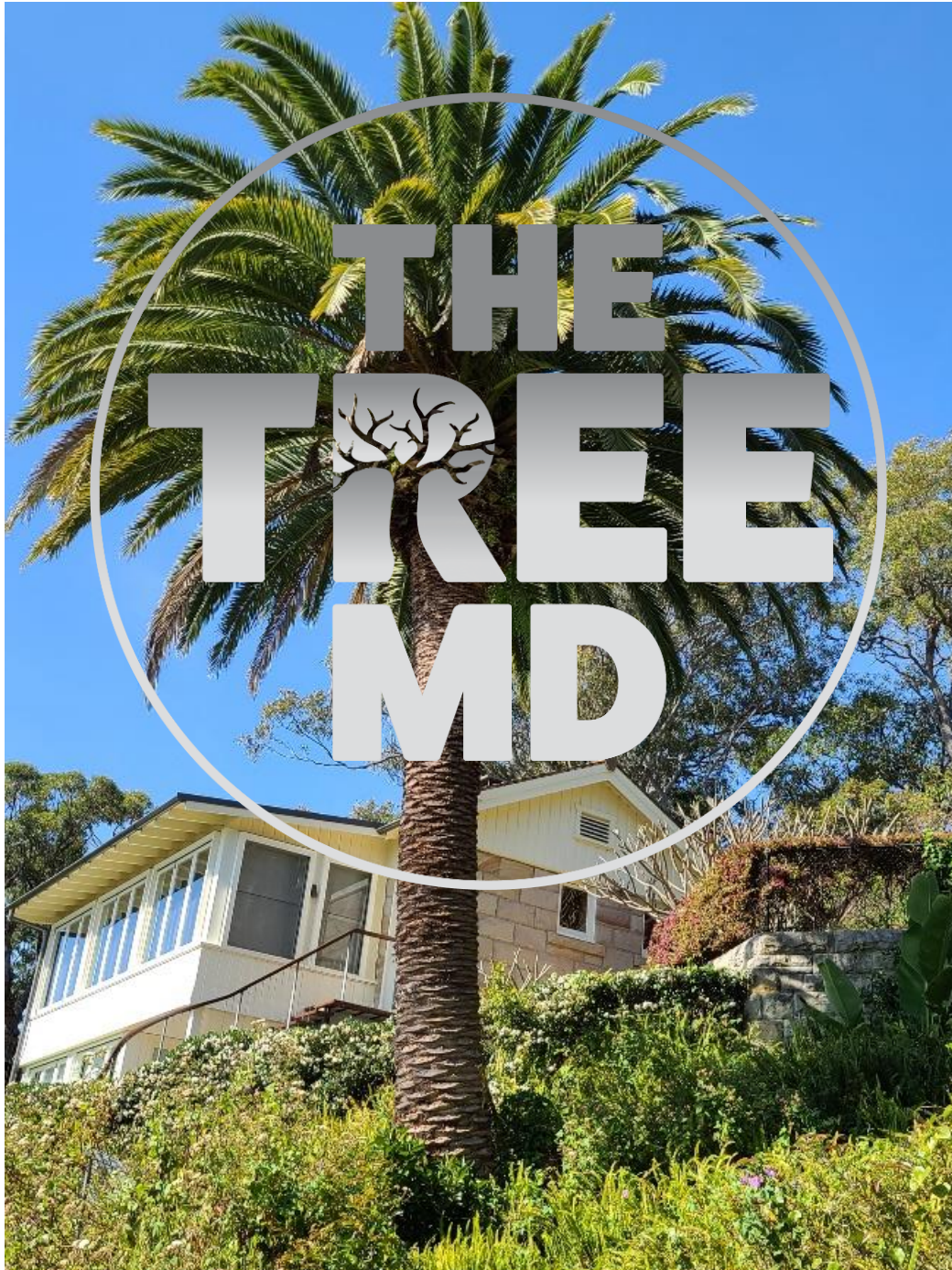


Arboriculture Addendum
121 Pacific Rd Palm Beach



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1 Addendum Recommendations

In response to address a Northern Beaches Council response letter dated 23rd February 2022 in relation to development application No. DA2021/2364 at 121 Pacific Rd Palm Beach NSW¹.

