees

3.2.1 A Visual Tree Assessment (VTA) (Mattheck & Breloer, 2003) has been undertaken on trees growing within the site to determine their health and structural condition (Appendix 2). A full VTA of trees located outside of the site boundaries was not undertaken due to limited access. The species and trunk diameter were recorded for the purposes of determining Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) calculations only. The distance of each tree from the site boundary is an approximation due to limited access.

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3.2.2 The Australian Standard 4970: *Protection of Trees on Development Sites* (2009) Clause 2.3.2, requires the allocation of a Tree Retention Value. This value is based on the Useful Life Expectancy (ULE) and Landscape Significance, which considers the tree's health, structural condition and site suitability. The Retention Value does not consider any proposed development works and is not a schedule for tree retention or removal. The trees have been allocated one of the following Retention Values:

- Priority for Retention
- Consider for Retention
- Consider for Removal
- Priority for Removal

3.2.3 The Australian Standard 4970: *Protection of Trees on Development Sites* (2009) also requires the calculation of the Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) for each tree (Appendix 1).

3.2.4 A total of thirty (30) trees were assessed which were a mix of Australian native and exotic species.

3.2.5 A search of the BioNet Atlas of NSW Wildlife Database was undertaken during May 2025. No individual threatened tree species that were listed within this database for the area were identified during the current field investigations of the site. The ecological significance and habitat value of the trees has not been assessed and is beyond the scope of this report.

3.2.6 Trees 1, 2, 3, 4, 7, 9, 10, 11, 12, 13, 14, 17 & 25 were within the site boundary and covered by the council's tree management controls.

3.2.7 Trees 5, 6, 8, 15, 18, 19, 20, 21, 23, 24 & 26 are exempt from the Council's tree management controls.

3.2.8 Trees 16, 22, 27, 28, 29 & 30 were located on adjacent properties. All trees on adjacent properties were allocated a Retention Value of *Priority for Retention*.

4.0 ARBORICULTURAL IMPACT ASSESSMENT |

4.1 Trees 1- 4

4.1.1 Trees 1-4 were identified as *Eucalyptus racemosa* (Scribbly Gum), *Eucalyptus robusta* (Swamp Mahogany), *Callistemon viminalis* (Weeping Bottlebrush), *Acacia* sp. (Wattle), respectively and were allocated Low Landscape Significance Values and Retention Values of *Consider for Removal*, excepting Tree 1 which was assigned a Moderate Landscape Significance Value, and Retention Value of *Priority for Removal*.

4.1.2 Tree 1 was allocated a poor structural rating due to a large cavity at the base of the trunk. The column of decay associated with the cavity is likely to extend above and below the opening. However, internal investigations on the extent of the decay column were beyond the scope of this Report. The main trunk cavity represents a point of structural weakness and given the size of the cavity, poor tree vigour, the species and the likelihood of decay progression, the tree is considered to be structurally compromised and tree removal should be considered from a tree stability and short ULE perspective.

4.1.3 The supplied plans show Trees 2, 3 & 4 are in the footprint of garage and associated work at the front of the property and will need to be removed.

4.1.4 The supplied plans show the proposed demolition of the existing driveway is within the TPZ and SRZ of Tree 1. Works within the SRZ represent a *Major Encroachment* as defined by AS-4970 as root severance within the SRZ can lead to the destabilisation of the tree. The overall TPZ encroachments were estimated to be 34.4% and also represent *Major Encroachments* as defined by AS-4970.

4.1.5 Given the size and location of the encroachment, the long term structural and physiological viability of Tree 1 is highly likely to be compromised by the proposed encroachment and the tree will need to be removed to accommodate the works.

4.1.6 Removal and replacement with healthy advanced size specimens would replace the loss of amenity within a short to medium, timeframe.

4.1.7 Refer to Appendix 5 for further detail.

4.2 Trees 5, 6, 7 & 11

4.2.1 Trees 5, 6, 7 & 11 were identified as *Archontophoenix cunninghamiana* (Bangalow Palm), *Syzygium paniculatum* (Brush Cherry), *Angophora floribunda* (Rough Barked Apple) and *Syzygium australe* (Brush Cherry Lilly Pilly) respectively, were allocated Low Landscape Significance Values and Retention Values of *Consider for Removal or Priority for removal*, excepting Tree 7 which was assigned a High Landscape Significance Value and a Retention Value of *Priority for Retention*.

4.2.2 Tree 5 is exempt from the Council's Tree Management controls based on species and can be removed without Council consent.

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4.2.3 The supplied plans show the proposed planter and residential dwelling are within the TPZs and SRZs of Trees 5, 6, 7 & 11. Works within the SRZ represent a *Major Encroachment* as defined by AS-4970 as root severance within the SRZ can lead to the destabilisation of the tree. The overall TPZ encroachments were estimated to be 56.3%, 61.4%, 25.9% and 14.5% and also represent *Major Encroachments* as defined by AS-4970.

4.2.4 Given the size and location of the encroachments, the long term structural and physiological viability of Trees 5, 6, 7 &11 are highly likely to be compromised by the proposed encroachment and the trees will need to be removed to accommodate the works.

4.2.5 Removal and replacement with healthy advanced size specimens would replace the loss of amenity within a short to medium, timeframe.

4.2.6 Refer to Appendix 5 for further detail.

4.3 **Trees 8 & 10**

4.3.1 Trees 8 & 10 were identified as *Archontophoenix cunninghamiana* (Bangalow Palm) and *Syzygium australe* (Brush Cherry Lilly Pilly), respectively and were allocated Low Landscape Significance Values and Retention Values of *Consider for Removal* and *Consider for Retention*.

4.3.2 Tree 8 is exempt from the Council's Tree Management controls based on species and can be removed without Council consent.

4.3.3 The supplied plans show no works are proposed within the TPZ of Trees 8 & 10. However, TPZ fencing should be installed prior to any site works (including demolition) and remain in place for the duration of the construction. Materials, waste storage and temporary services should not be located within the TPZ fenced area. If works are required within the TPZ fenced area, then they should be supervised by the Project Arborist.

4.3.4 The tree protection measures must be inspected by the Project Arborist prior to the start of site works, including demolition.

4.3.5 Refer to AS4970 and Appendices 5, 6 & 7 for further details.

4.4 **Tree 9**

4.4.1 Tree 9 was identified as *Angophora floribunda* (Rough Barked Apple) and was allocated a High Landscape Significance Value and a Retention Value of *Priority for Retention*.

4.4.2 The supplied plans show the proposed retaining wall and landscaping is within the SRZ of Tree 9. Works within the SRZ represent a *Major Encroachment* as defined by AS-4970 as root severance within the SRZ can lead to the destabilisation of the tree. The overall TPZ encroachment was estimated to be 47.5% and also represents a *Major Encroachment* as defined by AS-4970.

4.4.3 Given the size and location of the encroachment, the long term structural and physiological viability of Tree 9 is highly likely to be compromised by the proposed encroachment and the tree will need to be removed to accommodate the works.

4.4.4 Removal and replacement with a healthy advanced size specimen would replace the loss of amenity within a long timeframe.

4.4.5 Refer to Appendix 5 for further detail.

4.5 **Tree 12**

4.5.1 Tree 12 was identified as *Angophora costata* (Sydney Red Gum) and was allocated a High Landscape Significance Value and a Retention Value of *Consider for Retention*.

4.5.2 The supplied plans show that Tree 12 is within the footprint of the proposed pool and will need to be removed.

4.5.1 The Tree was allocated a poor structural rating due to a large cavity on the main trunk (Appendix 9). The column of decay associated with the cavity is likely to extend above and below the opening. However, internal investigations on the extent of the decay column were beyond the scope of this Report.

4.5.2 A cavity of this size is unlikely to fully occlude, and the prognosis is for further decay over the medium term.

4.5.3 Removal and replacement with a healthy advanced size specimen would replace the loss of amenity within a long timeframe.

4.5.4 Refer to Appendix 5 for further detail.

4.6 **Trees 13, 15 & 17**

4.6.1 Trees 13, 15 & 17 were identified as *Syzygium australe* (Brush Cherry Lilly Pilly) and were allocated Moderate Landscape Significance Values and Retention Values of *Consider for Retention*.

4.6.2 The supplied plans show the proposed cabana works is within the SRZs of Trees 13, 15 & 17. Works within the SRZ represent a *Major Encroachment* as defined by AS-4970 as root severance within the SRZ can lead to the destabilisation of the tree. The overall TPZ encroachments were estimated to be 11.9%, 13.4% and 18.2% respectively, and also represent *Major Encroachments* as defined by AS-4970.

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4.6.3 Given the size and location of the encroachments, the long term structural and physiological viability of Trees 13, 15 & 17 are highly likely to be compromised by the proposed encroachment and the trees will need to be removed to accommodate the works.

4.6.4 Removal and replacement with healthy advanced size specimens would replace the loss of amenity within a short to medium, timeframe.

4.6.5 Refer to Appendix 5 for further detail.

4.7 **Tree 14**

4.7.1 Tree 14 was identified as a *Syzygium australe* (Brush Cherry Lilly Pilly) and was allocated a Moderate Landscape Significance Value and a Retention Value of *Consider for Retention*.

4.7.2 The supplied plans show the proposed development is within the SRZ of Tree 14. Works within the SRZ represent a *Major Encroachment* as defined by AS-4970 as root severance within the SRZ can lead to the destabilisation of the tree. The overall TPZ encroachment is approximately 10%. Works within the SRZ represent a *Major Encroachment* as defined by AS4970. However, Clause 3.3.4 of AS-4970 does allow for major encroachments if tree protection measures are used to minimise negative impacts.

4.7.3 Refer to Appendix 5 for further detail.

4.7.4 TPZ fencing should be installed prior to any site works (including demolition) and remain in place for the duration of the construction. Materials, waste storage and temporary services should not be located within the TPZ fenced area. If works are required within the TPZ fenced area, then they should be supervised by the Project Arborist.

4.7.5 The tree protection measures must be inspected by the Project Arborist prior to the start of site works, including demolition.

4.7.6 Refer to AS4970 and Appendices 5, 6 & 7 for further details.

4.8 **Trees 16, 22, 27, 28, 29 & 30**

4.8.1 Trees 16, 22 & 30 were identified as *Casuarina glauca* (Swamp She Oak) *Cyathea australis* (Rough Tree Fern) and *Syncarpia glomulifera* (Turpentine) and Trees 27, 28 & 29 were identified as *Archontophoenix cunninghamiana* (Bangalow Palm) and were allocated adjusted Retention Values of *Priority for Retention*, given they were located outside of the site.

4.8.2 The Retention Value was adjusted to *Priority for Retention* given it was located outside of the site.

4.8.3 The supplied plans show no works are proposed within the TPZs of Trees 16, 22, 27, 28, 29 & 30. However, TPZ fencing should be installed prior to any site works (including demolition) and remain in place for the duration of the construction. Materials, waste storage and temporary services should not be located within the TPZ fenced area. If works are required within the TPZ fenced area, then they should be supervised by the Project Arborist.

4.8.4 The tree protection measures must be inspected by the Project Arborist prior to the start of site works, including demolition.

4.8.5 Refer to AS4970 and Appendices 5, 6 & 7 for further details.

4.9 **Trees 18, 19 & 21**

4.9.1 Trees 18 & 19 were identified as *Jubaea chilensis* (Chilean wine palm) and Tree 21 as *Persea americana* (Avocado) and were allocated Low Landscape Significance Values and Retention Values of *Consider for Removal*. Trees 18, 19 & 21 are exempt from the Council's Tree Management controls based on species and can be removed without Council consent.

4.9.2 The supplied plans show the proposed cabana works is within the TPZs of Trees 18, 19 & 21. The overall TPZ encroachments were estimated to be 33.8%, 32.8% and 25.5% respectively and also represent *Major Encroachments* as defined by AS-4970.

4.9.3 Given the size and location of the encroachments, the long term structural and physiological viability of Trees 18, 19 & 21 are highly likely to be compromised by the proposed encroachment and the trees will need to be removed to accommodate the works.

4.9.4 Removal and replacement with healthy advanced size specimens would replace the loss of amenity within a short to medium timeframe.

4.9.5 Refer to Appendix 5 for further detail.

4.10 **Tree 20**

4.10.1 Tree 20 was identified as *Jubaea chilensis* (Chilean wine palm) and was allocated a Low Landscape Significance Value and a Retention Value of *Consider for Removal*. This tree is exempt from the Council's Tree Management controls based on species and can be removed without Council consent.

4.10.2 The supplied plans show that Tree 20 is within the footprint of the proposed cabana and will need to be removed.

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4.10.3 Removal and replacement with a healthy advanced size specimen would replace the loss of amenity within a short timeframe.

4.10.4 Refer to Appendix 5 for further detail.

4.11 **Trees 23 & 24**

4.11.1 Trees 23 & 24 were identified as a *Syagrus romanzoffianum* (Cocos Palm) and were allocated a Low Landscape Significance Value and a Retention Value of Consider for Removal.

4.11.2 Trees 23 & 24 are exempt from the Council's Tree Management controls based on species and can be removed without council consent.

4.11.3 The supplied plans show no works are proposed within the TPZ of Trees 23 &24. However, TPZ fencing should be installed prior to any site works (including demolition) and remain in place for the duration of the construction. Materials, waste storage and temporary services should not be located within the TPZ fenced area. If works are required within the TPZ fenced area, then they should be supervised by the Project Arborist.

4.11.4 The tree protection measures must be inspected by the Project Arborist prior to the start of site works, including demolition.

4.11.5 Refer to AS4970 and Appendices 5, 6 & 7 for further details.

4.12 **Trees 25 & 26**

4.12.1 Trees 25 was identified as a *Syzygium australe* (Brush Cherry Lilly Pilly) and Tree 26 was identified as a *Archontophoenix alexandrae* (Alexander Palm). Both were allocated a Low Landscape Significance Value and a Retention Value of Consider for Removal. Tree 26 is exempt from the Council's Tree Management controls based on species and can be removed without council consent.

4.12.2 The supplied plans show the proposed development is within the TPZ of Trees 25 & 26. The overall TPZ encroachment is approximately 4.0% and 13.9% respectively. However, Clause 3.3.4 of AS-4970 does allow for major encroachments if design factors (e.g. tree sensitive construction methods) are used to minimise negative impacts.

