Appendix L
Arboricultural Assessment

Project No: POWERHOUSE/ULTIMO/22 Report No: POWERHOUSE/ULTIMO/PREL/D

PRELIMINARY ARBORICULTURAL REPORT

Powerhouse Ultimo Renewal
500 Harris Street
Utlimo

Prepared for: DEPARTMENT OF ENTERPRISE, INVESTMENT & TRADE

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Revision D

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1.0 INTRODUCTION

1.1 Background

1.1.1 This Preliminary Arboricultural Report has been prepared on behalf of the Department of Enterprise, Investment and Trade (Create NSW) to support a State Significant Development (SSD) Development Application (DA) for alterations and additions to Powerhouse Ultimo at 500 Harris Street, Ultimo.

1.1.2 The Powerhouse Ultimo Renewal is a transformative $480-$500 million investment by the NSW Government to establish a world-class museum that will significantly contribute to an important and developing part of Sydney. The renewal will see Powerhouse Ultimo deliver a programming focus on design and fashion, presenting exhibitions that showcase the Powerhouse Collection, international exclusive exhibitions and programs that support the design and fashion industries.

1.1.3 The purpose of this Report is to undertake a Visual Tree Assessment[1] (VTA), provide an overview of the quality and value of the trees, determine Tree Protection Zone (TPZ) and Structural Root Zone (SRZ) areas in accordance with *Australian Standard 4970 Protection of Trees on Development Sites (2009),* and provide arboricultural advice early in the planning stages of the project. The ecological significance and heritage value of the trees has not been assessed and is beyond the scope of this Report.

1.1.4 In preparing this Report, the authors have considered the objectives of the following:

- *Sydney Local Environmental Plan (2012)*
- *Sydney Development Control Plan - Section 3.5 Urban Ecology (2012)*
- *City of Sydney Tree Guidelines for Pruning, Reporting and Using an Arborist (2020)*
- *City of Sydney Register of Significant Trees (2013)*
- *Australian Standard 4970 Protection of Trees on Development Sites (2009)*
- *Australian Standard 4373 Pruning of Amenity Trees (2007)*
- *Australian Standard 2303 Tree Stock for Landscape Use (2015)*
- *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)*

Refer to Methodology **(Appendix 1)**

1.2 Process

1.2.1 The Powerhouse Ultimo Renewal project is for the purposes of an 'information and education facility' with a capital investment value of more than $30 million, and such is classified as State Significant Development (SSD) pursuant to Section 13(1) of Schedule 1 of State Environmental Planning Policy (Planning Systems) 2021.

1.2.2 The delivery of the new Creative Industries Precinct for Powerhouse Ultimo will occur in stages, comprising the following:

- Stage 1 – Concept DA establishing the planning, design, and assessment framework for the Powerhouse Ultimo Renewal Project including the indicative land uses, maximum building envelopes, general parameters for the future layout of the site, and strategies to guide the subsequent detailed design phases of the project including Urban Design Guidelines and Design Excellence Strategy.

[1] Mattheck & Breloer (2003)

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- Architectural Design Competition – A competitive design process to critically analyse and provide design alternatives for the Powerhouse Ultimo Renewal project in accordance with the planning and development framework established for the site under the Concept DA. A winning design will be selected by a jury of experts and will inform the subsequent detailed design and assessment phase (Stage 2) of the project.

- Stage 2 – A Detailed DA confirming the ultimate architectural design and operation of Powerhouse Ultimo and assessing any associated planning and environmental impacts. This Detailed DA will seek consent for the detailed design, construction and operation of the proposed development and follows the same planning assessment and determination process as the Concept DA (Stage 1).

2.0 RESULTS

2.1 The Site

2.1.1 Powerhouse Ultimo is situated upon the lands of the Gadigal people of the Eora Nation. It is located within the City of Sydney Local Government Area and its primary address is 500 Harris Street, Ultimo.

2.1.2 The site contains two heritage-listed buildings, being the 'Ultimo Power House' (c.1899-1905) and the 'Former Ultimo Post Office including interior' (c.1901), both of which are listed on the State Heritage Register under the *Heritage Act 1997*.

2.1.3 Other buildings within the site include the former tram shed (Harwood Building) and the 1988 museum building fronting Harris Street (Wran Building). A café building has been constructed immediately to the south of the Powerhouse at the northern end of the Goods Line. Located at the corner of Harris Street and Macarthur Street is a forecourt that acts as the main public entrance to the site, but provides limited activation and is disconnected from higher-quality urban spaces including the Ultimo Goods Line.