This addendum reiterates the recommendation to remove Tree 2 as the subject tree has significant damage to the main stem on the northern side. The tree is self-optimised however potential encroachments may reduce the trees growth optimisation and result in an increased risk of failure. The area around the tree will have an increased occupation once the development is complete and a replacement planting is the recommended long-term management for the site. It is additionally noted that the tree is likely to be exempt under the RMS 10/50 rule due to the distance from the current dwelling and could be removed prior to this application.

Tree 3 is on the boundary and believed to be in the neighbouring property to the south. A letter of consent from the owning body dated 28th February 2022² gives permission for Tree 3's removal. This tree is an exempt species and Northern Beaches Council has deemed the tree does not require consent within the Northern Beaches Council response letter dated 23rd February 2022¹.

Northern Beaches Council requested Tree 4 be retained and further discussions and information provided show minor encroachments on the subject tree within the current plan. There is a cantilevered slab, and it is understood the cantilevered slab must be above the existing root systems to maintain the minimal impact. Measurements provided which are inserted into the Appendix C Site Images show there is a total encroachment to TPZ from driveway and building of 5.6m² which is an encroachment of 3.44 % of the formulated Tree Protection Zone. Protection measures are to be implemented throughout the development process to reduce impacts on the subject tree.

The removal of a council verge tree (Tree 14) was recommended and is still recommend as the tree is in poor health. However, the removal of the tree is not required to allow for the development to proceed. The subject tree is insignificant within the streetscape and a replacement planting would be the best long-term management for the site.

Neighbouring Trees 20 and 21 are less significant and in close proximity to the proposed building. The subject trees are in the property to the north and are recommended for removal. A letter of consent from the owning body dated 3rd March 2022³ provides permission for the removal of these trees. This letter should suffice council's request for owning bodies consent prior to the approval of the proposed plans as outlined in the Northern Beaches Council response letter dated 23rd February 2022¹.

2 Disclosure Statement

Trees are living organisms that provide numerous benefits to the environment; Trees within an urban environment often pose some degree of risk, this risk must be weighed up against the benefits that trees provide. Often the risks associated from trees are minimal when compared to the commonly accepted risks associated with everyday living. Some examples would be commuting in a motor car, using a stairwell or crossing a road.

There is no warranty or guarantee expressed or implied that the subject trees are defect free or do not pose any risk of harm to persons or property. Visual Tree Assessment (VTA⁴) as well as additional tree assessment techniques cannot identify or eliminate all tree defects and failure potential.

The Tree MD Pty Ltd provides professional tree management options in line with industry standards to allow customers or relative legislative bodies to make informed choices. The report findings, conclusions, specifications or recommendations are often based on information provided whether it is measurements, site plans, official reports or verbal discussions. The Tree MD Pty Ltd cannot guarantee the accuracy of this information provided although it may be taken in good will and utilised to make findings, conclusions, specifications or recommendations within this report.

Findings, conclusions, specifications and recommendations are given on the information provided or present at the time of inspection, the condition of the subject trees may change over time or in the event of adverse weather where further additional assessment is recommended. The Tree MD Pty Ltd or anyone employed or working on behalf of The Tree MD Pty Ltd is not to be held liable for any damage or loss due to decisions made or not made regarding findings, conclusions, specifications or recommendations provided in this report.