4.12.3 Refer to Appendix 5 for further detail.

4.12.4 Given the good physiological condition and species of the tree the proposed development can be accommodated. However, given the size of encroachment the proposal represents a significant risk to the tree's long term structural and physiological viability and therefore the following tree sensitive construction methods and protection measures are carefully implemented under the supervision of the Project Arborist. Significant departures from the detailed tree sensitive construction methods and protection measures are likely to result in a shortened ULE and/or tree removal

4.12.5 TPZ fencing should be installed prior to any site works (including demolition) and remain in place for the duration of the construction. Materials, waste storage and temporary services should not be located within the TPZ fenced area. If works are required within the TPZ fenced area, then they should be supervised by the Project Arborist.

4.12.6 The tree protection measures must be inspected by the Project Arborist prior to the start of site works, including demolition.

4.12.7 Refer to AS4970 and Appendices 5, 6 & 7 for further details.

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4.13 **Removal & Replacement Planting**

4.13.1 Removal works should be carried out by a practising arborist. The practising arborist should hold a minimum qualification equivalent (using Australian Qualifications Framework) of Level 3 or above in arboriculture or its recognised equivalent. The practising arborist should have a minimum of 3 years of practical experience. Pruning/removal works should be undertaken in accordance with the Australian Standard 4373: Pruning of Amenity Trees (2007), Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016) and other applicable legislation and codes.

4.13.2 Replacement tree planting should be provided when trees are removed. Replacement trees should be supplied as advanced size stock to help offset the loss of amenity resultant from the tree removals.

4.13.3 Replacement planting should be supplied in accordance with Australian Standard 2303: Tree Stock for Landscape Use (2015).

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5.0 REFERENCES |

Mattheck & Breloer (2003), *The Body Language of Trees – A Handbook for Failure Analysis*.

NSW Office of Environment and Heritage's Atlas of NSW Wildlife (2011), *BioNet Atlas of NSW Wildlife*.

Standards Australia (2009) Protection of Trees on Development Sites AS4970.

Standards Australia (2007) Pruning of Amenity Trees AS4373.

Standards Australia (2015) Tree Stock for Landscape Use AS2303.

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6.0 APPENDIX 1 | METHODOLOGY

6.1 This report was based on data from a site inspection conducted on the 23.10.24. The recommendations in this report are based on and limited to observations from these site inspections.

6.2 The subject tree(s) was assessed using the Visual Tree Assessment methodology described in *The Body Language of Trees – A Handbook for Failure Analysis* (Mattheck et al., 2003). Subject trees were assessed from the ground only to provide an Arboricultural Impact Assessment and Tree Protection Specification report. No internal diagnostic testing was undertaken as part of this assessment. Trees outside the subject site were assessed from the property boundaries only.

6.3 The dimensions of the subject tree(s) are an approximation only.

6.4 The location of the subject tree(s) was determined from the location plan provided. Trees not shown on this plan have been plotted in their approximate location only.

6.5 Tree Protection Zones & Structural Root Zones for the subject tree(s) was based on methods outlined in Australian Standard 4970: *Protection of Trees on Development Sites* (2009).

6.6 The health of the subject tree(s) was determined by assessing:

- Foliage size and colour
- Pest and disease infestation
- Extension growth
- Crown density
- Deadwood size and volume
- Presence of epicormic growth

6.7 The structural condition of the subject tree(s) was assessed by:

- Visible evidence of structural defects or instability
- Evidence of previous pruning or physical damage

6.8 The Useful Life Expectancy (ULE) is used to estimate a tree's longevity in its growing environment. The ULE is based on a tree's species, health, structural condition and site suitability. The tree(s) has been allocated one of the following ULE categories (modified from Barrell, 2001):

- 40 years +
- 15-40 years
- 5-15 years
- Less than 5 years

6.9 The Landscape Significance is based on a qualitative assessment of a tree's cultural, environmental and aesthetic value. This provides a relative measure of a tree's Landscape Significance and can be used to determine its Retention Value. Trees are rated under the following categories:

- Very High
- High
- Moderate
- Low
- Insignificant

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LANDSCAPE SIGNIFICANCE	DESCRIPTION
VERY HIGH	The subject tree is listed as a Heritage Item under the Local Environmental Plan with a local or state level of significance.
	The subject tree is listed on Council's Significant Tree Register.
	The subject tree is a remnant tree.
HIGH	The subject tree creates a 'sense of place' or is considered 'landmark' tree.
	The subject tree is of local, cultural or historical importance or is widely known.
	The subject tree has been identified by a suitably qualified professional as a species scheduled as a Threatened or Vulnerable Species or forms part of an Endangered Ecological Community associated with the subject site, as defined under the provisions of the Threatened Species Conservation Act 1995 (NSW) or the Environmental Protection and Biodiversity Conservation Act 1999.
	The subject tree is known to provide habitat to a threatened species.
	The subject tree is an excellent representative of the species in terms of aesthetic value.
	The subject tree is of significant size, scale or makes a significant contribution to the canopy cover of the locality.
	The subject tree forms part of the curtilage of a heritage item with a known or documented association with that item.
MODERATE	The subject tree makes a positive contribution to the visual character or amenity of the area.
	The subject tree provides a specific function such as screening or minimising the scale of a building.
	The subject tree has a known habitat value.
	The subject tree is a good representative of the species in terms of aesthetic value.
LOW	The subject tree is an environmental pest species or is exempt under the provisions of the local Council's Tree Management Controls.
	The subject tree makes little or no contribution to the amenity of the locality.
	The subject tree is a poor representative of the species in terms of aesthetic value.
INSIGNIFICANT	The subject tree is declared a Noxious Weed under the Noxious Weeds Act.

The above table was provided by Anna Hopwood of TreeIQ™ and was modified from the Earthscape Criteria for Assessment of Landscape Significance.

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6.10 The Retention Value is based on a tree's ULE and Landscape Significance. The subject tree(s) has been allocated one of the following Retention Values:

- Priority for Retention
- Consider for Retention
- Consider for Removal
- Priority for Removal

<table>
<tr><th rowspan="2">ULE</th><th colspan="5">LANDSCAPE SIGNIFICANCE</th></tr>
<tr><th>VERY HIGH</th><th>HIGH</th><th>MODERATE</th><th>LOW</th><th>INSIGNIFICANT</th></tr>
<tr><td>40 years +</td><td rowspan="2">Priority for Retention</td><td colspan="2">Priority for Retention</td><td rowspan="3">Consider for Removal</td><td rowspan="3">Priority for Removal</td></tr>
<tr><td>15-40 years</td><td>Priority for Retention</td><td>Consider for Retention</td></tr>
<tr><td>5-15 years</td><td colspan="3">Consider for Retention</td></tr>
<tr><td>Less than 5 years</td><td>Consider for Removal</td><td colspan="3">Priority for Removal</td></tr>
</table>

The above table was provided by Anna Hopwood of TreeIQ™

6.11 The Tree Protection Zone (TPZ) is the area above and below ground required to preserve the vigour and long-term viability of the tree. The TPZ is based on scientific research and is generally considered by the arboricultural industry as the area required to provide adequate tree protection during construction. The TPZ is the primary means of protecting trees on development sites (Australian Standard 4970:*Protection of Trees on Development Sites*, 2009).

6.12 Works within the TPZ should be avoided. However, *Minor Encroachments,* defined in AS4970 as less than 10% of the TPZ area, are considered acceptable when it is compensated for elsewhere and contiguous within the TPZ. A *Major Encroachment*, defined in AS4970 as greater than 10% of the TPZ area or within the Structural Root Zone (SRZ), may require root investigations by non-destructive methods and tree sensitive construction methods.

6.13 The TPZ is the area within a circle that is centred on the trunk. The radius of the TPZ is calculated by the following formula:

TPZ= DBH x 12

where

DBH= Diameter at Breast Height (1.4m)

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6.14 The SRZ is the minimum area around the base of the tree required for the tree's stability. The SRZ only relates to tree stability and not the vigour and long-term viability of the tree.

6.15 The SRZ is the area within a circle that is centred on the trunk. The radius of the SRZ is calculated by the following formula:

$$SRZ = (Dx50)^{0.42} \times 0.64$$

where

D= Trunk diameter (m) above the root buttress

6.16 Encroachment into SRZ (i.e. severance of structural roots >25mmØ) may lead to the destabilisation of the tree and the long-term viability must be demonstrated in such cases. This may require root investigations by non-destructive methods.

6.17 For further details on the TPZ and SRZ please refer to Australian Standard 4970: *Protection of Trees on Development Sites* (2009).

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7.0 APPENDIX 2 | TREE ASSESSMENT SCHEDULE

Tree No.	Species	Height (m)	Radial Crown Spread (m)	DBH comb. (mm)	Radial TPZ (m)	TPZ Area (m^2)	Radial SRZ (m)	Health Rating	Structural Rating	Age Class	ULE (years)	L/Sign	Retention Value	Comments	TPZ Encroachment (%)
1	*Eucalyptus racemosa* (Scribbly Gum)	12	8	600	7	163	2.8	Fair	Poor	Senescent	<5	Moderate	*Priority for Removal*	Crown density 50-75%. Small (<25mmø) epicormic growth in moderate volumes. Trunk cavity(s), major. Structures within SRZ.	34.4% (Within SRZ)
2	*Eucalyptus robusta* (Swamp Mahogany)	14	5	300	4	41	2.1	Good	No access to base. No rating.	Semi-mature	5-15	Low	*Consider for Removal*		Within Development Footprint
3	*Callistemon viminalis* (Weeping Bottlebrush)	6	4	71	2	13	1.5	Good	Good	Semi-mature	5-15	Low	*Consider for Removal*		Within Development Footprint
4	*Acacia sp.* (Wattle)	5	3	75	2	13	1.5	Fair	Fair	Late Mature	5-15	Low	*Consider for Removal*	Localised crown death. Crown density 50-75%. Wound(s), early signs of decay. Trunk cavity(s), minor. Borer.	Within Development Footprint
5	*Archontophoenix cunninghamiana* (Bangalow Palm)	8	4	246	3	27	1.9	Good	Fair	Semi-mature	5-15	Low	*Consider for Removal*	Co-dominant inclusions, major. Structures within SRZ.	56.3% (Within SRZ)
6	*Syzygium paniculatum* (Brush Cherry)	4	3	50	2	13	1.5	Good	Good	Semi-mature	5-15	Low	*Consider for Removal*	Crown density 75-95%. Lopped.	Within Development Footprint
7	*Angophora floribunda* (Rough Barked Apple)	20	8	600	7	163	2.8	Fair	Good	Mature	15-40	High	*Priority for Retention*	Crown density 75-95%. Small (<25mmø) epicormic growth in low volumes. Previously crown lifted. Wound(s), no visible sign of decay. Trunk conflict with adjacent structures. Structures within SRZ.	25.9% (Within SRZ)

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Tree No.	Species	Height (m)	Radial Crown Spread (m)	DBH comb. (mm)	Radial TPZ (m)	TPZ Area (m^2)	Radial SRZ (m)	Health Rating	Structural Rating	Age Class	ULE (years)	L/Sign	Retention Value	Comments	TPZ Encroachment (%)
8	*Archontophoenix cunninghamiana* (Bangalow Palm)	6	3	125	2	13	1.5	Good	Good	Semi-mature	5-15	Low	*Consider for Removal*		No Encroachment
9	*Angophora floribunda* (Rough Barked Apple)	22	8	550	7	137	2.7	Fair	Fair	Mature	15-40	High	*Priority for Retention*	Trunk competition Crown density 75-95%. Small (<25mmø) deadwood in moderate volumes. Previously crown lifted. Co-dominant inclusions, major.	47.5% (Within SRZ)
10	*Syzygium australe* (Brush Cherry Lilly Pilly)	6	3	160	2	13	1.6	Good	Fair	Mature	5-15	Moderate	*Consider for Retention*	Crown density 75-95%. Co-dominant inclusions, major.	No Encroachment
11	*Syzygium australe* (Brush Cherry Lilly Pilly)	6	3	325	4	48	2.1	Poor	Fair	Senescent	<5	Low	*Priority for Removal*	Crown density 0-25%. Crown consists mainly of epicormic growth. Co-dominant inclusions, major. Wound(s), no visible sign of decay.	14.5%
12	*Angophora costata* (Sydney Red Gum)	23	10	675	8	206	2.9	Fair	Poor	Late Mature	5-15	High	*Consider for Retention*	Localised crown death. Crown density 50-75%. Small (<25mmø), medium (25-75mmø) & large (>75mmø) deadwood in moderate volumes. Wound(s), advanced stages of decay. Trunk cavity(s), major.	Within Development Footprint
13	*Syzygium australe* (Brush Cherry Lilly Pilly)	6	4	100	2	13	1.5	Good	Good	Mature	5-15	Moderate	*Consider for Retention*	Crown density 75-95%. Structures within SRZ.	11.9% (Within SRZ)
14	*Syzygium australe* (Brush Cherry Lilly Pilly)	6	4	100	2	13	1.5	Good	Good	Mature	5-15	Moderate	*Consider for Retention*		9.3% (Within SRZ)

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Tree No.	Species	Height (m)	Radial Crown Spread (m)	DBH comb. (mm)	Radial TPZ (m)	TPZ Area (m^2)	Radial SRZ (m)	Health Rating	Structural Rating	Age Class	ULE (years)	L/Sign	Retention Value	Comments	TPZ Encroachment (%)
15	*Syzygium australe* (Brush Cherry Lilly Pilly)	4	3	50	2	13	1.5	Good	Good	Mature	5-15	Moderate	*Consider for Retention*	Group of two trees	13.4% (Within SRZ)
16	*Casuarina glauca* (Swamp She Oak)	16	6	325	4	48	2.1							Set back 2 m	No Encroachment
17	*Syzygium australe* (Brush Cherry Lilly Pilly)	6	4	100	2	13	1.5	Good	Good	Mature	5-15	Moderate	*Consider for Retention*		18.2% (Within SRZ)
18	*Jubaea chilensis* (Chilean wine palm)	5	3	300	4	41	2.1	Good	Good	Semi-mature	5-15	Low	*Consider for Removal*		33.8% (Within SRZ)
19	*Jubaea chilensis* (Chilean wine palm)	5	3	300	4	41	2.1	Good	Good	Semi-mature	5-15	Low	*Consider for Removal*		32.8% (Within SRZ)
20	*Jubaea chilensis* (Chilean wine palm)	5	3	300	4	41	2.1	Good	Good	Semi-mature	5-15	Low	*Consider for Removal*		Within Development Footprint
21	*Persea americana* (Avocado)	4	3	71	2	13	1.5	Good	Fair	Semi-mature	5-15	Low	*Consider for Removal*	Lopped with resultant epicormics. Wound(s), early signs of decay.	25.5% (Within SRZ)
22	*Cyathea australis* (Rough Tree Fern)	3	1	50	2	13	1.5								No Encroachment
23	*Syagrus romanzoffianum* (Cocos Palm)	10	4	150	2	13	1.6	Good	Good	Mature	5-15	Low	*Consider for Removal*		No Encroachment

