

Sydney Metro City & Southwest – Technical Services

Tree Impact Assessment Report Chatswood to Sydenham

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Z	02/05/2018	Marrickville updates
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09	10/09/2019	Update for Marrickville Earthworks and Drainage package
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11	06/04/2020	Update for Marrickville Local Area Works and one tree for the Brand Street works
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Glossary

CBD	Central Business District
CoA	Conditions of Approval
C&SW	City & Southwest
CSSI	Critical State Significant Infrastructure
DCH	Diameter Chest Height
DBH	Diameter Breast Height
DPIE	Department of Planning, Industry and Environment
DRB	Diameter Root Base
DRP	Design Review Panel
EIS	Environmental Impact Statement
LGA	Local Government Area
L/Sc Amen	Landscape Amenity Rating
SM	Sydney Metro
SRZ	Structural Root Zone
TPZ	Tree Protection Zone
TfNSW	Transport for New South Wales

Executive Summary

This Tree Impact Assessment Report includes an assessment of the size and condition of trees impacted, or likely to be impacted, by the Sydney Metro City and Southwest demolition, tunnel excavation, central station and northern corridor work (NCW) construction activities.

This Tree Impact Assessment Report has been a live document, reissued as potential impacts to trees were identified as the project progressed.

Chatswood Summary

The Chatswood site was considered in two (2) parts:

- The Chatswood Dive site (bordered by Pacific Highway, Mowbray Road, and Nelson Street) which is **outside the rail corridor**; and
- The Northern Corridor Works Site (between Brand Street and Chatswood station) which is **inside the rail corridor** and includes trees along Frank Channon Walk

Outside the Rail Corridor

A total of 195 trees were surveyed on the site which is bounded by Pacific Highway, Mowbray Road, Nelson Street and the rail corridor boundary. After consideration of site constraints, the following trees were impacted:

- Trees numbered 50001 to 50021, 50023 to 50063, 50067 to 50075, 50077 to 50083, 50090 to 50102 and 50104 were removed to allow for safe pedestrian access to Mowbray House and to rejuvenate the aesthetic value of the garden associated with the historic value of Mowbray House, TSE site establishment works including (but not limited to) safe crane and piling rig access to the rail corridor, installation of sight screens and noise walls and the establishment of entrances.
- Trees numbered 50142, 50143, 50190, 50191, 50193, 50195 and 50198 were removed for laydown area and access into Frank Channon Walk at the end of Gordon Avenue.
- Tree numbered 50177 was removed to construct kerb and channel and to widen the pavement to create a cul-de-sac as part of DP-S-480 Chatswood Local Area Works.

Trees located adjacent to, or across the road from associated utility works required for tunnelling activities have also been surveyed. The following trees were approved for pruning:

- Tree number 50149 to ensure traffic compliance at a new intersection. The tree branch obstructed the traffic light which is required to be viewed by approaching traffic.
- Trees numbered 50156 to 50163 with all efforts made to avoid significant roots. Conduit was laid around anything greater than 50mm (where possible).
- Minor trimming of trees numbered 50169 and 50174. It is estimated that these Watergums were planted 80 years ago and their significance is recognised.
- Trees numbered 50175, 50176 and 50187 were approved to be pruned to enable utility works in the Ausgrid trench.

Inside the Rail Corridor

Select trees and other vegetation along the eastern side of Frank Channon Walk were required to be removed to create space in the rail corridor which services the Metro and T1 North Shore train lines including the removal of seven (7) trees located at the end of Gordon Avenue which are described in this report.

Tree numbered 50199 has been removed due to poor health and safety concerns.

Artarmon Summary

16 trees are located within the general area of the Artarmon substation site, however no trees were impacted while undertaking works at this location.

Crows Nest Summary

56 trees were surveyed on the Pacific Highway, Hume Street, Clarke Street, Oxley Street and Willoughby Road.