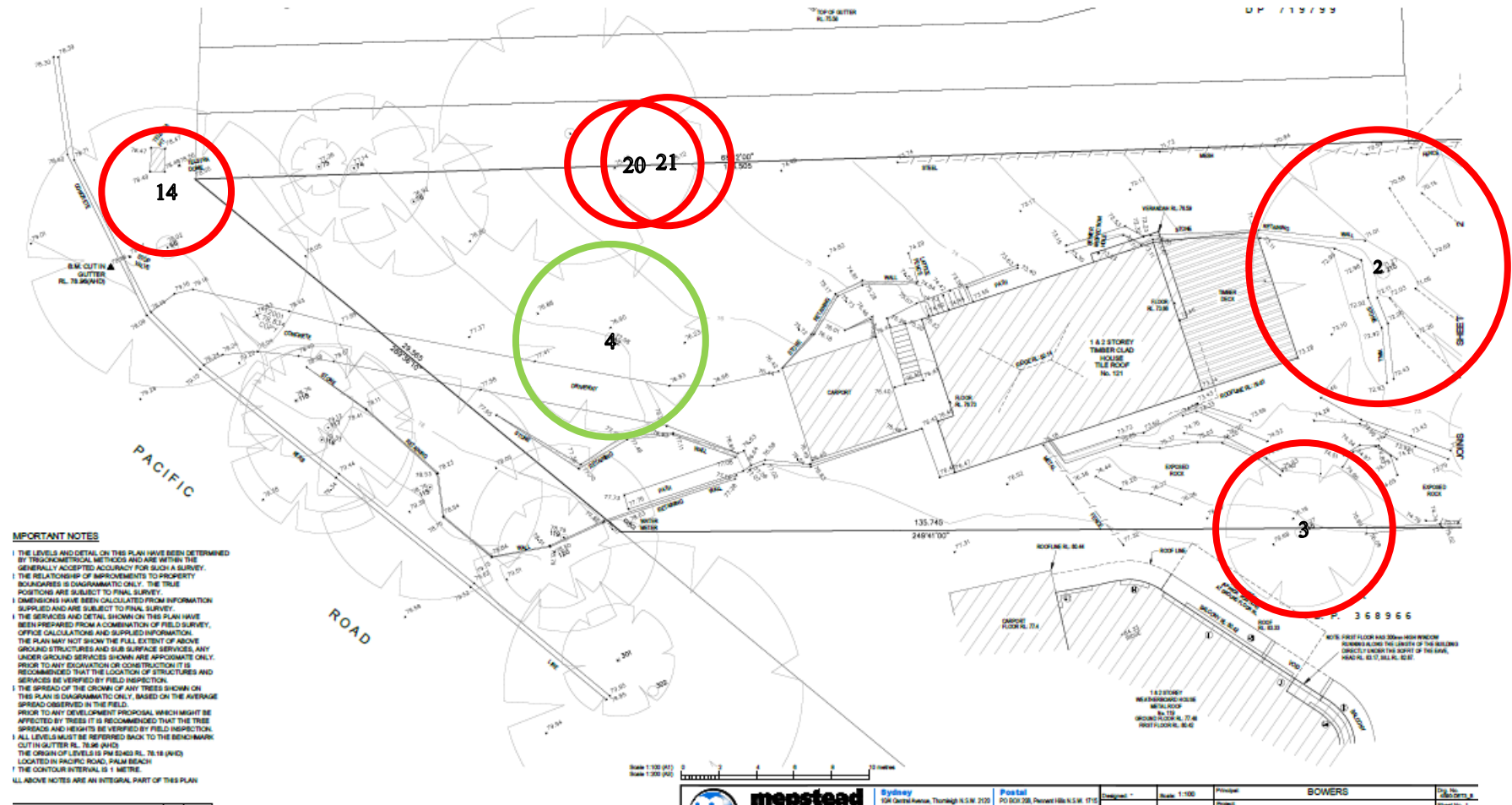
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3 Site

121 Pacific Rd Palm Beach NSW is Zoned Environmental living (E4) ⁵ and situated within the Northern Beaches Council and governed by the previous Pittwater Council's Local Environment Plan 2014⁶ & Development Control Plan⁷. A search of the council's website and Local Environment Plan could not find a heritage listing or conservation area zoning associated with the site⁸

The site is Southwest facing to Pacific Rd, and slopes away from the road to the North East. The trees are located throughout the property and neighbouring residence although concentrated along the front council verge. A soil analysis was not taken however the soil media appeared to be shallow and the site located on a rock shelf.