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Tree No.	Species	Height (m)	Radial Crown Spread (m)	DBH comb. (mm)	Radial TPZ (m)	TPZ Area (m^2)	Radial SRZ (m)	Health Rating	Structural Rating	Age Class	ULE (years)	L/Sign	Retention Value	Comments	TPZ Encroachment (%)
24	*Syagrus romanzoffianum* (Cocos Palm)	10	4	150	2	13	1.6	Good	Good	Mature	5-15	Low	*Consider for Removal*		No Encroachment
25	*Syzygium australe* (Brush Cherry Lilly Pilly)	5	4	125	2	13	1.5	Good	Good	Mature	5-15	Low	*Consider for Removal*	Small (<25mmø) epicormic growth in moderate volumes. Structures within SRZ.	4.0% (Within SRZ)
26	*Archontophoenix alexandrae* (Alexander Palm)	6	3	75	2	13	1.5	Fair	Good	Semi-mature	5-15	Low	*Consider for Removal*	Chlorotic foliage.	13.9%
27	*Archontophoenix cunninghamiana* (Bangalow Palm)	7	4	150	2	13	1.6								No Encroachment
28	*Archontophoenix cunninghamiana* (Bangalow Palm)	7	4	150	2	13	1.6								No Encroachment
29	*Archontophoenix cunninghamiana* (Bangalow Palm)	7	4	150	2	13	1.6								No Encroachment
30	*Syncarpia glomulifera* (Turpentine)	18	6	400	5	72	2.3							Set back 6 m	No Encroachment

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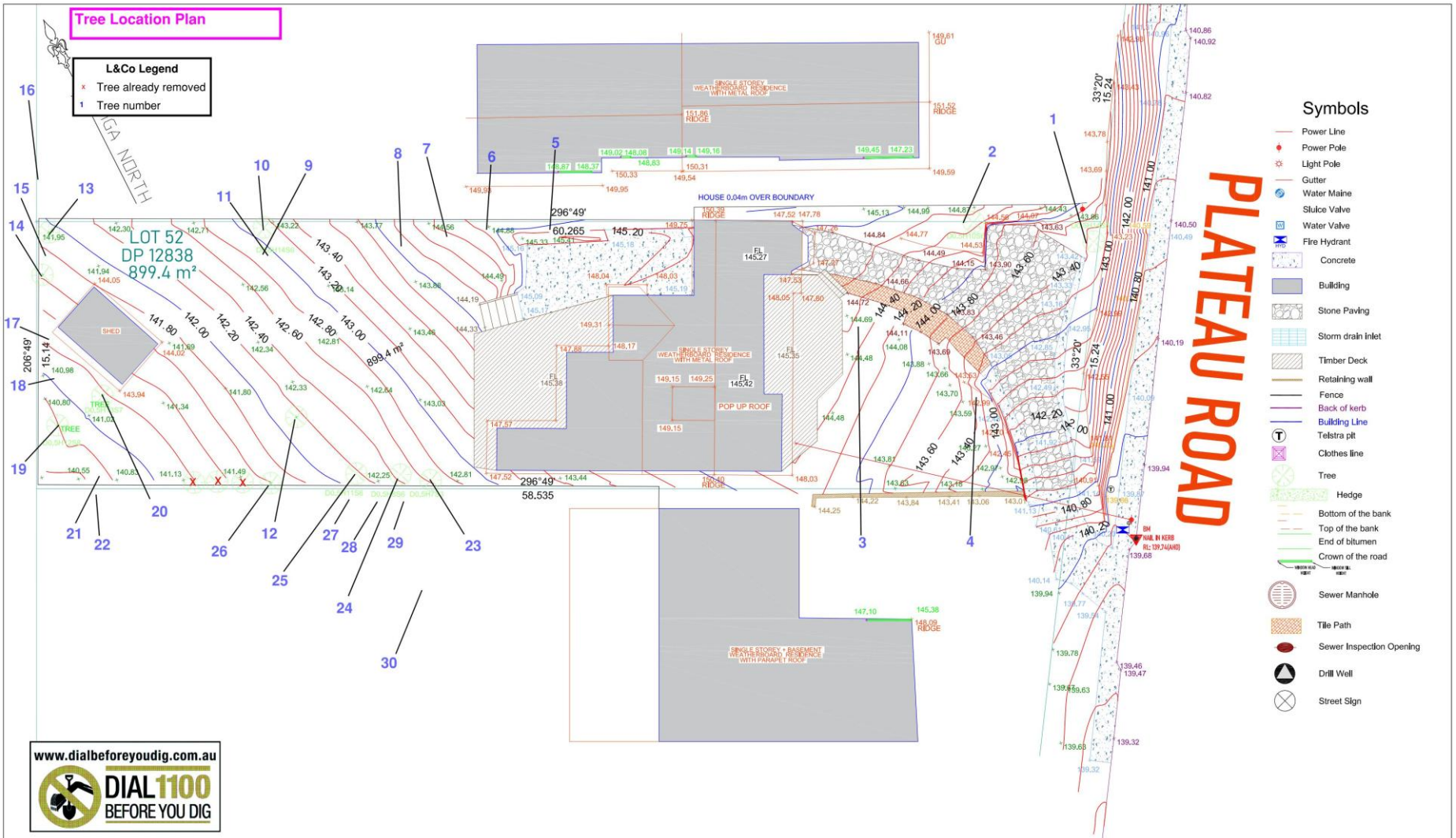
8.0 APPENDIX 3 | TREE LOCATION PLAN



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SURVEYOR REGISTERED UNDER THE
SURVEYING AND SPATIAL INFORMATION ACT, 2002

Datum: **MGA2020**	Surveyor: **N.R.**	Job Ref: **N20512**	JOB DESCRIPTION: DETAIL SURVEY	
Origin: **SSM 35306**	Drawn: **N.R.**	Drawing No: **20-512**	154 PLATEAU ROAD, BILGOLA PLATEAU	
RL: **141.292 AHD**	Checked: **R.C.T.**	Revision No: **D**	LOT 52, DP 12838	
Contour: **0.2**	Date: **22.08.2024**		Client: JANNIS KEARNEY BOTT	
Scale: **1:100**	Sheet: **1of 1**			

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PROPOSED RESIDENTIAL ALTERATIONS AND ADDITIONS AT:

ADDRESS:154 PLATEAU RD
BILGOLA PLATEAU, NSW 2107
LOT:52 | **DP:**12838
SITE AREA:899.4 m²

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LEGEND:
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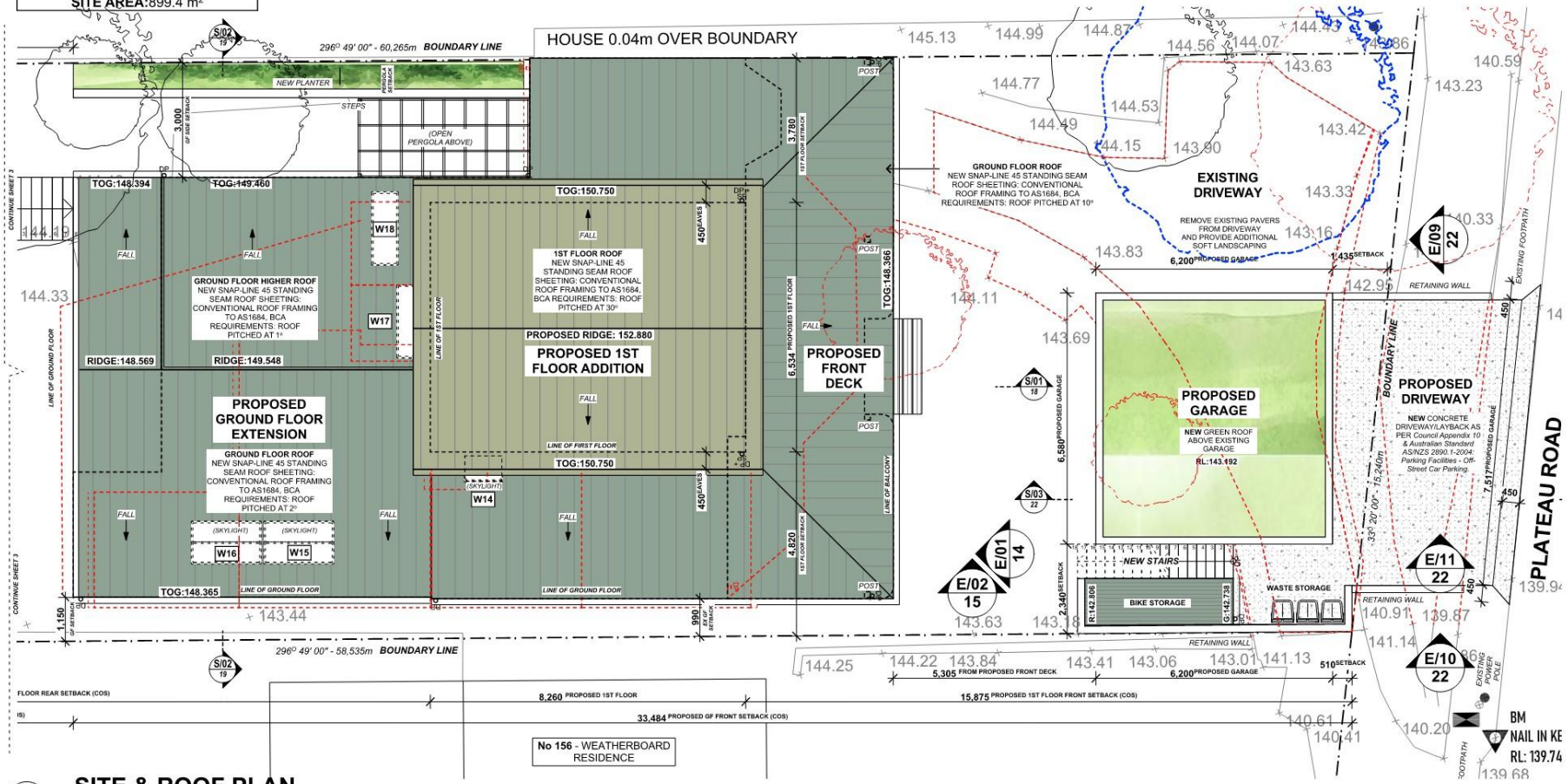
- EXISTING STRUCTURES TO BE DEMLOSHIED
- NEW STRUCTURES TO BE BUILT
- PROPOSED EXTERIOR ALTERATION / ADDITIONS IN COLOUR

**DEMOLITION WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS 2601-2001, The Demoliton of Structures)Part 7.2(1)(a)
ALL SERVICES ARE TO BE DISCONNECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITIES**



2 - SITE & ROOF PLAN (MAIN DWELLING) 1:100

Figured dimensions to be used in preference to scaling this drawing. Do not assume - if in doubt ASK.

Plot Date: Tuesday, 15 April 2025

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REV	DATE	AMENDMENT
A	14.04.25	ISSUE FOR DA - AHUK

DRAWING: SITE & ROOF PLAN (Main Dwelling)

LOT:52 **DP:**12838
154 PLATEAU RD
BILGOLA PLATEAU, NSW 2107

CLIENT: JENNY & JANNIS KEARNEY BOTT
LGA: NORTHERN BEACHES COUNCIL
DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING
JOB No:1962024 | **SHEET SIZE:** A3 | **SHEET No:**2 of 30

PROPOSED RESIDENTIAL ALTERATIONS AND ADDITIONS AT:

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BILGOLA PLATEAU, NSW 2107
LOT:52 | **DP:**12838
SITE AREA:899.4 m²

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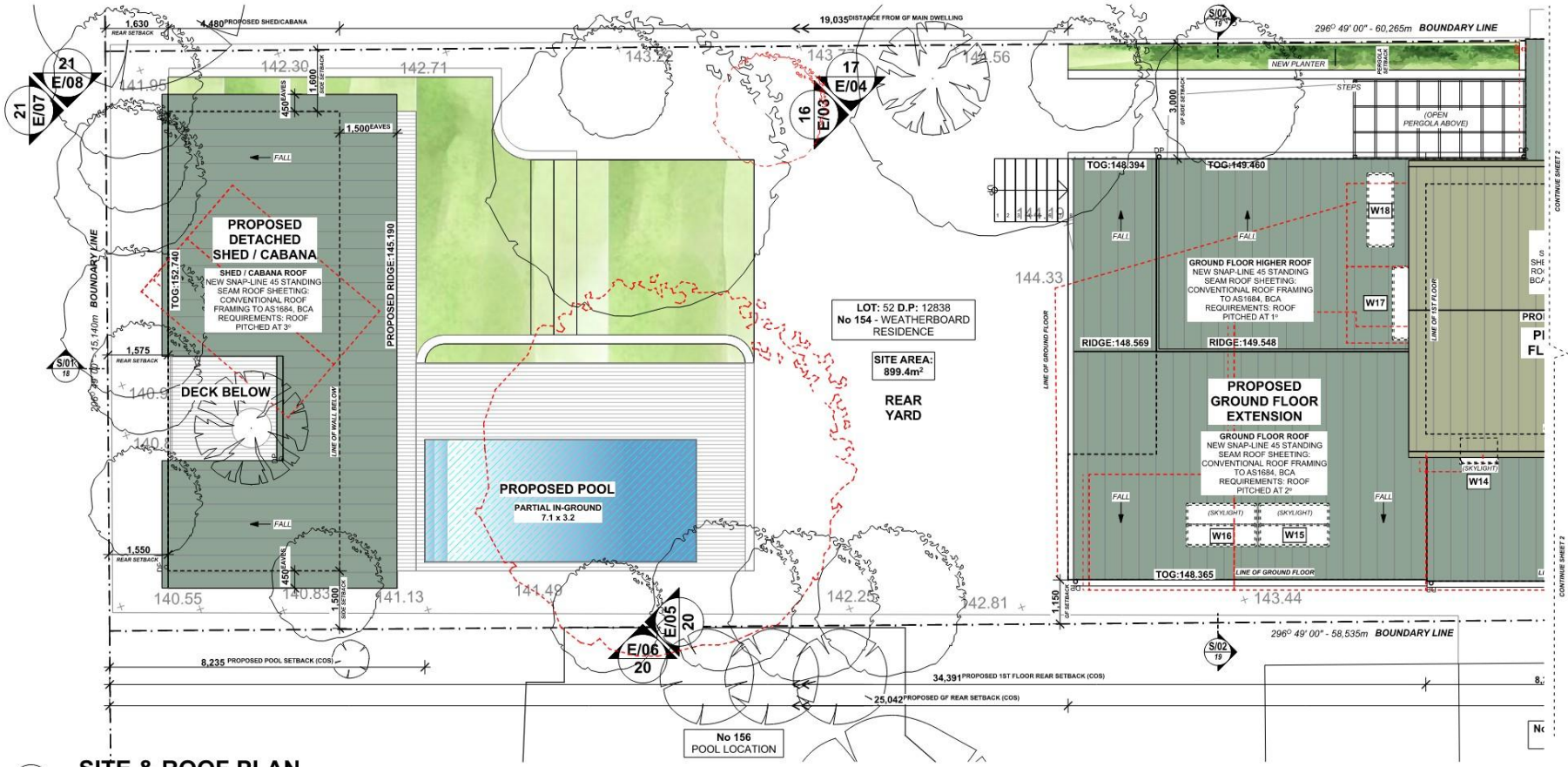
DEMOLITION WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS 2601-2001, The Demoliton of Structures)Part 7.2(1)(a) ALL SERVICES ARE TO BE DISCONNECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITIES



3 - **SITE & ROOF PLAN** *(DETACHED CABANA/SHED)* 1:100

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DRAWING: SITE & ROOF PLAN (Detached Cabana/Shed)

LOT:52 **DP:**12838
154 PLATEAU RD
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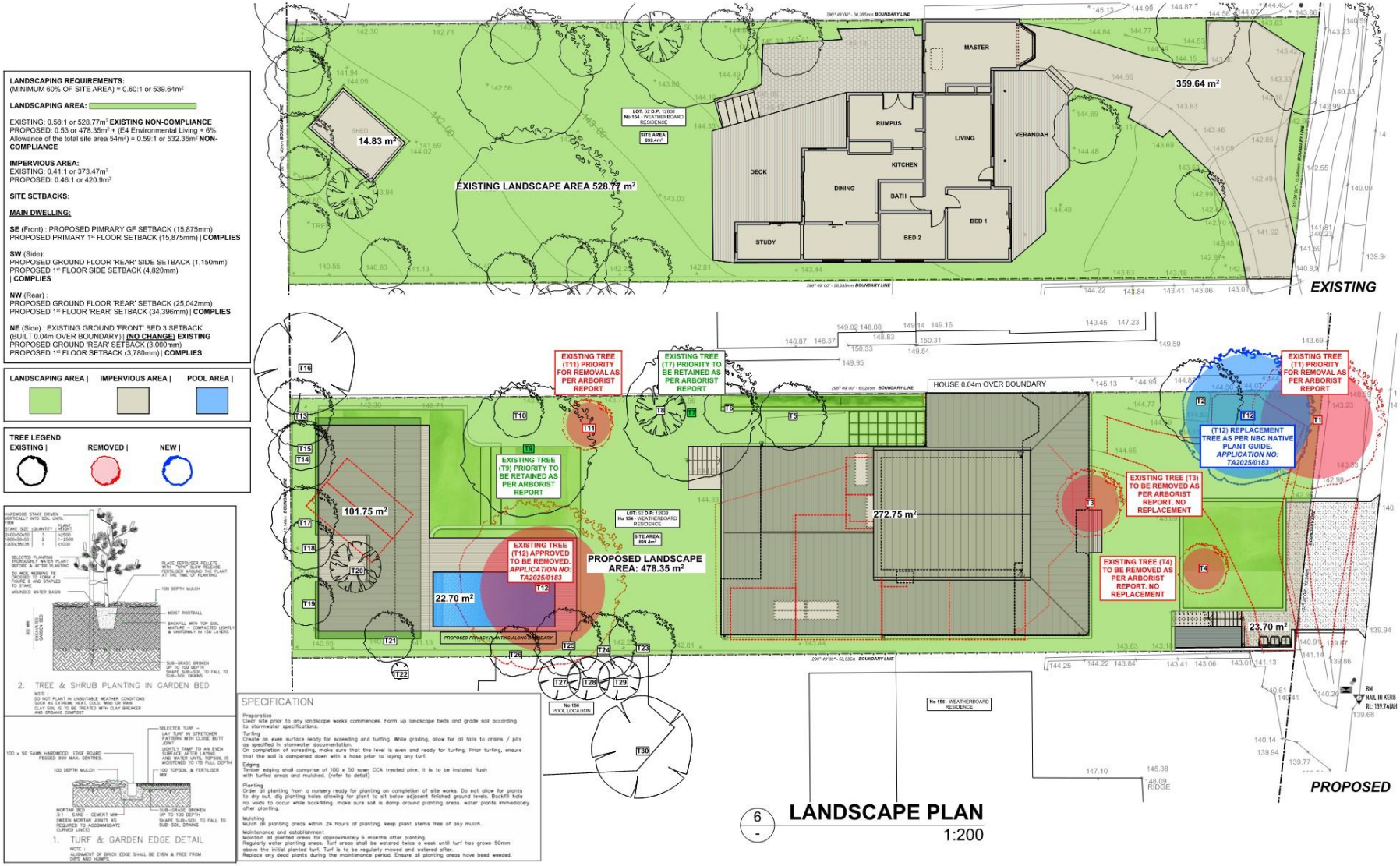
CLIENT: JENNY & JANNIS KEARNEY BOTT
LGA: NORTHERN BEACHES COUNCIL
DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING
JOB No:1962024 | **SHEET SIZE:** A3 | **SHEET No:**3 of 30



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DRAWING: LANDSCAPE PLAN

LOT:52 **DP:**12838
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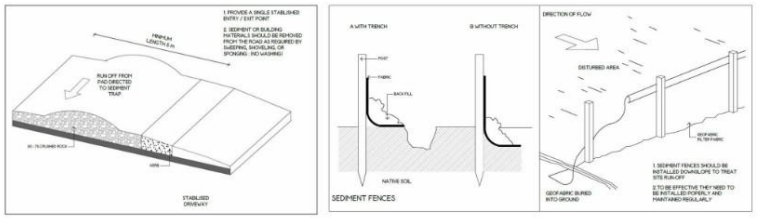
CLIENT: JENNY & JANNIS KEARNEY BOTT		
LGA: NORTHERN BEACHES COUNCIL		
DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING		
JOB No:1962024	**SHEET SIZE:** A3	**SHEET No:**6 of 30



SILTATION NOTES:

1. ALL EROSION AND SILTATION DEVICES ARE TO BE CONSTRUCTED PRIOR TO THE COMMENCMENT OF WORKS.

2. ANY SILT TRAPS ARE TO HAVE DEPOSITED SILT REMOVED FREQUENTLY.

3. INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL INLET PIPES LIKLEY TO COLLECT SILT LADEN WATER TO COUNCILS STANDARDS.

4. NOT WITHSTANDING THE DETAILS SHOWN, IT IS THE REPSONSABILITY OF THE CONTRACTOR TO ENSURE THAT ALL SITE ACTIVITES COMPLY WITH THE CLEAN WATERS ACT.

STORMWATER NOTES:

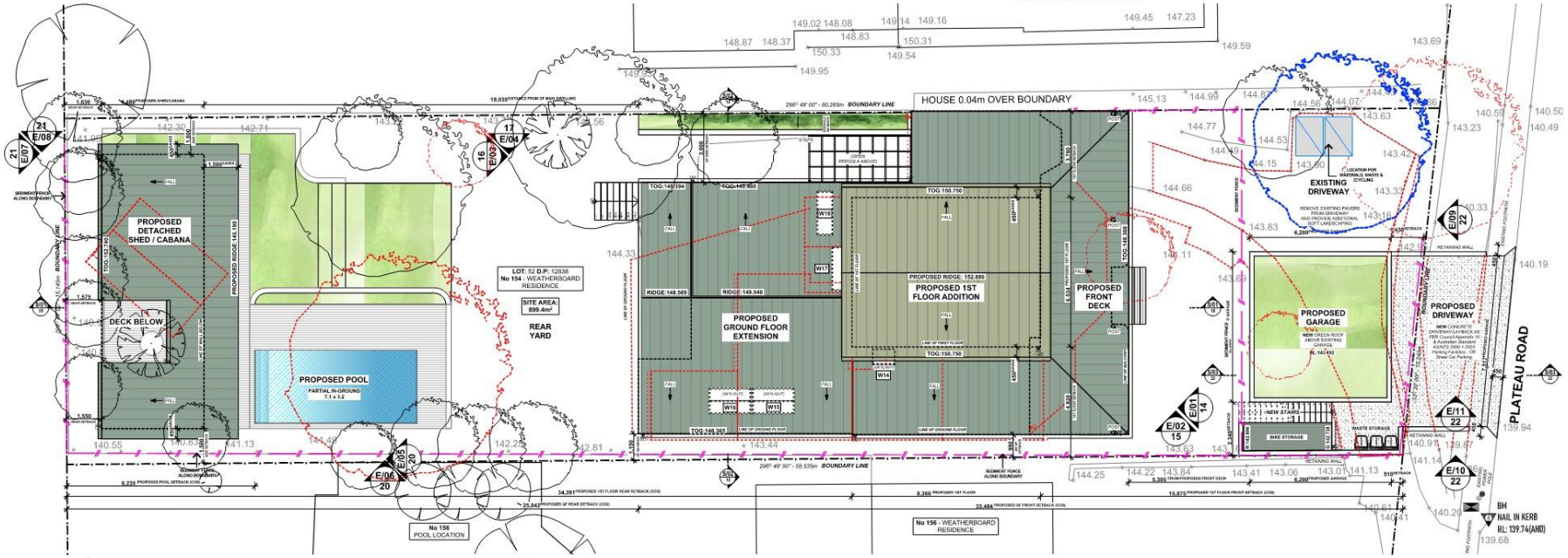
1. LOCATION OF PIPING IS DIAGRAMTIC ONLY. EXACT LOCATION TO BE DETERMINED ON SITE. CHECK ALL LEVELS PROIR TO THE COMMENCMENT OF WORK AND REPORT ANY DISCREPENCIES TO THE ARCHITECT.

2. PIPES SHALL NOT COME INTO CONTACT WITH OTHER SERVICES OR BUILDING STRUCTURES.CO-ORDINATE WITH EACH RESPECTIVE TRADE PRIOR TO INSTALLATION AND REPORT ANY DISCREPENCIES TO THE ARCHITECT.

3. THIS DRAWING IS TO BE READ IN CONJUCTION WITH THE ARCHITECTURAL PLANS. ANY DISCREPENCIES ARE TO BE REPORTED TO THE ARCHITECT IMMEDIATLEY.

4. ALL LEVELS AND DIEMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.

5. STORMWATER AND SUB-SOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL COUNCIL REQUIREMENTS. ALL PIPES TO HAVE A MINIMUM 150mm COVER IF LOCATED WITHIN THE PROPERTY.



SEDIMENT FENCE

STORMWATER NOTE:
STORMWATER AS PER HYDRAULICS ENGINEER'S PLANS AND BASIX REQUIREMENTS ALL IN ACCORDANCE WITH AUSTRALIAN STANDARD 3500.3 BCA & COUNCIL CODES.

7 / - ERROSION & SEDIMENT CONTROL PLAN

SCALE: N/A

Figured dimensions to be used in preference to scaling this drawing. Do not assume - if in doubt ASK.

Plot Date: Tuesday, 15 April 2025

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DRAWING: ERROSION & SEDIMENT CONTROL PLAN

LOT:52 **DP:**12838
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BILGOLA PLATEAU, NSW 2107

CLIENT: JENNY & JANNIS KEARNEY BOTT
LGA: NORTHERN BEACHES COUNCIL
DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING
JOB No:1962024 **SHEET SIZE:** A3 **SHEET No:**7 of 30

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LEGEND:

- EXISTING STRUCTURES TO REMAIN
- EXISTING STRUCTURES TO BE DEMLOSHIED
- EXISTING FLOOR STRUCTURE TO BE DEMOLISHED

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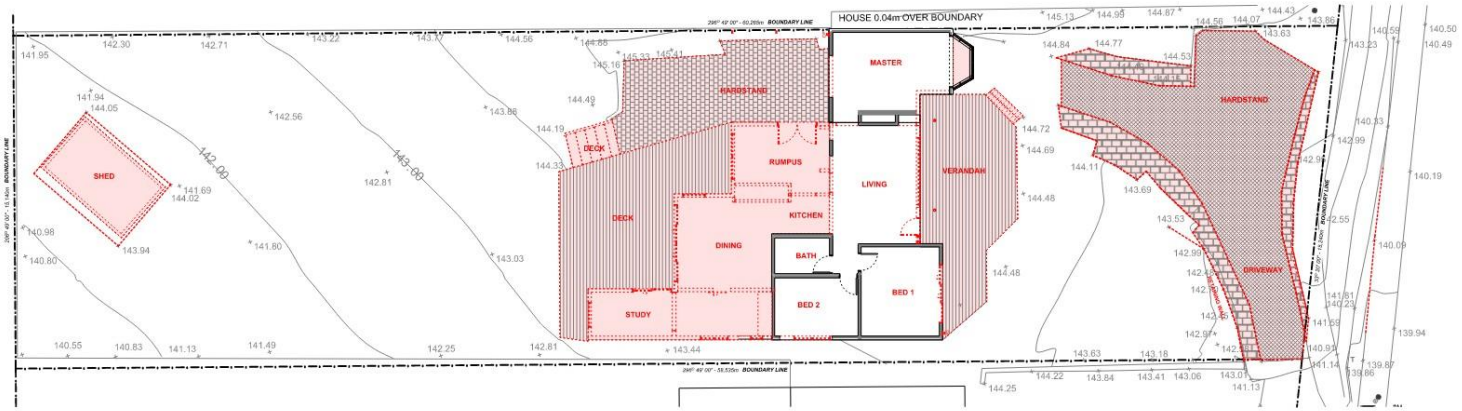
ASBESTOS NOTE:

THE BUILDER SHALL GIVE NOTICE IMMEDIATELY IF ASBESTOS IS FOUND ON SITE. ASBESTOS REMOVAL MUST ONLY BE UNDERTAKEN BY SUITABLY QUALIFIED BUILDERS IN ACCORDANCE WITH THE AUSTRALIAN WORK, HEALTH AND SAFETY STRATEGY 201-2022 NATIONAL OCCUPATIONAL HEALTH AND SAFETY STRATEGY 2002-2012 AND TO THE MOST CURRENT COUNCIL'S ASBESTOS POLICY. IF ASBESTOS IS FOUND AN "ASBESTOS REMOVAL" SIGNAGE MUST BE DISPLAYED AND NEIGHBORHOODS NOTIFIED IN ACCORDANCE TO DA CONDITIONS. ASBESTOS SIGNAGE MUST BE ERECTED AND DISPLAYED IN A PROMINENT POSITION.