The following trees have been removed:

- Trees numbered 40001 to 40012, 40022 and 40033 to 40036 to allow for access to the piling rig and safe installation of the soldier piles.
- Trees numbered 40037, 40038 and 40041 to allow for safe delivery of bridge beams and the crane set up for the bridge construction and were directly located in the area of the temporary bridge.
- Trees numbered 40039 and 40040 were located within the slew radius of a crane used to unload the bridge beams.

Tree numbered 40024 has been removed by others.

Victoria Cross North Summary

89 trees were surveyed at the Victoria Cross North site which is bounded by Miller Street and McLaren Street. Trees numbered 1007, 1010 to 1012, 1019, 1029, 1031 to 1042, 3020, 3024 to 3027, 3029, 3032, 3033 and 3078 were approved to be pruned in order to allow safe installation of retaining wall and acoustic shed.

The following trees have been removed:

- Trees numbered 1020 to 1023, 1025 to 1028, 1049, 1050, 3073 to 3077 to enable the installation of the proposed acoustic shed and retaining wall

Victoria Cross South Summary

46 trees were surveyed at the Victoria Cross South site which is bounded by Miller Street, Berry Street, and Denison Street. Trees numbered 10007, 10010, 10017 and 10021 were approved to be pruned in order to accommodate the demolition site hoardings.

The following trees have been removed:

- Tree number 10006 to ensure public safety as utility works were required within the structural root zone of the tree which may compromise the future stability of the tree.
- Tree number 10008 to enable vehicular site access for the safe removal of demolition material off site.

- Tree number 10009 to both enable site access during tunnelling activities and to enable stormwater diversion required by design.
- Trees numbered 10012 and 10013 to enable the decommissioning of a substation located in the basement of 181 Miller Street.
- Tree numbers 10026 to 10027 for safe installation of hoarding.
- Trees numbered 10028 to 10034 for both the safe installation of hoarding and to enable construction of the acoustic shed.
- Trees numbered 10019 and 10014 to enable crane setups for the lifting of materials in and out of site.

Blues Point Reserve

12 trees have been surveyed which are located adjacent to, or across the road from associated utility works (Figure 8) required to be undertaken to support construction activities.

In addition non-invasive tree root mapping (Ground Penetrating Radar) has been undertaken on Tree 700000 to ensure its protection during site establishment works. Further to this, a second arborist was engaged to undertake another arboriculture assessment. This assessment informed an application to the Secretary for minor root pruning in accordance with Condition E7 of the Planning Approval. Approval was given on 25 September 2018 by the (then) Department of Planning and Environment.

Barangaroo Summary

237 trees were surveyed within Barangaroo Reserve, and along Hickson Road. The following trees have been removed:

- Trees numbered 20010 to 20020 and 20040 to 20085 were removed to allow for the proposed station box excavation.
- Trees numbered 20021 to 20023, 20028 to 20039 and 20086 to 90211 were removed to establish the TBM support site, the TBM launch route and the trucking route to the spoil barge.
- Trees numbered 20024 and 20025 were removed to install the new stormwater line.
- Trees numbered 20026 and 20027 were removed for the installation of permanent HV lines.

Martin Place Summary

65 trees have been surveyed on Castlereagh Street, Hunter Street, and Elizabeth Street.

- Tree numbers 30005 and 30006 were pruned to enable the erection of the tower crane jib and for material to be unloaded safely from delivery vehicles using the tower crane.
- Following pruning of trees numbered 30013 to 30023 for safe installation of hoarding and scaffolding during demolition, trees 30014, 30016 to 30017 and 30023 were removed as per Revision 07 of this Tree Report and the Tree Report produced on 09 May 2019 by The Ents Tree Consultancy for Lend Lease (<https://www.lendlease.com/martinplacemetro/>). On going pruning of remaining trees may be required by Lend Lease as outlined in The Ents report.
- Tree number 30031 was pruned for the installation of hoarding during demolition.
- Following pruning for the installation of hoarding during demolition, tree number 30038 was removed for the assembly of the tower crane. Removal of this tree reduces impact on trees 30005 and 30006.