2.1.4 The primary focus of the Powerhouse Ultimo Renewal project is the museum to the north of Macarthur Street and bounded by Harris Street, Pier Street and the light rail corridor. However, some enabling and minor decoupling works will occur within the broader Powerhouse Ultimo precinct.

2.1.5 No substantive works or changes in use are proposed to the Harwood Building located between Macarthur Street and Mary Ann Street.

2.2 The Trees

2.2.1 Twenty-two (22) trees were assessed using the VTA[2] criteria and notes. Two (2) species are represented; *Platanus* x *acerifolia* (London Plane Tree) and *Tristaniopsis laurina* (Water Gum).

Refer to Tree Assessment Schedule **(Appendix 2)**

2.2.2 Trees 1-15 are located within the eastern Harris Street road reserve and Tree 16 is located within the southern Macarthur Street road reserve. Tree 17 is an in-road planting located at the eastern end of Macarthur Street and Trees 18-22 are located within a courtyard area to the south of the Powerhouse.

[2] Mattheck & Breloer (2003)

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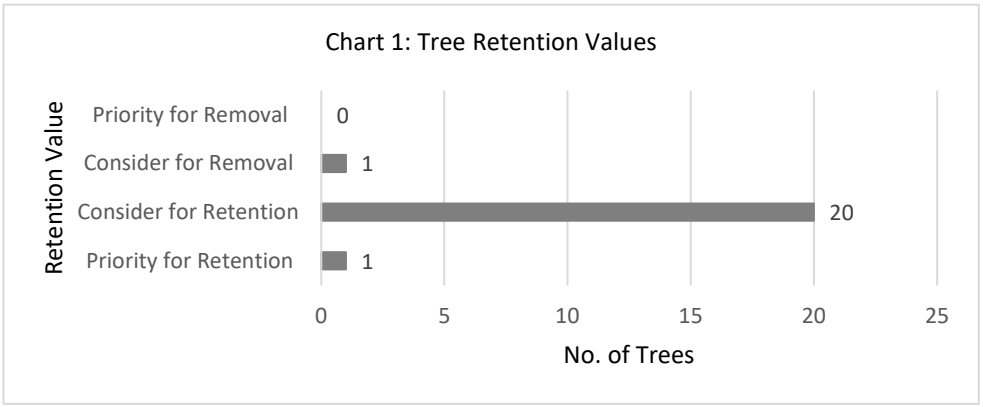
2.2.3 The trees are not listed within the *City of Sydney Register of Significant Trees* (2013) or Schedule 5 Environmental Heritage of the *Sydney Local Environmental Plan (2012)*.[3] The trees are not visible in 1943 aerial images of the site, and it is unlikely that any of the existing trees would be considered culturally significant specimens or associated with heritage-listed buildings.[4]

2.2.4 A search of the BioNet Atlas of NSW Wildlife Database was undertaken in March 2022. No individual threatened tree species listed within this database for the locality were identified during the field investigations of the site.[5]

2.2.5 As required by Clause 2.3.2 of *Australian Standard 4970 Protection of Trees on Development Sites (2009)*, each of the trees assessed has been allocated a Retention Value. TreeiQ allocates one of four Retention Value categories based on a combination of Landscape Significance and Useful Life Expectancy (ULE). The assessment of Landscape Significance and ULE involves a degree of subjectivity and there will be a range of tree quality and value within each of the Retention Value categories. The Retention Values do not consider any proposed development works and are 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

Refer to Tree Retention Values **(Chart 1)**



2.2.6 The allocation of a Retention Value is a key step in the tree management process as it helps the design team, other project consultants and the consent authority identify which are the most valuable trees on site. It may not be possible to retain all existing trees on a development site. However, the proposal should demonstrate that the retention of the higher value trees have been prioritised within the design process.

[3] City of Sydney (2013), City of Sydney (2012)
[4] NSW Government Spatial Services (2016)
[5] NSW Office of Environment and Heritage (2011)

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3.0 DISCUSSION

3.1 Tree Assessment

3.1.1 Trees 1-15 *Platanus* x *acerifolia* (London Plane Tree)

Trees 1-15 were identified as *Platanus* x *acerifolia* (London Plane Tree) and are located within the eastern Harris Street road reserve. With the exception of Trees 3 and 4, the trees are in good health and structural condition. Trees 3 and 4 are in fair health as evidenced by a reduced crown density and the presence of small diameter epicormic growth. All of the trees have been Crown Lifted for vehicular and pedestrian clearances and Trees 5-8 have also been Reduction Pruned on the eastern side of their crowns for building clearance. The pavers at the base of Trees 1 and 15 have been extensively lifted, presumably as a result of root growth. Trees 1-15 are of moderate Landscape Significance and have been allocated a Retention Value of *Consider for Retention*.