ANY LEAD PAINT REMOVAL REQUIRED: SHOULD IMPLEMENT SAFE PAINT AND ASBESTOS WORK PRACTICES. PAINT REMOVER HAS A DUTY TO THE COMMUNITY, CLIENT, EMPLOYEES AND THEIMSELVES TO FAITHFULLY IMPLEMENT THE REQUIREMENTS OF AS/NZS GUIDE TO HAZARDOUS PAINT MANAGEMENT AND THE ADDITIONAL REQUIREMENTS OF LOCAL AGENCIES WITH RESPONSIBILITIES FOR THE ENVIRONMENT, WASTE DISPOSAL, PUBLIC HEALTH AND WORKPLACE HEALTH AND SAFETY.



WASTE MANAGEMENT:

OBJECTIVES

TO ENSURE THAT NECESSARY MEASURES ARE EMPLOYED ON THE SITE THAT PROTECT BOTH THE NEIGHBOURHOOD AMENITY AND THE SURROUNDING ENVIRONMENT AND MINIMISE SITE DEGRADATION. THE RECYCLING OF MATERIALS WILL REDUCE TIPPING COSTS.

REFER TO WASTE MANAGEMENT PLAN REPORT.

RESPONSIBILITY

THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ALL WORKS CARRIED OUT ON THE SITE. THIS INCLUDES ASSUMING RESPONSIBLITY FOR THE ACTIONS OF ALL THE SUBCONTRACTORS AS WELL AS ADVISING THEM OF COUNCIL'S REQUIREMENTS WHEN CARRYING OUT THE WORK.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE VIEWED ALL APPROVED PLANS PRIOR TO THE COMMENCEMENT OF DEMOLITION, EARTHWORKS AND CONSTRUCTION WORKS.

CONTAINMENT OF SITE WASTE

BUILDING MATERIALS MUST NOT BE BURIED ON SITE. DEMOLITION WASTE RESULTING FROM THE WORKS IS NOT TO BE STORED ON FOOTPATHS, STREET GUTTERS OR ROADWAYS ETC. ALL WASTE TO BE PLACED IN RUBBISH SKIPS, OR CONTAINERS FOR COLLECTION.

COUNCIL PROPERTY

COUNCIL PROPERTY IS NOT TO BE USED FOR CONSTRUCTION OR STORAGE ACTIVITIES UNLESS PRIOR WRITTEN APPROVAL HAS BEEN OBTAINED. COUNCIL PROPERTY IS NOT TO BE DAMAGED AND IS TO BE KEPT IN A CLEAN, SAFE AND FUNCTIONAL CONDITION BEFORE, DURING AND ON COMPLETION OF THE WORKS.

SHOULD ANY COUNCIL PROPERTY INCLUDING FOOTPATHS BE INADVERTENTLY DAMAGED AS A RESULT OF THE WORKS, COUNCIL MUST BE NOTIFIED IMMEDIATELY.

BUILDING MATERIAL STOCKPILE

AT NO TIME MAY BUILDING MATERIALS OR STOCKPILES BE SITUATED ON A PUBLIC RESERVE, ROAD GUTTER OR FOOTPATH, THIS INCLUDES BUILDING OR DEMOLITION MATERIAL, WASTE CONTAINERS, PROTABLE SHEDS, PORTABLE TOILETS AND THE LIKE.

ALL BUILDING MATERAILS ARE TO BE STORED WITHIN THE SUBJECT SITE. ALL LOOSE MATERIAL TO BE COVERED WITH TARPAULINS.

A SUFFICIENT AREA MUST BE ALLOCATED WITHIN THE SITE FOR SUCH STORAGE OF BUILDING MATERIALS, DEMOLITION WASTE, WASTE CONTAINERS ETC. AS REQUIRED. THE FEASIBILITY OF THE NOMINATED SITE FOR THE STOCKPILE MUST BE CONFIRMED PRIOR TO COMMENCEMENT.

VEHICLE MOVEMENTS

ALL VEHICLES VISITING THE SITE ARE TO COMPLY WITH THE PARKING REGULATIONS IN THE AREA.

ALL TRUCKS AND UTILITIES MUST COVER THEIR LOADS. NO VEHICLE VISITING THE SITE IS TO IMPEDE LOCAL AREA TRAFFIC FLOWS.

DUST CONTROL

APPROPRIATE METHODS ARE TO BE USED TO PREVENT WIND BLOWN DUST CREATING AN UNACCEPTABLE HAZARD OR NUISANCE ON THE SITE OR ADJOINING PROPERTIES. WHERE DUST IS CREATED AS A RESULT OF THE WORKS. MINIMISE DUST & KEEP THE AREA TIDY AT ALL TIMES.

HAZARDOUS MATERIALS

ASBESTOS CEMENT SHEETING IF ENCOUNTERED IS TO BE WRAPPED TIGHTLY IN PLASTIC TO COMPLY WITH THE AUSTRALIAN STANDARD AND WORK COVER AUTHORITIES REQUIREMENTS AND TAKEN TO AN APPROVED LANDFILL TIP.

8 - DEMOLITION / WASTE MANAGEMENT PLAN

1:200

Figured dimensions to be used in preference to scaling this drawing. Do not assume - if in doubt ASK.

Plot Date: Tuesday, 15 April 2025

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DRAWING: DEMOLITION PLAN

LOT:52 **DP:**12838
154 PLATEAU RD
BILGOLA PLATEAU, NSW 2107

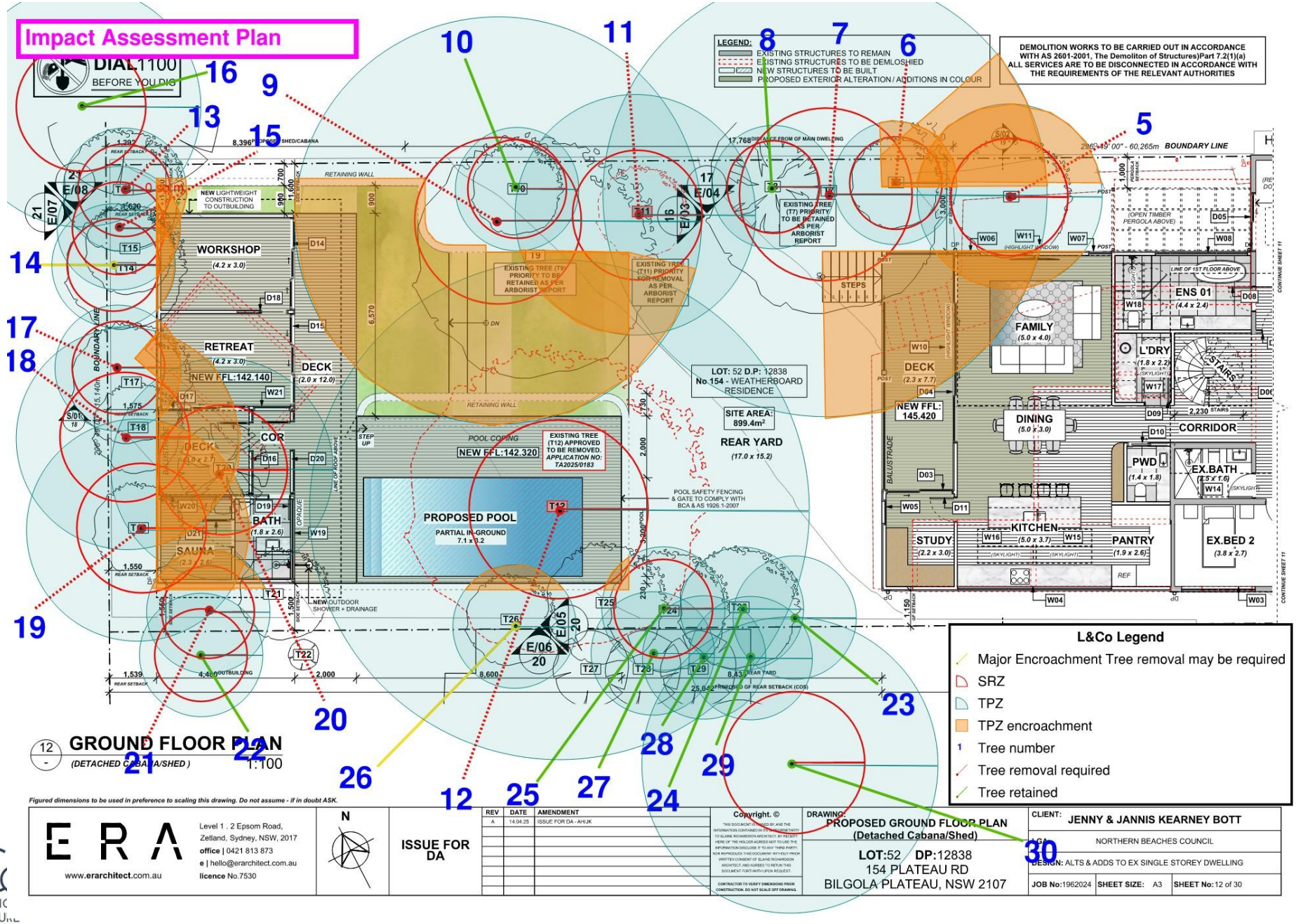
CLIENT: JENNY & JANNIS KEARNEY BOTT

LGA: NORTHERN BEACHES COUNCIL

DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING

JOB No:1962024 **SHEET SIZE:** A3 **SHEET No:**8 of 30

10.0 APPENDIX 5 | ARBORICULTURAL IMPACT ASSESSMENT PLANS



L&C CONSULTANC ARBORICULTUR PLANT PATHOLOGY

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0404 282 825
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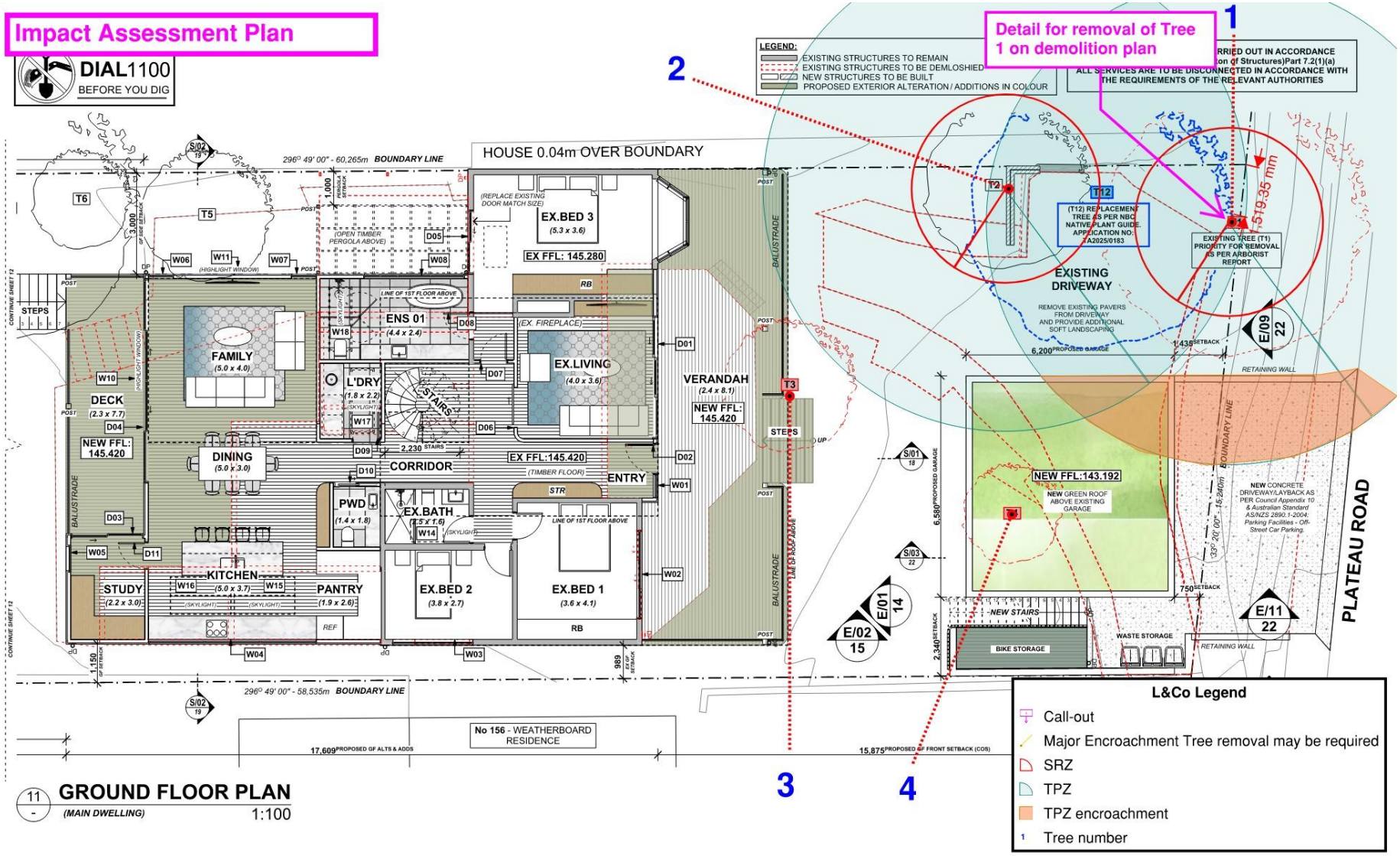
Impact Assessment Plan



11 - **GROUND FLOOR PLAN** *(MAIN DWELLING)* 1:100

Figured dimensions to be used in preference to scaling this drawing. Do not assume - if in doubt ASK.