4 Appendix A Tree Protection Plan Diagram

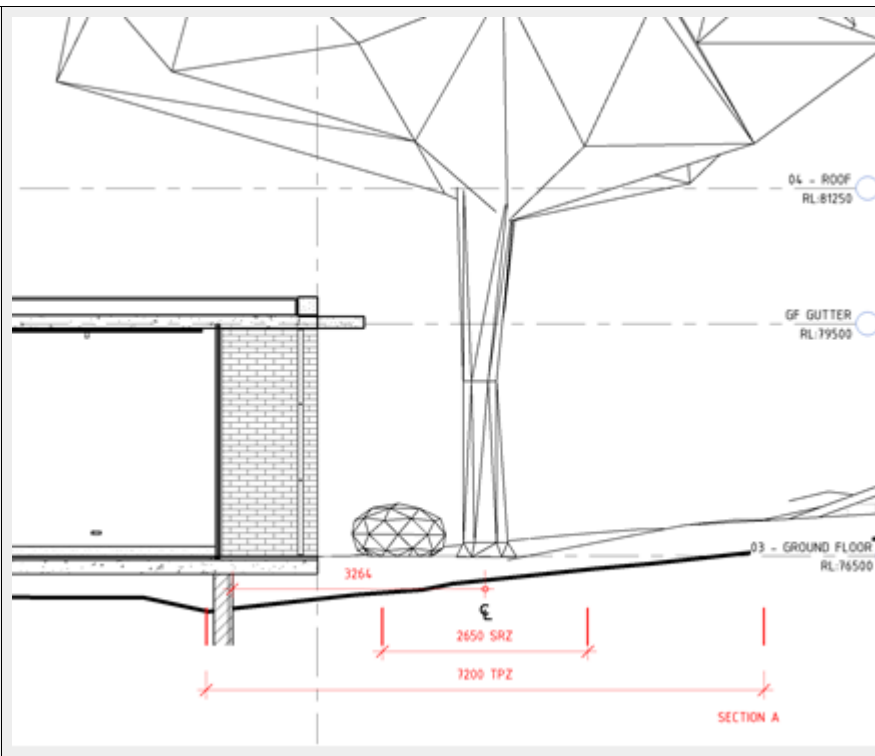
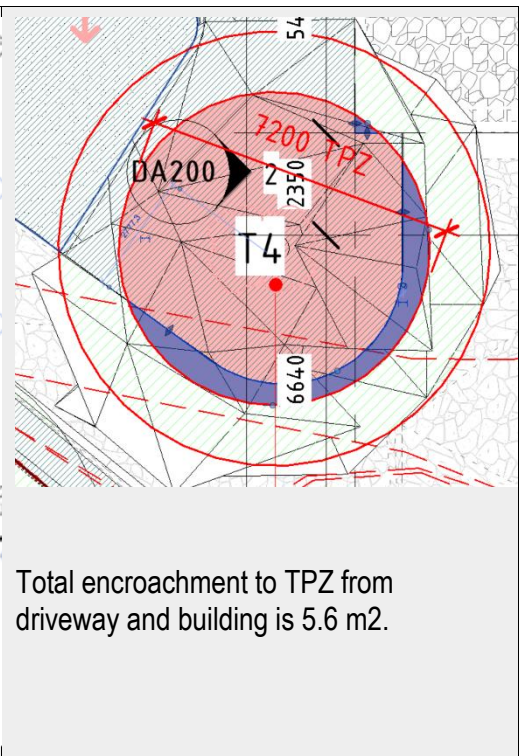