3.1.2 Tree 16 *Tristaniopsis laurina* (Water Gum)

Tree 16 was identified as *Tristaniopsis laurina* (Water Gum) and is located within the southern Macarthur Street road reserve. The tree is in good health and structural condition. Tree 16 is of low Landscape Significance and has been allocated a Retention Value of *Consider for Removal.*

3.1.3 Trees 17 *Platanus* x *acerifolia* (London Plane Tree)

Tree 17 was identified as *Platanus* x *acerifolia* (London Plane Tree) and is an in-road planting located at the eastern end of Macarthur Street. The tree is in good health and structural condition, and with a crown which extends over the entire carriageway, is considered the best tree on site. Tree 17 is of high Landscape Significance and has been allocated a Retention Value of *Priority for Retention.*

3.1.4 Trees 18-22 *Platanus* x *acerifolia* (London Plane Tree)

Trees 18-22 were identified as *Platanus* x *acerifolia* (London Plane Tree) and are located within a courtyard area to the south of the Powerhouse. The trees are large specimens which have been extensively Crown Lifted and have developed asymmetrical crown forms due to mutual suppression. The trees are of moderate Landscape Significance and have been allocated a Retention Value of *Consider for Retention*.

3.1.5 Although the trees were assessed as being in good health and structural condition, the trees are located in small, raised planters which are likely to have influenced the root architecture of the trees. It can be assumed that roots have developed out of the bottom of these planters as is evidenced by the lifting of areas of the surrounding pavement. However, it is also likely that some roots have been developed within the confines of the raised planter resulting in congested root mass which provides limited structural stability to the root plate as a whole.

3.2 Development Works

3.2.1 This Concept DA sets the guidelines for the renewal of Powerhouse Ultimo with the detailed design, construction, and operation of the project to be sought at a separate and future stage (Stage 2). Concept approval is sought for the following:

- A maximum building envelope for any new buildings and alterations and additions to existing buildings retained on the site.
- Use of the new spaces and built form as an 'information and education facility' including exhibition, education, and back of house spaces, and a range of related and ancillary uses to contribute to the operation of Powerhouse Ultimo.

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- Endorsement of Urban Design Guidelines and a Design Excellence Strategy to guide the detailed design of the future building, internal spaces, and public domain areas that will be the subject of a competitive design process and a separate and future DA (Stage 2).
- An updated Conservation Management Plan to ensure that future development occurs in a manner that is compatible with, and facilitates the conservation of, the heritage values of the site.
- General functional parameters for the future design, construction, and operation of buildings and uses on the site including the principles and strategies for the management of transport and access, flooding, sustainability, heritage and the like.

3.2.2 *Australian Standard 4970 (2009) Protection of Trees on Development Sites (AS-4970)* outlines that a Tree Protection Zone (TPZ) is the principal means of protecting trees on development sites. It is an area isolated from construction disturbance so that the tree remains viable.[6] The TPZ is calculated as a radial measurement based on twelve (12) times the tree's Diameter at Breast Height (DBH).

3.2.3 AS-4970 also provides calculations to determine a tree's Structural Root Zone (SRZ). The SRZ is described in AS-4970 as the area around the base of a tree required for the tree's stability in the ground. This zone considers a tree's structural stability only, not the root zone required for its vigor and long-term viability, which will usually be a much larger area. Severance of structural roots (>25mmØ) within the SRZ is generally not recommended as it may lead to the destabilisation and/or decline of the tree.

Refer to TPZ & SRZ Plan **(Appendix 3)**

3.2.4 Ideally, works should be avoided within the TPZ. A *Minor Encroachment* is less than 10% of the TPZ and is outside the SRZ. A *Minor Encroachment* is considered acceptable by AS-4970 when it is compensated for elsewhere and contiguous within the TPZ. A *Major Encroachment* is greater than 10% of the TPZ or inside the SRZ. *Major Encroachments* generally require root investigations undertaken by non-destructive methods or the use of tree sensitive construction methods.