Plot Date: Tuesday, 15 April 2025

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A	14.04.25	ISSUE FOR DA - AHJK

DRAWING: PROPOSED GROUND FLOOR PLAN (Main Dwelling)

LOT:52 **DP:**12838
154 PLATEAU RD
BILGOLA PLATEAU, NSW 2107

CLIENT: JENNY & JANNIS KEARNEY BOTT
LGA: NORTHERN BEACHES COUNCIL
DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING
JOB No:1962024 **SHEET SIZE:** A3 **SHEET No:**11 of 30

Impact Assessment Plan

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DIAL1100
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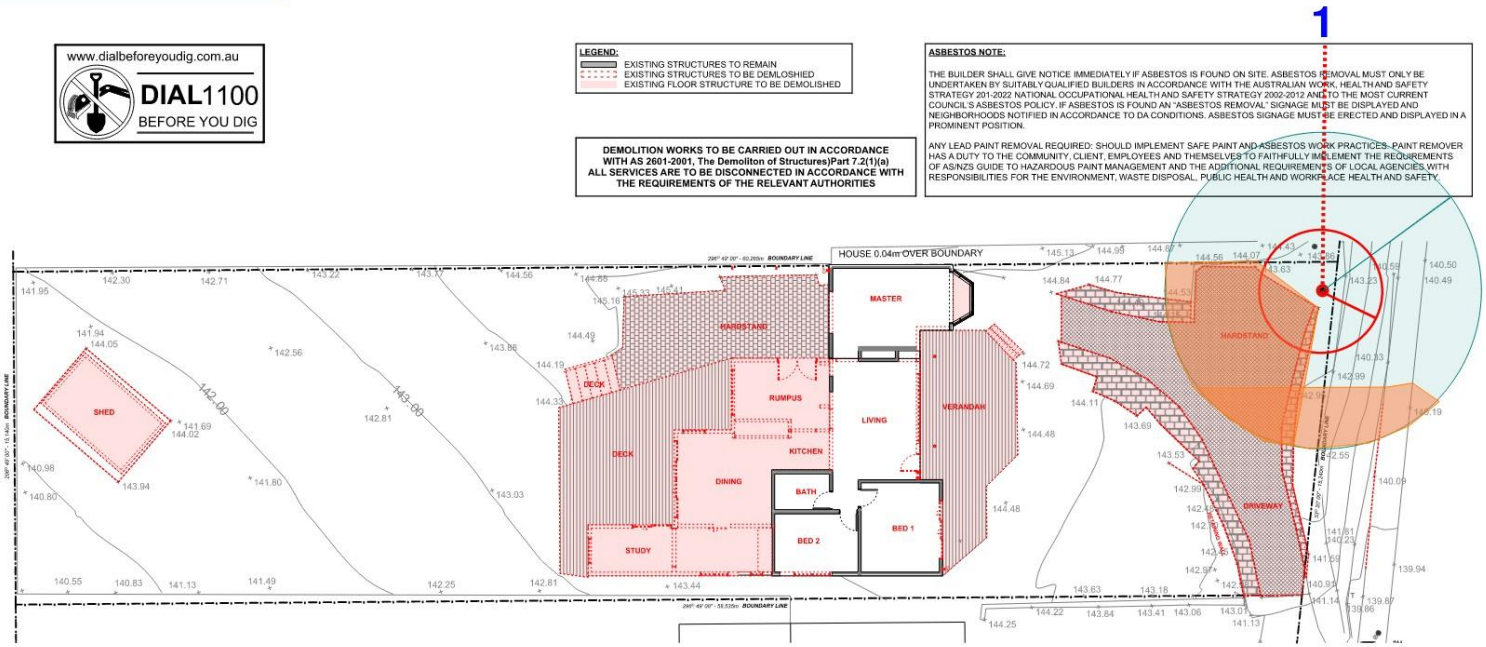
LEGEND:
- EXISTING STRUCTURES TO REMAIN
- EXISTING STRUCTURES TO BE DEMLOSHIED
- EXISTING FLOOR STRUCTURE TO BE DEMOLISHED

DEMOLITION WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS 2601-2001, The Demoliton of Structures)Part 7.2(1)(a) ALL SERVICES ARE TO BE DISCONNECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITIES

ASBESTOS NOTE:

THE BUILDER SHALL GIVE NOTICE IMMEDIATELY IF ASBESTOS IS FOUND ON SITE. ASBESTOS REMOVAL MUST ONLY BE UNDERTAKEN BY SUITABLY QUALIFIED BUILDERS IN ACCORDANCE WITH THE AUSTRALIAN WORK, HEALTH AND SAFETY STRATEGY 201-2022 NATIONAL OCCUPATIONAL HEALTH AND SAFETY STRATEGY 2002-2012 AND TO THE MOST CURRENT COUNCIL'S ASBESTOS POLICY. IF ASBESTOS IS FOUND AN "ASBESTOS REMOVAL" SIGNAGE MUST BE DISPLAYED AND NEIGHBORHOODS NOTIFIED IN ACCORDANCE TO DA CONDITIONS. ASBESTOS SIGNAGE MUST BE ERECTED AND DISPLAYED IN A PROMINENT POSITION.

ANY LEAD PAINT REMOVAL REQUIRED: SHOULD IMPLEMENT SAFE PAINT AND ASBESTOS WORK PRACTICES. PAINT REMOVER HAS A DUTY TO THE COMMUNITY, CLIENT, EMPLOYEES AND THEMSELVES TO FAITHFULLY IMPLEMENT THE REQUIREMENTS OF AS/NZS GUIDE TO HAZARDOUS PAINT MANAGEMENT AND THE ADDITIONAL REQUIREMENTS OF LOCAL AGENCIES,WITH RESPONSIBILITIES FOR THE ENVIRONMENT, WASTE DISPOSAL, PUBLIC HEALTH AND WORKPLACE HEALTH AND SAFETY.



WASTE MANAGEMENT:

OBJECTIVES

TO ENSURE THAT NECESSARY MEASURES ARE EMPLOYED ON THE SITE THAT PROTECT BOTH THE NEIGHBOURHOOD AMENITY AND THE SURROUNDING ENVIRONMENT AND MINIMISE SITE DEGRADATION. THE RECYCLING OF MATERIALS WILL REDUCE TIPPING COSTS.

REFER TO WASTE MANAGEMENT PLAN REPORT.

RESPONSIBILITY

THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ALL WORKS CARRIED OUT ON THE SITE. THIS INCLUDES ASSUMING RESPONSIBLITY FOR THE ACTIONS OF ALL THE SUBCONTRACTORS AS WELL AS ADVISING THEM OF COUNCIL'S REQUIREMENTS WHEN CARRYING OUT THE WORK.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE VIEWED ALL APPROVED PLANS PRIOR TO THE COMMENCEMENT OF DEMOLITION, EARTHWORKS AND CONSTRUCTION WORKS.

CONTAINMENT OF SITE WASTE

BUILDING MATERIALS MUST NOT BE BURIED ON SITE. DEMOLITION WASTE RESULTING FROM THE WORKS IS NOT TO BE STORED ON FOOTPATHS, STREET GUTTERS OR ROADWAYS ETC. ALL WASTE TO BE PLACED IN RUBBISH SKIPS, OR CONTAINERS FOR COLLECTION.

COUNCIL PROPERTY

COUNCIL PROPERTY IS NOT TO BE USED FOR CONSTRUCTION OR STORAGE ACTIVITIES UNLESS PRIOR WRITTEN APPROVAL HAS BEEN OBTAINED. COUNCIL PROPERTY IS NOT TO BE DAMAGED AND IS TO BE KEPT IN A CLEAN, SAFE AND FUNCTIONAL CONDITION BEFORE, DURING AND ON COMPLETION OF THE WORKS.

SHOULD ANY COUNCIL PROPERTY INCLUDING FOOTPATHS BE INADVERTENTLY DAMAGED AS A RESULT OF THE WORKS, COUNCIL MUST BE NOTIFIED IMMEDIATELY.

BUILDING MATERIAL STOCKPILE

AT NO TIME MAY BUILDING MATERIALS OR STOCKPILES BE SITUATED ON A PUBLIC RESERVE, ROAD GUTTER OR FOOTPATH, THIS INCLUDES BUILDING OR DEMOLITION MATERIAL, WASTE CONTAINERS, PROTABLE SHEDS, PORTABLE TOILETS AND THE LIKE.

ALL BUILDING MATERAILS ARE TO BE STORED WITHIN THE SUBJECT SITE. ALL LOOSE MATERIAL TO BE COVERED WITH TARPAULINS.

A SUFFICIENT AREA MUST BE ALLOCATED WITHIN THE SITE FOR SUCH STORAGE OF BUILDING MATERIALS, DEMOLITION WASTE, WASTE CONTAINERS ETC. AS REQUIRED. THE FEASIBILITY OF THE NOMINATED SITE FOR THE STOCKPILE MUST BE CONFIRMED PRIOR TO COMMENCEMENT.

VEHICLE MOVEMENTS

ALL VEHICLES VISITING THE SITE ARE TO COMPLY WITH THE PARKING REGULATIONS IN THE AREA.

ALL TRUCKS AND UTILITIES MUST COVER THEIR LOADS. NO VEHICLE VISITING THE SITE IS TO IMPEDE LOCAL AREA TRAFFIC FLOWS.

DUST CONTROL

APPROPRIATE METHODS ARE TO BE … DUST CREATING AN UNACCEPTABLE … SITE OR ADJOINING PROPERTIES. WI… RESULT OF THE WORKS. MINIMISE DU… ALL TIMES.

HAZARDOUS MATERIALS

ASBESTOS CEMENT SHEETING IF ENCOUNTERED IS TO BE WRAPPED TIGHTLY IN PLASTIC TO COMPLY WITH THE AUSTRALIAN STANDARD AND WORK COVER AUTHORITIES REQUIREMENTS AND TAKEN TO AN APPROVED LANDFILL TIP.

L&Co Legend
- Major Encroachment Tree removal may be required
- SRZ
- TPZ
- TPZ encroachment
- 1 Tree number
- Tree removal required
- Tree retained

8 - DEMOLITION / WASTE MANAGEMENT PLAN
1:200

Figured dimensions to be used in preference to scaling this drawing. Do not assume - if in doubt ASK.

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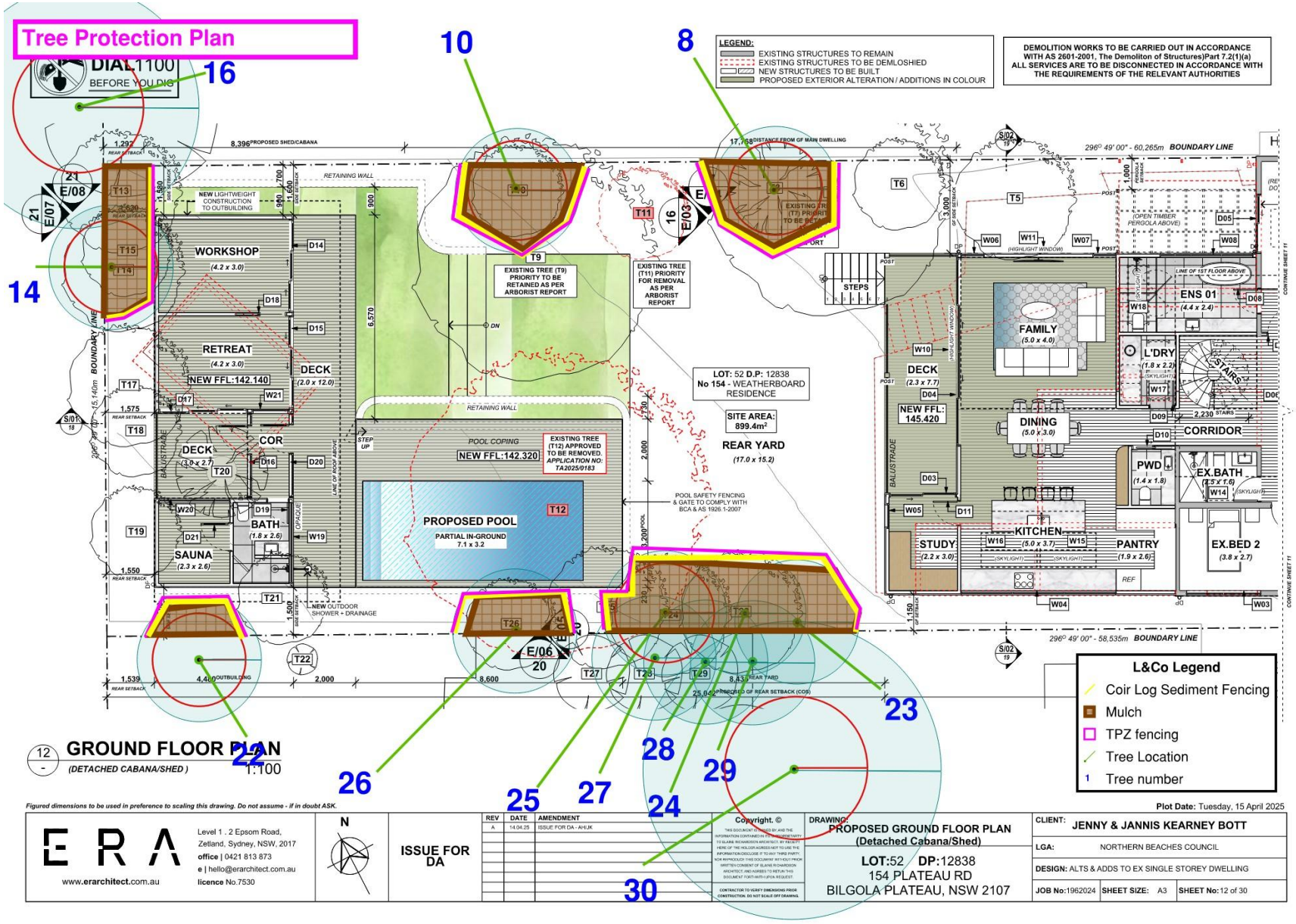
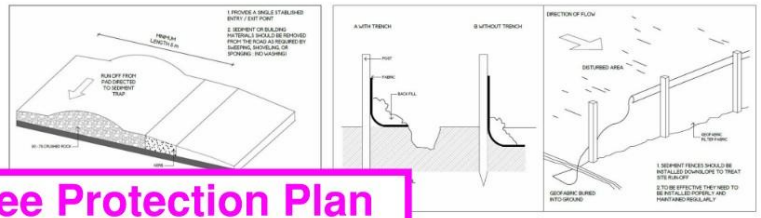
DRAWING: DEMOLITION PLAN

LOT:52 **DP:**12838
154 PLATEAU RD
BILGOLA PLATEAU, NSW 2107

CLIENT: JENNY & JANNIS KEARNEY BOTT
LGA: NORTHERN BEACHES COUNCIL
DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING
JOB No:1962024 **SHEET SIZE:** A3 **SHEET No:**8 of 30

11.0 APPENDIX 6 | TREE PROTECTION PLAN





SILTATION NOTES:

1. ALL EROSION AND SILTATION DEVICES ARE TO BE CONSTRUCTED PRIOR TO THE COMMENCMENT OF WORKS.

2. ANY SILT TRAPS ARE TO HAVE DEPOSITED SILT REMOVED FREQUENTLY.

3. INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL INLET PIPES LIKLEY TO COLLECT SILT LADEN WATER TO COUNCILS STANDARDS.