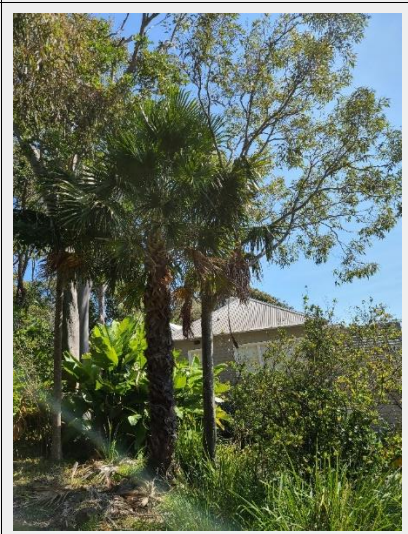


5 Appendix B Tree Profile Table

Tree no.	Genus Species Common Name	STARS® RATING	STARS® Life Exp.	Structure	Health	Age Class	Height(M)	Canopy N	Canopy E	Canopy S	Canopy W	Est. Encl.	SRZ	TPZ	DAB (M)	DBH Stem1	Notes/Comments	Recommendations
2	Spotted Gum <i>Corymbia maculata</i>	Medium The tree is in fair condition with good vigour, the trees growth is moderately restricted, and the tree provides a fair contribution to the visual character of the local area.	Short	Average	Average	M	16	6	5	6	10	100	3.20	10.32	0.92	0.86	10.8m from existing house, growing at base of rock retaining wall, short lower stem with wound up n side to 2m where stem divides into 2, large swelling on stem just below stem division, many borer holes present within wound, typical dead wood	Remove/Replace
3	Phoenix Palm <i>Phoenix canariensis</i>	Medium The tree is in good condition with good vigour, the tree has a form typical of its species, and the tree provides a fair contribution to the visual character of the local area.	Long	Good	Good	M	11	3	3	3	3	45.09	2.71	6.48	0.62	0.54	growing in fence line between properties on top of sandstone retaining wall, 9m from rear of house. Unlikely to be significant root systems due to elevation within rock face.	Protect Arborist supervision when working within TPZ, potential root pruning in accordance with AS4373-2007
4	Grey Ironbark <i>Eucalyptus paniculata</i>	Medium The tree is in good condition with good vigour, the tree has a form typical of its species, and the tree provides a fair contribution to the visual character of the local area.	Long	Average	Good	M	20	7	9	10	4	30	2.65	7.20	0.59	0.60	1.5m from driveway, no grade changes to proposed driveway. Encroachment from proposed building	Protect Arborist supervision when constructing within TPZ, root pruning in accordance with AS4373-2007 Flexible planting locations to avoid significant rootsystems
14	Spotted Gum <i>Corymbia maculata</i>	Low	Short	Poor	Poor	M	9	1	1	1	3	0.00	1.53	2	0.16	0.13	most of crown dead	Remove/Replace

Tree no.	Genus Species Common Name	STARS® RATING	STARS® Life Exp.	Structure	Health	Age Class	Height(M)	Canopy N	Canopy E	Canopy S	Canopy W	Est. Encl.	SRZ	TPZ	DAB (M)	DBH Stem1	Notes/Comments	Recommendations
20	Tuckeroo <i>Cupaniopsis anacardioides</i>	Medium The tree is in good condition and good vigour, , the tree has a form typical of its species, and the tree provides a fair contribution to the visual character of the local area.	Long	Good	Good	M	10	3	3	1.5	3	25	1.5	2	0.21	0.16	on or close to boundary	Protect Arborist supervision when constructing within TPZ, root pruning in accordance with AS4373-2007 Flexible planting locations to avoid significant rootsystems
21	<i>Washingtonia spp.</i>	Medium The tree is in good condition and good vigour, the tree has a form typical of its species, and the tree provides a fair contribution to the visual character of the local area.	Long	Good	Good	M	8.00	1.50	1.50	1.50	1.50	40		3.6	0.30	0.30	on or close to boundary	Protect Arborist supervision when constructing within TPZ, root pruning in accordance with AS4373-2007 Flexible planting locations to avoid significant rootsystems