- Following pruning for the installation of hoarding during demolition, further pruning of 30028 was undertaken for unloading materials using the tower crane.

Pitt Street Summary

16 Trees were surveyed on Pitt Street, Park Street and Castlereagh Street. An additional tree was identified within the area surrounding the site however, no impacts on this tree are proposed and as such the tree was not surveyed. Works at Pitt Street have not impacted any trees that were surveyed.

Central Station Summary

13 trees were surveyed within the rail corridor at Central station and also along Regent Street. The following trees were removed:

- Trees numbered 1 – 11 within the Central Station rail corridor were removed to allow for safe site access and construction of the Central Metro Station.
- Trees numbered 1 – 2 outside of the rail corridor on Regent Street, Chippendale were removed to construct the Sydney Yard Access Bridge.

Waterloo Summary

19 trees were surveyed at the Waterloo site which is bounded by Botany Road, Raglan Street, and Wellington Street. Pruning of 12 trees numbered 60002, 60004 to 60006, and 60009 to 60013 60016, 60017 and 6019 was approved to allow safe site access and the relocation of the bus stop.

The following trees have been removed:

- Trees numbered 60007 and 60008 to allow for access to the piling rig and safe installation of the bored piles, safe site access and the relocation of the bus stop.
- Trees numbered 60003 and 60015 to allow the installation of a driveways.

Trees numbered 60006, 60016 and 60017 were removed by council due to non-project related damage.

Trees numbered 60001, 60014 and 60018 were approved to be removed however were able to be retained.

Marrickville Summary

287 trees were surveyed at the Marrickville site bounded by Bedwin Road, Railway Parade, Edinburgh Road, Sydney Steel Road, the pedestrian walkway and within the site boundary.

The following trees have been removed:

- Trees numbered 80001 to 8004, 80012, 80013, 80084 to 80095, 80118 to 80259, and 80268 to 80277 were removed to allow for TSE site establishment works; including an internal roadway that enables safe access for semitrailers, installation of site offices and amenities, allowance for Stabling Yard drain diversion, installation of a spoil conveyor system, safe crane and piling rig access to rail corridor, installation of sight screens and noise walls, and installation of a HV powerline that is required for the worksite.
- Trees numbered 80107 to 80109 have been removed to service an egress point.
- Trees numbered 80114 to 80117 were removed to enable building demolition for the purpose of a segment storage area.

- Trees numbers 80016 to 80020, 80024, 80028, and 80030 to 80034, 80036, 80050 to 80058 and 80060 have been removed for the installation of a 3m high hoarding required to secure the earthworks and drainage worksite and to allow for the installation of new perimeter drainage. The positioning of the hoarding in this location will eliminate the need for the hoarding to be relocated whilst providing an additional area for the safe operation of the precast yard operations and haul road.
- Trees numbered 80037 to 80039 have been removed for the safe operations of the precast yard operations and stabling yard.
- Trees numbered 80061 to 80081 have been removed to enable the relocation of the existing culvert along Murray Street and a new culvert system to be constructed, to meet the requirements of the flood modelling design for the project and to enable the safe operation of the precast yard operations and haul road.
- Trees numbered 80009 to 80011, 80096 to 80098 have been removed for the installation of perimeter stormwater drainage.
- Trees numbered 80014 to 80015 and 80040 to 80048 have been removed as they are situated within the site perimeter and will be directly impacted by the earthworks.
- Trees numbered 80021 to 80023, 80035 and 80111 have been removed due to utility installations and kerb works.
- Trees numbered 80025 to 80027, 80029, 80049, 80059, 80082 to 80083 and 80112 to 80113 have been removed for the installation of new box culverts.
- Tree number 80101 was removed due to Local Area Works excavation along Railway Parade.
- Tree number 1 has been removed to enable the relocation of the existing culvert along Murray Street and a new culvert system to be constructed, to meet the requirements of the flood modelling design for the project and to enable the safe operation of the precast yard operations and haul road.
- Tree number 9 has been removed as it was directly impacted by a road crossing for an Ausgrid trench.