4. NOT WITHSTANDING THE DETAILS SHOWN, IT IS THE REPSONSABILITY OF THE CONTRACTOR TO ENSURE THAT ALL SITE ACTIVITES COMPLY WITH THE CLEAN WATERS ACT.

STORMWATER NOTES:

1. LOCATION OF PIPING IS DIAGRAMTIC ONLY. EXACT LOCATION TO BE DETERMINED ON SITE. CHECK ALL LEVELS PROIR TO THE COMMENCMENT OF WORK AND REPORT ANY DISCREPENCIES TO THE ARCHITECT.

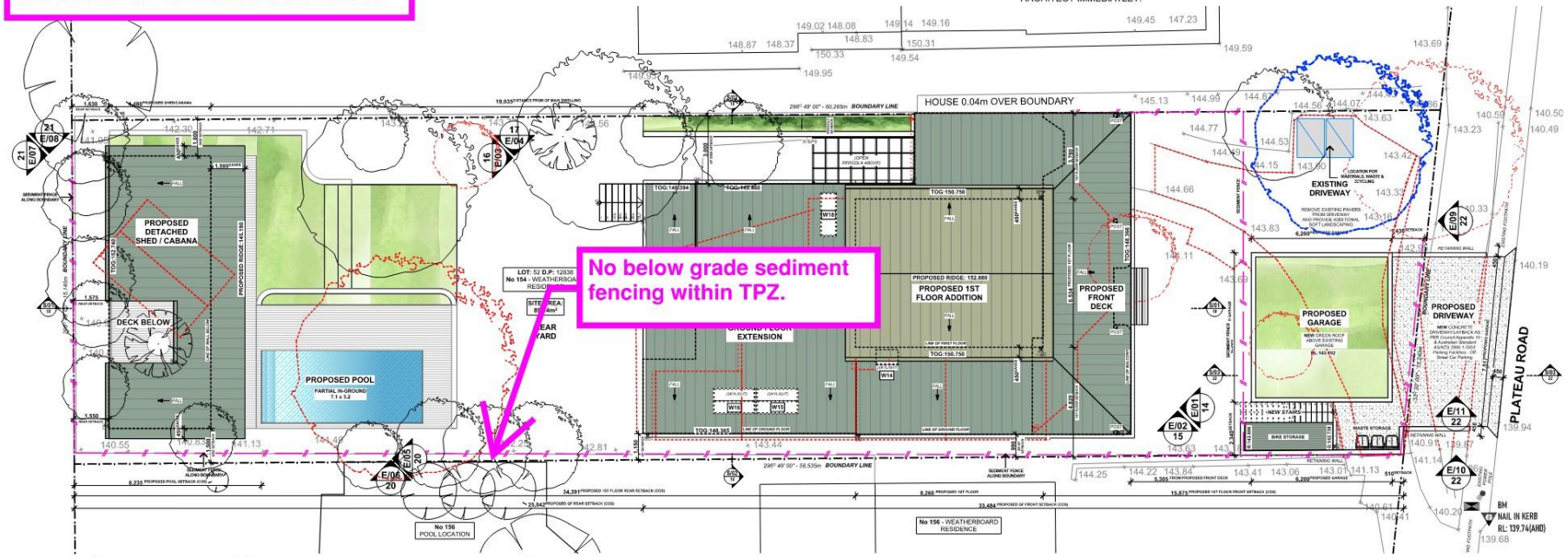
2. PIPES SHALL NOT COME INTO CONTACT WITH OTHER SERVICES OR BUILDING STRUCTURES.CO-ORDINATE WITH EACH RESPECTIVE TRADE PRIOR TO INSTALLATION AND REPORT ANY DISCREPENCIES TO THE ARCHITECT.

3. THIS DRAWING IS TO BE READ IN CONJUCTION WITH THE ARCHITECTURAL PLANS. ANY DISCREPENCIES ARE TO BE REPORTED TO THE ARCHITECT IMMEDIATLEY.

4. ALL LEVELS AND DIEMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.

5. STORMWATER AND SUB-SOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL COUNCIL REQUIREMENTS. ALL PIPES TO HAVE A MINIMUM 150mm COVER IF LOCATED WITHIN THE PROPERTY.

Tree Protection Plan



7 - ERROSION & SEDIMENT CONTROL PLAN

SCALE: N/A

Figured dimensions to be used in preference to scaling this drawing. Do not assume - if in doubt ASK.

Plot Date: Tuesday, 15 April 2025

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A	14.04.25	ISSUE FOR DA - AHJK

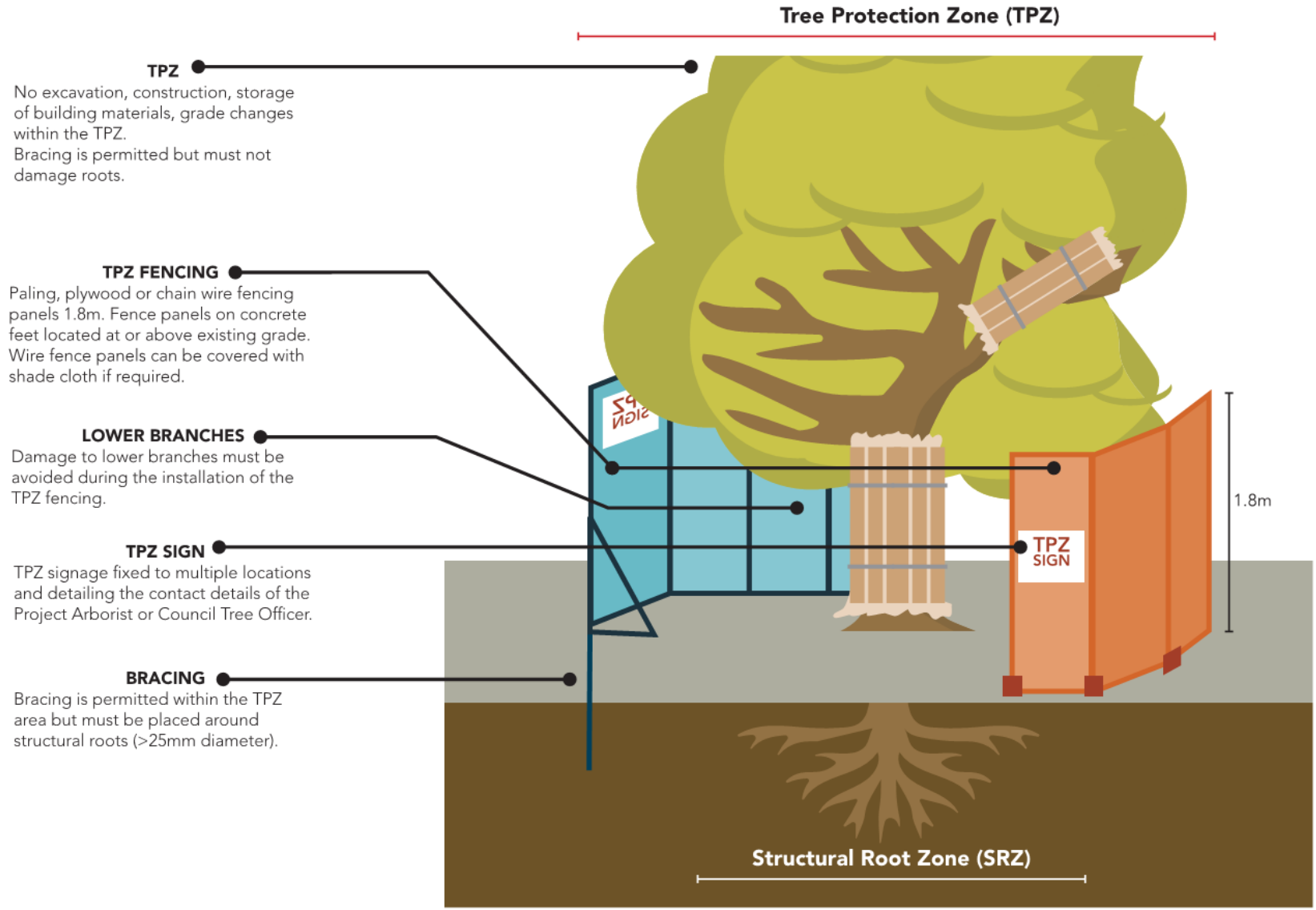
DRAWING: ERROSION & SEDIMENT CONTROL PLAN

LOT:52 **DP:**12838
154 PLATEAU RD
BILGOLA PLATEAU, NSW 2107

CLIENT: JENNY & JANNIS KEARNEY BOTT
LGA: NORTHERN BEACHES COUNCIL
DESIGN: ALTS & ADDS TO EX SINGLE STOREY DWELLING
JOB No:1962024 **SHEET SIZE:** A3 **SHEET No:**7 of 30

12.0 APPENDIX 7 | TYPICAL TREE PROTECTION DETAIL

Tree Protection Detail - TPZ Fencing



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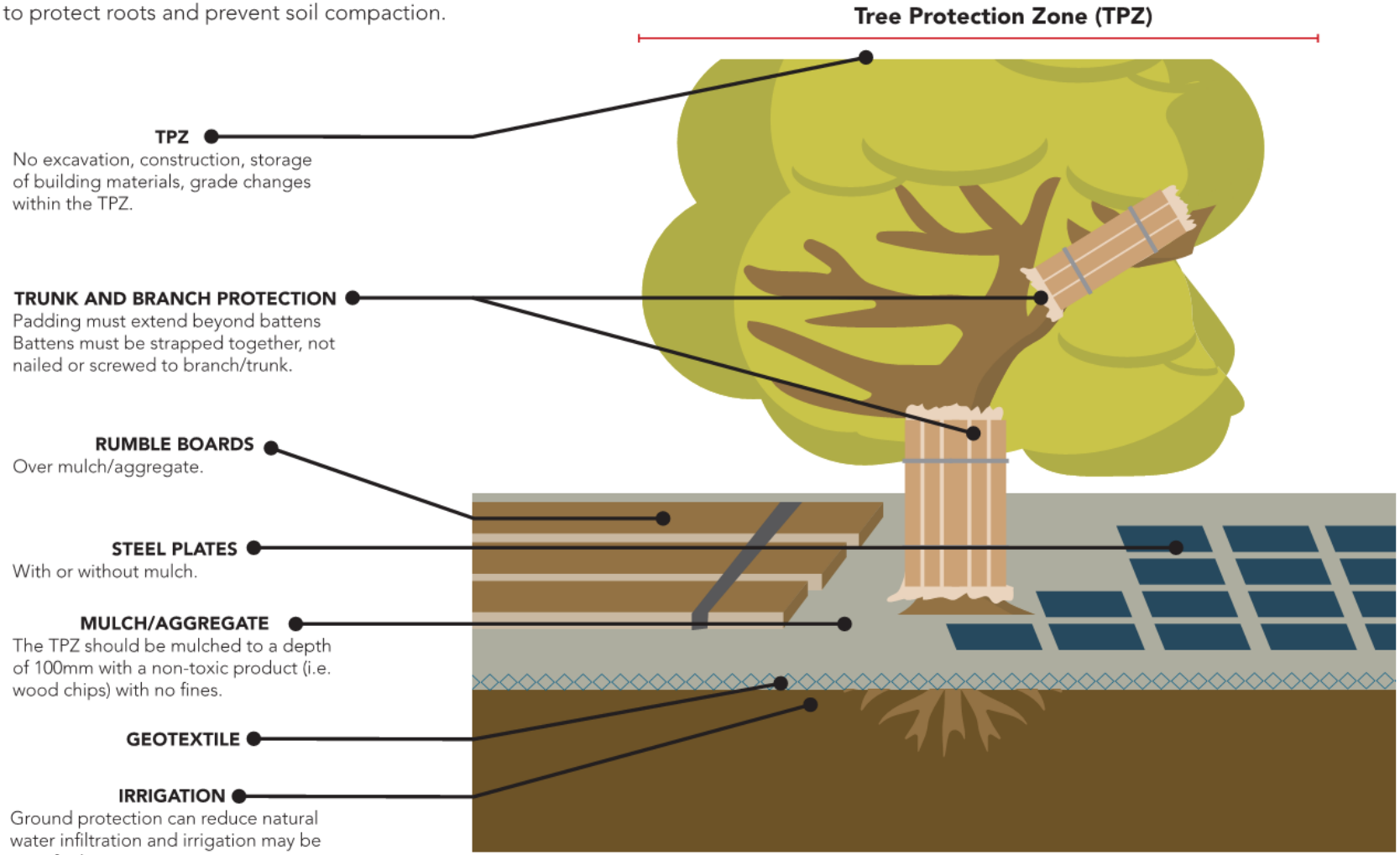
Tree Protection Detail - Ground Protection

Required if temporary access for machinery is required within the TPZ to protect roots and prevent soil compaction.