2		
3		
4		

4		 <p>Total encroachment to TPZ from driveway and building is 5.6 m2.</p>
20		
21		

7 Appendix D Glossary

Visual Tree Assessment (VTA)	A systematic method of tree assessment (developed by Claus Mattheck & Helge Breloer) using biological and biomechanical indicators to evaluate overall vitality and structural integrity of a tree.
AQF Level 5 Arborist	An Arborist with a AQF level 5 qualification such as a Diploma in Arboriculture ⁹ This with relevant experience enables the person to perform the tasks required by the standard AS 4373 2007 and legislative bodies
Arborist ¹⁰	An Arborist with a AQF level 3 qualification ¹¹ or above of equivalent recognised and relevant experience that enables the person to perform the tasks required by the standard AS 4373 2007 and legislative bodies
Tree	As determined by the Burwood Council Tree Preservation Order.
Tree Worker	A worker who through related training (minimum AQF level 2 in Arboriculture) or equivalent recognised and relevant on the job experience has demonstrated competence in pruning in accordance to the standard AS 4373 2007
Selective pruning	The removal of target branches
Dead wooding	The removal of dead branches
Non-invasive excavation	Excavation that is carried out without damage to a trees rootsystem. This can be the careful use of hand tools or may utilise hydraulic jetting or an Airknife to reduce the amount of labour required.
Tree Protection Zone (TPZ) Or Modified Tree Protection Zone	A specified area at a given distance from the trunk set aside for the protection of a trees root system and canopy during land development works to ensure the long term viability and stability of a tree, calculated in accordance with AS 4970:2009.
Canopy	The crown of a tree, comprising all of the foliage and branches
Pruning	The selective removal of branches, severed at the branch collar near the junction with another branch in accordance with Natural Target Pruning techniques as specified in AS4373:2007.
Structural Root Zone (SRZ)	The Structural Root Zone is located within the Tree Protection Zone; it provides the bulk of mechanical support and anchorage for the tree.

8 Appendix E –IACA Significance of a Tree Assessment (Stars)



IACA Significance of a Tree, Assessment Rating System (STARS)©

(IACA 2010)©

In the development of this document IACA acknowledges the contribution and original concept of the Footprint Green Tree Significance & Retention Value Matrix, developed by Footprint Green Pty Ltd in June 2001.

The landscape significance of a tree is an essential criterion to establish the importance that a particular tree may have on a site. However, rating the significance of a tree becomes subjective and difficult to ascertain in a consistent and repetitive fashion due to assessor bias. It is therefore necessary to have a rating system utilising structured qualitative criteria to assist in determining the retention value for a tree. To assist this process all definitions for terms used in the Tree Significance - Assessment Criteria and Tree Retention Value - Priority Matrix, are taken from the IACA Dictionary for Managing Trees in Urban Environments 2009.

This rating system will assist in the planning processes for proposed works, above and below ground where trees are to be retained on or adjacent a development site. The system uses a scale of High, Medium and Low significance in the landscape. Once the landscape significance of an individual tree has been defined, the retention value can be determined. An example of its use in an Arboricultural report is shown as Appendix A.

Tree Significance - Assessment Criteria

1. High Significance in landscape

- The tree is in good condition and good vigour;
- The tree has a form typical for the species;
- The tree is a remnant or is a planted locally indigenous specimen and/or is rare or uncommon in the local area or of botanical interest or of substantial age;
- The tree is listed as a Heritage Item, Threatened Species or part of an Endangered ecological community or listed on Councils significant Tree Register;
- The tree is visually prominent and visible from a considerable distance when viewed from most directions within the landscape due to its size and scale and makes a positive contribution to the local amenity;
- The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values;
- The tree's growth is unrestricted by above and below ground influences, supporting its ability to reach dimensions typical for the taxa in situ
- tree is appropriate to the site conditions.