3.2.5 AS-4970 outlines that the TPZ may need to be modified (extended) to provide additional protection to the above ground parts of the tree. Where conflict between branches, new structures and construction machinery could occur, 3D laser surveying of the tree's crown may be required to accurately determine potential impacts. Branches may be temporarily protected with padding and timber battens or tied back, or in some cases pruning may be possible to provide additional clearances where these works would not impact the tree's ULE or form. Pruning requirements should be outlined within a Pruning Specification prepared in accordance with *Australian Standard 4373 Pruning of Amenity Trees (2007).*

3.3 Canopy Cover Targets

3.3.1 Clause 3.5.2 (2) of the *Sydney Development Control Plan (2012)* outlines that new developments require at least 15% canopy coverage within 10 years of completion. New tree plantings combined with well-designed infrastructure (i.e. tree pit design and soil volume requirements) to support their establishment and ensure optimum growth over the long term will be required to meet these targets.

[6] Standards Australia (2009)

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3.3.2 There is a very limited diversity of the trees at and surrounding the site. When selecting new trees, it is important to ensure a diversity of plant family, genus and species is selected to provide greater resilience against pests, diseases and climatic conditions. In addition, the potential mature size of new trees should be considered to ensure sufficient space for the development of good tree form. Overplanting or planting trees in close proximity to one another will promote suppression, impact tree form, reduce amenity value and likely increase management costs over the lifetime of the tree. New trees should be grown and supplied in accordance with *Australian Standard 2303 Tree Stock for Landscape Use (2015)*.

3.4 Assessment Requirements

3.4.1 The Department of Planning and Environment (DPE) has issued Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement (EIS) for the proposed development. This report has been prepared having regard to the SEARs as follows:

Environmental Assessment Requirement	Where Addressed in this Report
Assess the number, location, condition and significance of trees to be removed and retained.	Sections 2.0 + 3.0

3.5 Mitigation Measures

3.5.1 Based on the findings and recommendations of this report, the following measures are suggested to mitigate the identified impacts of the proposed works.

Mitigation Measure	Indicative Timing
The detailed design and construction of proposed development will be addressed at Stage 2. As part of Stage 2, it is recommended that an Arboricultural Impact Assessment and Tree Protection Plan based on the 80% design should be prepared by an Arborist (AQF Level 5) to examine the potential impact of any proposed works on the trees and provide recommendations for tree sensitive methods and tree protection measures.	At the detailed Stage 2 SSDA stage
There is a very limited diversity of the trees at and surrounding the site. When selecting new trees, it is important to ensure a diversity of plant family, genus and species is selected to provide greater resilience against pests, diseases and climatic conditions. In addition, the potential mature size of new trees should be considered to ensure sufficient space for the development of good tree form. Overplanting or planting trees in close proximity to one another will promote suppression, impact tree form, reduce amenity value and likely increase management costs over the lifetime of the tree. New trees should be grown and supplied in accordance with *Australian Standard 2303 Tree Stock for Landscape Use (2015).*	At the detailed Stage 2 SSDA stage

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4.0 SUMMARY & CONCLUSIONS

4.1.1 Twenty-two (22) trees were addressed within this Report. Two (2) species are represented; *Platanus* x *acerifolia* (London Plane Tree) and *Tristaniopsis laurina* (Water Gum). Of the trees assessed:

- One (1) tree was allocated a Retention Value of *Priority for Retention*
- Twenty (20) trees were allocated a Retention Value of *Consider for Retention*
- One (1) tree was allocated a Retention Value of *Consider for Removal*
- No trees were allocated a Retention Value of *Priority for Removal*

4.1.2 Trees with a Retention Value of *Priority for Retention* should be prioritised for retention and trees with a Retention Value of *Consider for Retention* should be incorporated into the design whenever possible. Trees with a Retention Value of *Consider for Removal* should not be considered a design constraint and trees with a Retention Value of *Priority for Removal* should be removed regardless of any future development works.

4.1.3 The Reference Design shows Trees 1-15 and 17 are to be retained. New pavements areas surrounding the trees should consider their root systems when determining finished levels. There is likely to be roots immediately below the existing pavement surface surrounding the trees. Root pruning for pavement repairs or the installation of new pavements at existing levels will not be possible as the roots are located in SRZ areas. The SRZ is defined as the minimum are required for the stability of the tree. Increasing the size of the garden beds surrounding the trees or raising pavement (and subbase) will be required.