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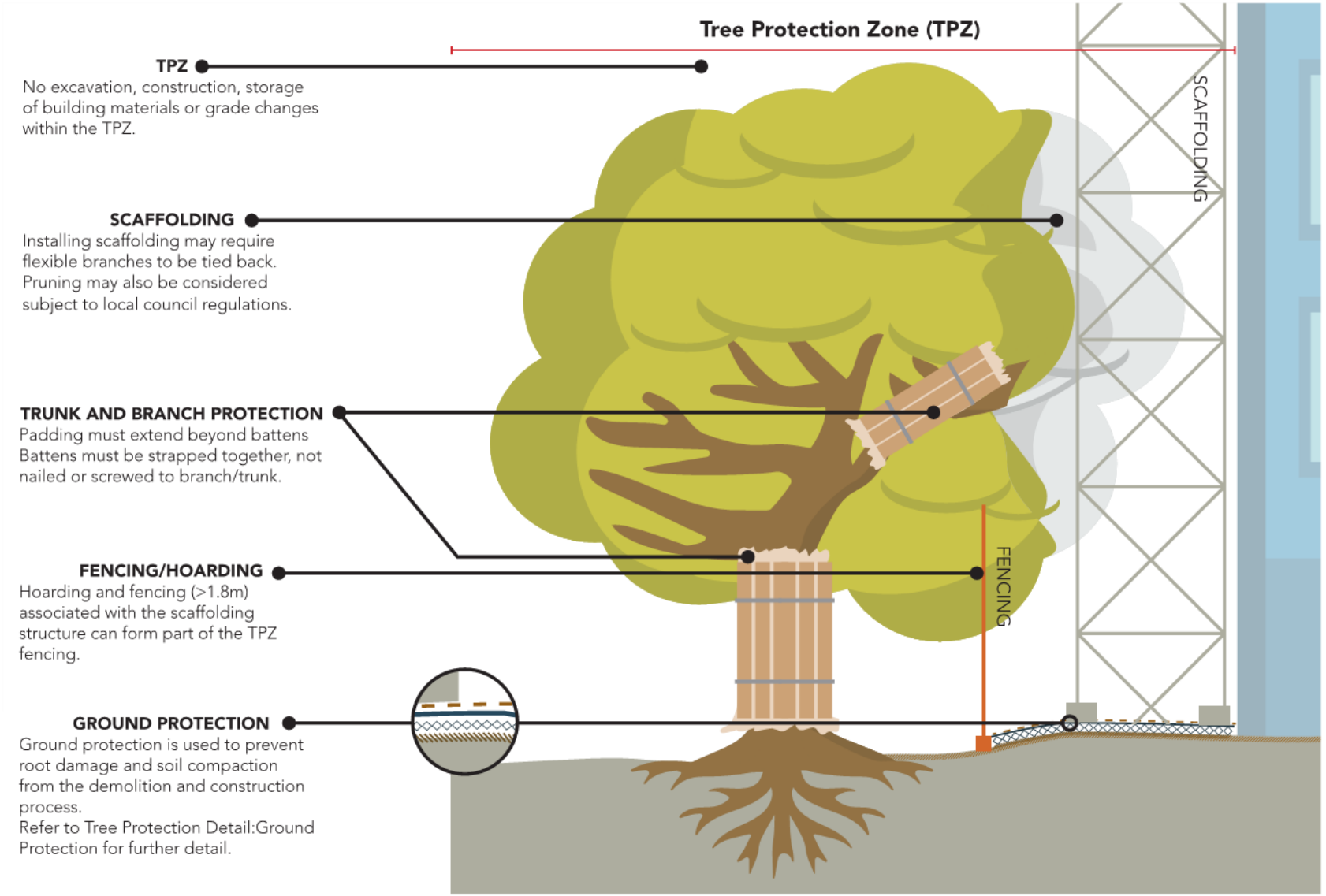
Tree Protection Detail - Scaffolding within TPZ



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ACN: 625 300 530

13.0 APPENDIX 8 | TREE PROTECTION SPECIFICATION

13.1 Appointment of Project Arborist

13.1.1 Prior to commencement of works a Project Arborist should be engaged to monitor compliance with the protection measures. The Project Arborist will inspect tree protection measures and prepare a compliance certification for the principal certifying authority prior to the release of compliance certification. Contractors and site workers are to receive these specifications at least 3 days prior to commencing works. Contractors and site workers working within the TPZ should sign the site log confirming they have read and understood these specifications prior to commencing works.

13.2 Compliance

13.2.1 The Project Arborist will conduct regular site visits to certify the works are compliant with this specification. A compliance document will be prepared by the Project Arborist following each site inspection. The compliance document will include evidence of compliance with the tree protection measures detailed in this specification.

13.3 Tree & Vegetation Removal

13.3.1 Tree and vegetation removal will be undertaken prior to installation of tree protection measures. Tree removal works should be undertaken in accordance with the *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work* (2016).

13.3.2 Tree and vegetation removal must not damage trees to be retained.

13.4 Tree Protection Zone

13.4.1 Trees that are to be retained must be protected prior to and during construction from works that could negatively impact their health and structural integrity. The following works should not occur within the TPZ unless authorised by the Project Arborist:

- Modification of existing soil levels, excavations and trenching
- Mechanical removal of vegetation
- Movement of naturally occurring rock
- Storage of materials, plant/equipment and building of sheds
- No signage or hoarding shall be fixed to the trees
- Preparation of building materials, refuelling or disposal of waste materials and chemicals
- No lighting of fires
- No pedestrian or vehicular traffic
- Temporary or permanent location of services, or works required for their installation
- Any other activities that may damage the tree

13.6 **Tree Protection Fencing**

13.6.1 The TPZ fencing must be positioned at the perimeter of the TPZ and may be combined to form a single area where the TPZs of multiple trees overlap. The approximate location of the TPZ fencing is outlined in the Arboricultural Impact Assessment with the exact location determined by consultation between the Principal Contractor/Project Manager and the Project Arborist prior to the commencement of works. Fencing may be setback to allow for demolition/construction access and for the installation of pavements only where appropriate ground protection is installed and approved by the Project Arborist. The TPZ fencing must be at least 1.8m above grade and made of wire mesh panels that are supported by concrete feet and fastened together to prevent sideways movement. Tree damage, including any low branches, must be avoided during the installation of the tree protection fencing. The TPZ fencing must include signage to identify the TPZ fencing and include the Project Arborist contact details.

13.7 **Site Management**

13.7.1 Materials, waste storage and temporary services should not be located within the TPZ.

13.8 **Works within the Tree Protection Zones**

13.8.1 In certain situations, works within the TPZ may be authorised by the determining authority. These works must be supervised by the Project Arborist. When working within the TPZ, special care should be taken to avoid damage to the tree's root system, trunks and lower branches.

13.8.2 If roots (>25mm∅) are encountered during excavation, demolition and construction works, these roots must be retained undamaged and advice sought from the Project Arborist. The design and final levels must remain flexible to enable the retention of roots >25mm∅ where deemed necessary by the Project Arborist.

13.9 **Ground Protection**

13.9.1 The movement of machinery should be restricted to existing paved areas or in areas with temporary ground protection (i.e. steel road plates, ground mats) when deemed necessary by the Project Arborist.

13.9.2 Ground protection should be installed as per AS4970 and Appendix 7- *Typical Tree Protection Detail*.

13.9.3 If irrigation is considered necessary, it should be installed first and by a licensed irrigator under the supervision of the Project Arborist with no trenching.

13.9.4 The irrigation should be covered with a layer of geotextile and mulched to a depth of 100mm with a non-toxic product (i.e. woodchips) with no fines.

13.9.5 Once the irrigation, geotextile and mulch are in place then the ground protection boards (steel plates or rumble boards) can in be installed.

13.9.6 Boards should remain in place for the entire build.

13.10 **Trunk & Branch Protection**

13.10.1 If trunk protection is required it should be installed by wrapping the trunk and first order branching with padding (i.e. carpet underlay or 10mm thick geotextile) to a minimum height of 2m. Timber battens (90 x 45mm), spaced at 150mm centres should be strapped together and placed over the padding (Refer to AS4970 for further details).

13.10.2 Branch protection should be installed when considered necessary by the Project Arborist.

13.10.3 Branches should be wrapped with padding (i.e. Ableflex) to provide protection. Where possible, branches should be tied back and construction works to take place around branches (with appropriate branch protection installed as required). If pruning is unavoidable it should be in accordance with AS4373 and supervised by the Project Arborist.

13.11 **Structure & Pavement Demolition**

13.11.1 The Project Arborist should supervise the demolition of existing structures/pavement within the TPZ. Machinery is to be excluded from the TPZ unless operating from existing slabs, pavements or areas of ground protection. Machinery should not contact the tree's roots, trunks, branches and crown.

13.11.2 Existing pavement should be hand lifted to minimise disturbance to the existing sub-base and to prevent damage to tree roots. Wherever possible, the existing sub-base material should remain in situ.

13.11.3 When removing slab sections within the TPZ, machinery must work from the tree outwards to ensure the machinery always remains on the un-demolished section of slab. Wherever possible, footings or elements below grade should be retained to minimise disturbance to the tree's roots.

13.11.4 Structures must be shattered with hand-operated pneumatic/electric breaker before removal when considered necessary by the Project Arborist.

13.11.5 If roots (>25mm∅) are encountered during excavation, demolition and construction works these roots must be retained undamaged and advice sought from the Project Arborist. Exposed roots must be protected from direct sunlight, drying out and extremes of temperature by using 10mm thick jute geotextile fabric. This fabric should be kept moist at all times.

13.11.6 Where the Project Arborist determines that the tree is using underground elements (i.e. footings, pipes, rocks etc.) for support, these elements should be left *in situ*.

13.12 **Pavement/Kerb Installation**

13.12.1 Installation of pavements and sub-base within the TPZ must be supervised by the Project Arborist. New surfaces and sub-base materials should be placed above grade to minimise excavations and retain roots (unless prior root mapping has determined that there are no roots within the area of construction).

13.12.2 If roots (>25mm∅) are encountered during the installation of the new sub-base and surfaces these roots must be retained undamaged and advice sought from the Project Arborist. The design and final levels must remain flexible to enable the retention of roots >25mm∅ where deemed necessary by the Project Arborist.

13.12.3 Compaction of the ground prior to the installation of fill is not permitted.

13.12.4 New sub-base material should be a 20mm no-fines road base (i.e. Benedict Sand & Gravel- Product Code 20NF/RB or similar). Recycled concrete aggregates should not be used to avoid raising soil pH levels.

13.12.5 If required, bedding sand should be washed river sand (no crushed paving blends). The bedding sand should be consolidated with a pedestrian operated plate compactor only. If possible, pavement material should be permeable.

13.12.6 Kerbs within the TPZ should be modified to bridge roots (>25mm∅) unless root pruning is approved and undertaken by the Project Arborist.

13.13 **Underground Services**

13.13.1 The installation of underground services should be located outside of the TPZ. Where this is not possible they should be installed around or below roots (>25mm∅) using either hydrovac or hand excavation and supervised by the Project Arborist.

13.13.2 Boring methods may be used for the installation of services 800mm below grade. Excavations for starting and receiving pits for the boring equipment should be located outside of the TPZ or located to avoid roots (>25mm∅, or determined by the Project Arborist).

13.13.3 Excavations, Root Protection & Root Pruning

13.13.4 Excavations and root pruning within the TPZ must be supervised by the Project Arborist and should be avoided where possible.

13.13.5 No over-excavation, battering, or benching should be undertaken beyond the footprint of any structure unless approved by the Project Arborist. Hand excavation and root pruning along the excavation line should be completed prior to the commencement of mechanical excavation to prevent tearing and shattering damage to the roots.

13.13.6 Roots >25mm∅ should be pruned by the Project Arborist only. Roots <25mm∅ may be pruned by the Principal Contractor. Root pruning should be undertaken with clean, sharp secateurs or a pruning saw to ensure a smooth wound face, free from tears.

13.13.7 Damaged roots should be pruned behind the damaged tissues with the final cut made to the undamaged part of the root.

14.0 APPENDIX 9 | PLATES

a) Showing site from Plateau Road. b) Showing rear garden with Trees 9, 10 & 20. c) Showing Trees 25 and 12 with large trunk cavity. d) Showing localised crown death on Tree 12. e) Showing Trees 9 & 10. f) Showing Trees 13-15.

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15.0 APPENDIX 10 | LIMITATIONS & DISCLAIMERS

15.1 Subject trees were assessed from the ground only and for providing an Arboricultural Impact Assessment and Tree Protection Specification.

15.2 All recommendations in this Arboricultural Impact Assessment and Tree Protection Specification report are based on the observations made on the day of inspection (23.10.24). There is no warranty, expressed or implied, that problems or deficiencies relating to the subject trees, or the subject site may not arise in the future.

15.3 Laurence & Co Consultancy takes care to obtain information from reliable sources. However, Laurence & Co Consultancy can neither guarantee nor be responsible for the accuracy of information provided by others. Plans, diagrams, graphs and photographs in this Arboricultural Impact Assessment and Tree Protection Specification report are visual aids only and are not necessarily to scale. This report provides recommendations relating to tree management only. Advice should be sought from appropriately qualified consultants regarding design/construction/ecological/heritage etc. issues.

15.4 This report has been prepared for exclusive use by the client. This report should not be viewed by others or for any other reason outside its intended target or without the prior written consent of Laurence & Co Consultancy. Unauthorised alteration or separate use of any section of the report invalidates the report.

15.5 Many factors may contribute to tree failure and cannot always be predicted. Laurence & Co Consultancy takes care to accurately assess tree health and structural condition. However, a tree's internal structural condition may not always correlate to visible external indicators.

15.6 **Limitation of Liability**. Laurence & Co Consultancy shall be liable only for direct damages that result from negligence or wilful misconduct in the performance of its services. Under no circumstances shall Laurence & Co Consultancy be liable for indirect, consequential, special, or punitive damages, or for damages caused by the client's failure to perform its obligations under law or contract. Laurence & Co Consultancy shall not be liable for and Client shall indemnify Laurence & Co Consultancy from and against all claims, demands, liabilities and costs (including attorneys' and expert fees) arising out of or in any way related to our performance or non-performance of services, including all on-site activities except to the extent caused by Laurence & Co Consultancy's negligence or wilful misconduct. In no event shall Laurence & Co Consultancy's liability exceed the amount paid to Laurence & Co Consultancy by the Client for our professional services (net of reimbursable expenses) and Client specifically releases Laurence & Co Consultancy for any damages, claims, liabilities and costs in excess of that amount.

15.7 Reference should be made to any relevant legislation including Tree Management Controls. All recommendations contained within this report are subject to approval from the relevant Consent Authority.

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