2. Medium Significance in landscape

- The tree is in fair-good condition and good or low vigour;
- The tree has form typical or atypical of the species;
- The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area
- The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street,
- The tree provides a fair contribution to the visual character and amenity of the local area,
- The tree's growth is moderately restricted by above or below ground influences, reducing its ability to reach dimensions typical for the taxa in situ.

3. Low Significance in landscape

- The tree is in fair-poor condition and good or low vigour;
- The tree has form atypical of the species;
- The tree is not visible or is partly visible from surrounding properties as obstructed by other vegetation or buildings,
- The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area,
- The tree is a young specimen which may or may not have reached dimension to be protected by local Tree Preservation orders or similar protection mechanisms and can easily be replaced with a suitable specimen,
- The tree's growth is severely restricted by above or below ground influences, unlikely to reach dimensions typical for the taxa in situ
- tree is inappropriate to the site conditions,
- The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms,
- The tree has a wound or defect that has potential to become structurally unsound. Environmental Pest / Noxious Weed Species
- The tree is an Environmental Pest Species due to its invasiveness or poisonous/ allergenic properties,
- The tree is a declared noxious weed by legislation.


4. Hazardous/Irreversible Decline

- The tree is structurally unsound and/or unstable and is considered potentially dangerous,
- The tree is dead, or is in irreversible decline, or has the potential to fail or collapse in full or part in the immediate to short term.

The tree is to have a minimum of three (3) criteria in a category to be classified in that group.

Note: The assessment criteria are for individual trees only, however, can be applied to a monocultural stand in its entirety e.g.

Table 1.0 Tree Retention Value - Priority Matrix

		Significance				
		1. High	2. Medium	3. Low		
		Significance in Landscape	Significance in Landscape	Significance in Landscape	Environmental Pest / Noxious Weed Species	Hazardous / Irreversible Decline
Estimated Life Expectancy	1. Long >40 years					
	2. Medium 15-40 Years					
	3. Short <1-15 Years					
	Dead					
<p><u>Legend for Matrix Assessment</u></p> 						
		Priority for Retention (High) - These trees are considered important for retention and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by the Australian Standard AS4970 <i>Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented e.g. pier and beam etc if works are to proceed within the Tree Protection Zone.				
		Consider for Retention (Medium) - These trees may be retained and protected. These are considered less critical, however their retention should remain priority with removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.				
		Consider for Removal (Low) - These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.				
		Priority for Removal - These trees are considered hazardous, or in irreversible decline, or weeds and should be removed irrespective of development.				

USE OF THIS DOCUMENT AND REFERENCING

The IACA Significance of a Tree, Assessment Rating System (STARS) is free to use, but only in its entirety and must be cited as follows:

IACA, 2010, IACA Significance of a Tree, Assessment Rating System (STARS), Institute of Australian Consulting Arboriculturists, Australia, www.iaca.org.au

9 Bibliography/References

-
- ¹ Northern Beaches Council response letter dated 23rd February 2022 in relation to development application No. DA2021/2364 at 121 Pacific Rd Palm Beach NSW
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- ⁴ Matheck, C. Updated Field Guide For Visual Tree Assessment. Karlsruhe: Forschungszentrum Karlsruhe, 2007.
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- ⁹ Australian Standard Pruning of Amenity Trees AS 4373 2007
- ¹⁰ WorkCover. 2016. *Home - WorkCover*. [ONLINE] Available at: <http://www.workcover.nsw.gov.au>. [Accessed 8th November 2021].
- ¹¹ Australian Standard Pruning of Amenity Trees AS 4373 2007