4.1.4 The Reference Design shows Trees 16 and 18-22 are to be removed. Tree 16 is of low Landscape Significance and has been allocated a Retention Value of *Consider for Removal.* A new tree planting using a healthy, advanced-sized specimen could replace the loss of amenity from tree removal within a short timeframe. Trees 18-22 are of moderate Landscape Significance and have been allocated a Retention Value of *Consider for Retention.* From a tree management perspective they are the most difficult trees to retain. These trees are likely to be more vulnerable to destabilisation through root loss or damage, altered wind loading from removal of trees within the group or changes to the form of surrounding buildings which may alter wind tunnelling or wind vortices effects. In addition, where containerisation of a tree's root plate causes a congested root mass to develop at the base of the tree, vascular constriction can occur which can impact tree health and ULE.

4.1.5 No physical works are proposed as part of this DA. The detailed design and construction of proposed development will be addressed at Stage 2. As part of Stage 2, it is recommended that an Arboricultural Impact Assessment and Tree Protection Plan based on the 80% design should be prepared by an Arborist (AQF Level 5) to examine the potential impact of any proposed works on the trees and provide recommendations for tree sensitive methods and tree protection measures.

4.1.6 The *Sydney Development Control Plan (2012)* outlines that new developments require at least 15% canopy coverage within 10 years of completion. New trees should be grown and supplied in accordance with *Australian Standard 2303 Tree Stock for Landscape Use (2015)*.

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5.0 LIMITATIONS & DISCLAIMER

TreeiQ takes care to obtain information from reliable sources. However, TreeiQ can neither guarantee nor be responsible for the accuracy of information provided by others. Plans, diagrams, graphs and photographs in this Arboricultural 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.

This Report has been prepared for exclusive use by the client. This Report shall not be used by others or for any other reason outside its intended target or without the prior written consent of TreeiQ. Unauthorised alteration or separate use of any section of the Report invalidates the Report.

Many factors may contribute to tree failure and cannot always be predicted. TreeiQ 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. There is no warranty or guarantee, expressed or implied that problems or deficiencies regarding the trees or site may not arise in the future. Information contained in this report covers only the trees assessed and reflects the condition of the trees at the time of inspection. Additional information regarding the methodology used in the preparation of this Report is attached as Appendix 1. A comprehensive tree risk assessment and management plan for the trees is beyond the scope of this Report.

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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Standards Australia (2015), *Tree Stock for Landscape Use AS-2303*

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7.0 APPENDICES

Appendix 1: Methodology

1.0 **Site Inspection**: This report was determined as a result of a comprehensive site inspection during March 2022.

2.0 **Visual Tree Assessment (VTA)**: The subject tree(s) was assessed using the Visual Tree Assessment criteria and notes as described in *The Body Language of Trees – A Handbook for Failure Analysis.*[7] The inspection was limited to a visual examination of the subject tree(s) from ground level only. The inspection was limited to a visual examination of the subject tree(s) from ground level only. No internal diagnostic or tissue testing was undertaken as part of this assessment. Trees outside the subject site were assessed from the property boundaries only.

3.0 **Tree Dimensions**: The dimensions of the subject tree(s) are approximate only.

4.0 **Tree Locations:** The location of the subject tree(s) was determined from the supplied plans. Trees not shown on the supplied plans have been plotted in their **approximate location only.**

5.0 **Trees & Development**: Tree Protection Zones, Tree Protection Measures and Sensitive Construction Methods for the subject tree were based on methods outlined in *Australian Standard 4970-2009 Protection of Trees on Development Sites*.

The *Tree Protection Zone* (TPZ) is described in AS-4970 as a combination of the root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.

The *Structural Root Zone* (SRZ) is described in AS-4970 as the area around the base of a tree required for the tree's stability in the ground. Severance of structural roots within the SRZ is not recommended as it may lead to the destabilisation and/or demise of the tree.

In some cases it may be possible to encroach into or make variations to the theoretical TPZ. A *Minor Encroachment* is less than 10% of the area of the TPZ and is outside the SRZ. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. A *Major Encroachment* is greater than 10% of the TPZ or inside the SRZ. In this situation the Project Arborist must demonstrate that the tree would remain viable. This may require root investigation by non-destructive methods or the use of sensitive construction methods.

6.0 **Tree Health**: The health of the subject tree(s) was rated as *Good*, *Fair* or *Poor* based on an assessment of the following factors:

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

7.0 **Tree Structural Condition**: The structural condition of the subject tree(s) was rated as *Good*, *Fair* or *Poor* based on an assessment of the following factors:

- Assessment of branching structure
  (i.e co-dominant/bark inclusions, crossing branches, branch taper, terminal loading, previous branch failures)
- Visible evidence of structural defects or instability
  (i.e root plate movement, wounds, decay, cavities, fungal brackets, adaptive growth)
- Evidence of previous pruning or physical damage
  (i.e root severance/damage, lopping, flush-cutting, lions tailing, mechanical damage)

8.0 **Useful Life Expectancy (ULE)**: The ULE is an estimate of the longevity of the subject tree(s) in its growing environment. The ULE is modified where necessary to take in consideration tree(s) 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

[7] Mattheck & Breloer (2003)

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9.0 **Landscape Significance**: Landscape Significance was determined by assessing the combination of the cultural, environmental and aesthetic values of the subject tree(s). Whilst these values are subjective, a rating of high, moderate, low or insignificant has been allocated to the tree(s). This provides a relative value of the tree's Landscape Significance which may aid in determining its Retention Value. If the tree(s) can be categorized into more than one value, the higher value has been allocated.

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 or meets the criteria for significance assessment of trees and/or landscapes by a suitably qualified professional. The criteria are based on general principles outlines in the Burra Charter and on criteria from the Register of the National Estate.
High	The subject tree creates a 'sense of place' or is considered 'landmark' tree.
	The subject tree is of cultural or historical importance or is widely known.
	The subject tree is a prominent specimen which forms part of the curtilage of a heritage item with a known or documented association with that item.
	The subject tree has been identified by a suitably qualified professional as a species scheduled as a Threatened or Vulnerable Species for the site defined under the provisions of the NSW *Biodiversity Conservation Act (2016)* or the Commonwealth *Environmental Protection and Biodiversity Conservation Act* (1999).
	The subject tree is known to contain nesting hollows to a species scheduled as a Threatened or Vulnerable Species for the site as defined under the provisions of the NSW *Biodiversity Conservation Act (2016)* or the Commonwealth *Environmental Protection and Biodiversity Conservation Act* (1999).
	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.
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 is a good representative of the species in terms of aesthetic value.
Low	The subject tree is a known environmental weed 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.

1.0 **Retention Value**: Retention Value was based on the subject tree's Useful Life Expectancy and Landscape Significance. The Retention Value was modified where necessary to take in consideration the subject tree's health, structural condition and site suitability. 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

ULE		Landscape Significance		
	Very High	High	Moderate	Low
40 years +	Priority for Retention	Priority for Retention		Consider for Removal
15-40 years		Priority for Retention	Consider for Retention	
5-15 years		Consider for Retention		
Less than 5 years	Consider for Removal	Priority for Removal		

The above table has been modified from the Footprint Green Tree Significance and Retention Value Matrix.

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Appendix 2: Tree Assessment Schedule

Tree No.	Species	DBH comb. (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Condition Rating	Comments	Age Class	ULE (years)	L/Sign	Retention Value	Radial TPZ (m)	Radial SRZ (m)
1	*Platanus* x *acerifolia* (London Plane Tree)	450	17	8	Good	Good	Partially suppressed. Crown lifted. Pavers displaced at base.	Mature	15-40	Moderate	Consider for Retention	5.4	2.4
2	*Platanus* x *acerifolia* (London Plane Tree)	400	15	6	Good	Good	Partially suppressed. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	4.8	2.3
3	*Platanus* x *acerifolia* (London Plane Tree)	350	15	6	Fair	Good	Partially suppressed. Crown density 75-95%. Small (<25mmø) epicormic growth in low volumes. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	4.2	2.4
4	*Platanus* x *acerifolia* (London Plane Tree)	300	15	6	Fair	Good	Partially suppressed. Crown density 50-75%. Small (<25mmø) epicormic growth in low volumes. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	3.6	2.0
5	*Platanus* x *acerifolia* (London Plane Tree)	400	15	6	Good	Good	Partially suppressed. Small (<25mmø) epicormic growth in low volumes. Crown lifted/Reduction Pruned.	Mature	15-40	Moderate	Consider for Retention	4.8	2.3
6	*Platanus* x *acerifolia* (London Plane Tree)	300	15	6	Good	Good	Partially suppressed. Small (<25mmø) epicormic growth in low volumes. Crown lifted/Reduction Pruned.	Mature	15-40	Moderate	Consider for Retention	3.6	2.0
7	*Platanus* x *acerifolia* (London Plane Tree)	400	15	6	Good	Good	Crown density 75-95%. Partially suppressed. Crown lifted/Reduction Pruned.	Mature	15-40	Moderate	Consider for Retention	4.8	2.3
8	*Platanus* x *acerifolia* (London Plane Tree)	400	15	6	Good	Good	Partially suppressed. Mechanical damage to exposed surface roots. Crown lifted/Reduction Pruned.	Mature	15-40	Moderate	Consider for Retention	4.8	2.3

Tree No.	Species	DBH comb. (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Condition Rating	Comments	Age Class	ULE (years)	L/Sign	Retention Value	Radial TPZ (m)	Radial SRZ (m)
9	*Platanus* x *acerifolia* (London Plane Tree)	250	15	6	Good	Good	Partially suppressed. Wound(s), early stages of decay. Adaptive growth. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	3.0	1.9
10	*Platanus* x *acerifolia* (London Plane Tree)	350	15	6	Good	Good	Partially suppressed. Truck impact damage. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	4.2	2.4
11	*Platanus* x *acerifolia* (London Plane Tree)	300	15	6	Good	Good	Partially suppressed. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	3.6	2.0
12	*Platanus* x *acerifolia* (London Plane Tree)	250	15	6	Good	Good	Partially suppressed. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	3.0	1.9
13	*Platanus* x *acerifolia* (London Plane Tree)	350	15	6	Good	Good	Partially suppressed. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	4.2	2.4
14	*Platanus* x *acerifolia* (London Plane Tree)	450	15	6	Good	Good	Partially suppressed. Crown lifted.	Mature	15-40	Moderate	Consider for Retention	5.4	2.4
15	*Platanus* x *acerifolia* (London Plane Tree)	600	16	8	Good	Good	Crown lifted. Pavers displaced at base.	Mature	15-40	Moderate	Consider for Retention	7.2	2.7
16	*Tristaniopsis laurina* (Water Gum)	400	6	3	Good	Good	Co-dominant inclusions, minor. Girdled root. Powerline clearance.	Mature	15-40	Low	Consider for Removal	4.8	2.3
17	*Platanus* x *acerifolia* (London Plane Tree)	850	17	9	Good	Good		Mature	15-40	High	Priority for Retention	10.2	3.1

Tree No.	Species	DBH comb. (mm)	Height (m)	Radial Crown Spread (m)	Health Rating	Structural Condition Rating	Comments	Age Class	ULE (years)	L/Sign	Retention Value	Radial TPZ (m)	Radial SRZ (m)
18	*Platanus* x *acerifolia* (London Plane Tree)	600	19	7	Good	Good	Heavily suppressed. Asymmetrical crown form. Extensively crown lifted. Located within raised planters - height of root crown not known. Possible evidence of root growth under pavement.	Mature	5-15	Moderate	Consider for Retention	7.2	2.7
19	*Platanus* x *acerifolia* (London Plane Tree)	600	19	7	Good	Good	Heavily suppressed. Asymmetrical crown form. Extensively crown lifted. Located within raised planters - height of root crown not known. Possible evidence of root growth under pavement.	Mature	5-15	Moderate	Consider for Retention	7.2	2.7
20	*Platanus* x *acerifolia* (London Plane Tree)	500	19	7	Fair	Fair	Heavily suppressed. Asymmetrical crown form. Extensively crown lifted. Located within raised planters - height of root crown not known. Possible evidence of root growth under pavement.	Mature	5-15	Moderate	Consider for Retention	6.0	2.5
21	*Platanus* x *acerifolia* (London Plane Tree)	650	19	7	Good	Good	Heavily suppressed. Asymmetrical crown form. Extensively crown lifted. Located within raised planters - height of root crown not known. Possible evidence of root growth under pavement.	Mature	5-15	Moderate	Consider for Retention	7.8	2.8
22	*Platanus* x *acerifolia* (London Plane Tree)	650	19	7	Good	Good	Heavily suppressed. Asymmetrical crown form. Extensively crown lifted. Located within raised planters - height of root crown not known. Possible evidence of root growth under pavement.	Mature	5-15	Moderate	Consider for Retention	7.8	2.8

Appendix 3: TPZ/SRZ Plan

METAL CLAD BUILDING

METAL CLAD BUILDING

CAFE

1
DP 631345

BRICK BUILDING

BRICK BUILDING METAL ROOF

3
DP 216854

MARY ANN STREET

WILLIAM HENRY

"IAN THORPE AQUATIC CENTRE"

1
DP801428

1
DP781732

GLASS & METAL BUILDING

3
DP631345

MACARTHUR STREET

SYSTRUM STREET

LOT 12 DP1008171

BRICK BUILDING

1
DP770031

HARRIS

STREET

37
DP822345

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16 T17 T18 T19 T20 T21 T22

TPZ SRZ

Tree Protection Zone Structural Root Zone

0 4 8 12 16 20 24 28 32 36 40

SCALE 1:1000

Powerhouse Ultimo
TPZ SRZ Plan
Client: Create NSW
Date: 26th April 2022
Scale: 1:1000 (A3)

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Appendix 4: Plates

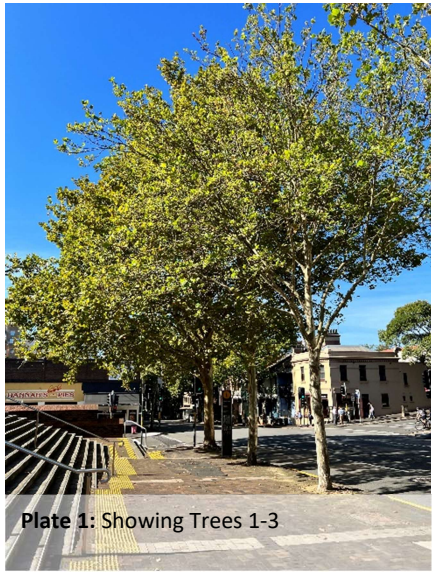

Plate 1: Showing Trees 1-3

Plate 2: Showing displacement of pavement at base of Tree 1

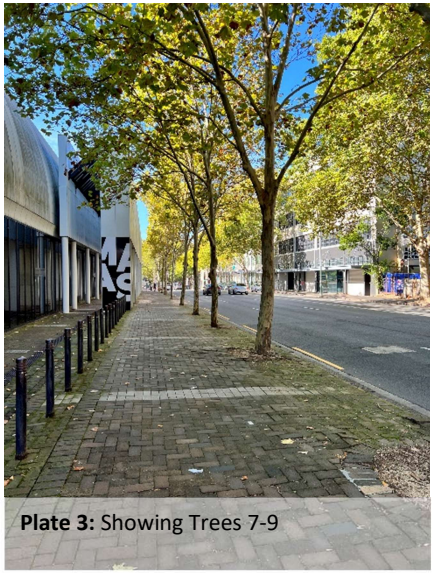

Plate 3: Showing Trees 7-9

Plate 4: Showing Trees 13-15

Plate 5: Showing Tree 16

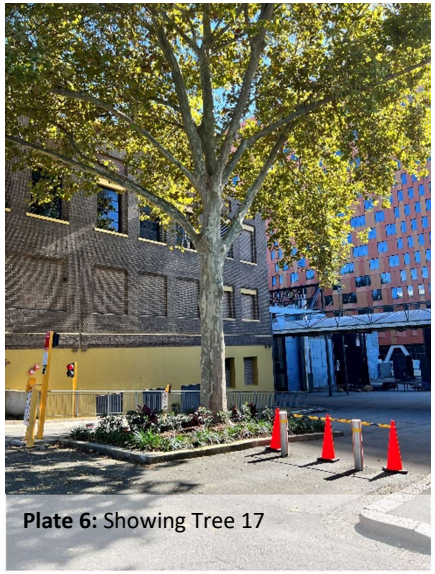

Plate 6: Showing Tree 17

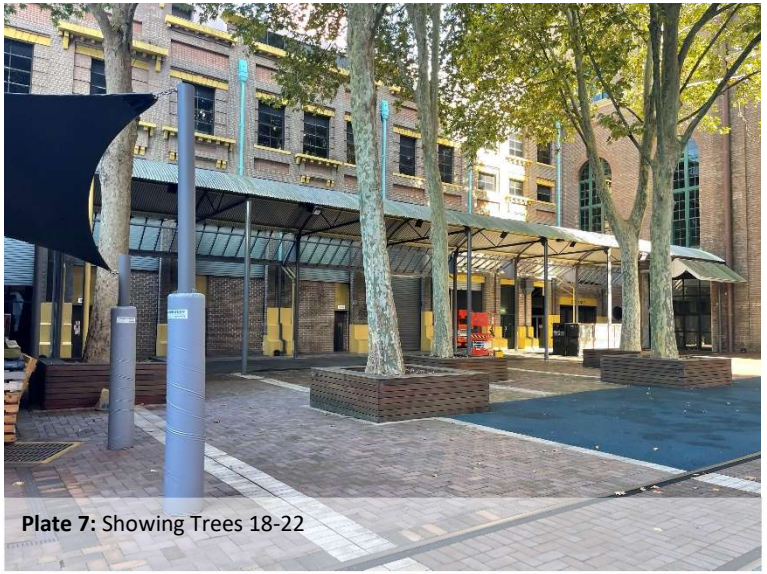

Plate 7: Showing Trees 18-22