The following trees have been approved to be pruned:

- Trees numbered 80099 and 80102 to 80105 were approved to be pruned as branches were encroaching on the road boundary of Bedwin Road and Railway Parade.
- An additional 9 trees numbered 2 to 10 are required to be pruned due to causing safety concerns, obstructing traffic diversions during Local Area Works along Edinburgh Road.

Tree numbers 80007 to 80008, 80100, 80106 and 80110 were approved to be removed but were able to be retained.

All of these trees are outside the rail corridor. No trees impacted at Marrickville were inside the rail corridor.

1. Introduction

1.1. Purpose of Report

This Tree Impact Assessment Report was developed to identify impacts to trees within and around the nominated SM C&SW demolition, tunnel excavation and Northern Corridor Work sites, as part of the planned demolition, site establishment, utilities and tunnelling works.

This report has been prepared to satisfy the requirements of the EIS Conditions of Approval E6. The table below outlines how E6 is being, or will be, met.

Table 1: Requirements of Condition E6

Condition E6	Compliance
The CSSI must be designed to retain as many trees as possible and provide replacement trees such that there a net increase in the number of trees.	Project is being designed as per the EIS and PIR. Any trees that require removing will be replaced such that there is a net increase in the number of trees.
The Proponent must commission an independent, experienced and suitably qualified arborist to prepare a comprehensive Tree Report before removing any trees as detailed in the EIS, as amended by the documents listed in A1. The Tree Report must include:	The arborist is independent, experienced and suitably qualified. Arborists have prepared the specialist arboriculture aspects of this tree report which fulfils the condition requirement.
(a) a description of the condition of the tree(s) it's amenity and visual value;	A visual assessment to note the condition of the trees can be found in the arborist report included in the Appendices.
(b) consideration of all options to avoid tree removal, including relocation of services, redesign or relocation of ancillary components (such as substations, fencing etc.) and reduction of standard offsets to underground services; and	This is undertaken as part of the detailed design and the construction planning processes.
(c) measures to avoid tree removal, minimise damage to, and ensure the health and stability of those trees to be retained and protected. This includes details of any proposed canopy or root pruning, root protection zone, excavation, site controls on waste disposal, vehicular access, materials storage and protection of public utilities.	Trees that are to be retained are protected as per the recommendations of the Tree Impact Assessment Report. During the design process, every effort was made to retain significant tree/s where possible taking into consideration a number of criterion including safety, security, urban design, access, pedestrian flow etc.
In the event that tree removal cannot be avoided, then replacement trees are to be planted within, or in close proximity to the CSSI or other location in consultation with the Relevant Councils and agreed by the Secretary. The size of the replacement trees will be determined in consultation with the relevant Council.	This is undertaken during the development of the Station Design and Precinct Plans.
A copy of the Tree Report must be submitted to the Secretary before the removal, damage and/or pruning of any trees, including those affected by the site establishment works.	This Tree Impact Assessment Report is submitted via the DPIE Portal prior to the pruning or removal being undertaken by the Sydney Metro C&SW project.
All recommendations of the Tree Report must be implemented by the Proponent, unless otherwise agreed by the Secretary.	Tree protection measures are implemented as per the Tree Impact Assessment Report recommendations.
The Tree Report may be prepared for the entire CSSI or separate reports may be prepared for individual areas where tree removal and/or pruning is proposed.	The Tree Impact Assessment Report has been prepared as a live document to both service the works program and to only seek approval for trees in which the impact cannot be mitigated.

Tree surveys have been undertaken by independent, experienced and suitably qualified arborists. The sites assessed in this report include:

- Chatswood site (including NCW)
- Artarmon
- Crows Nest Station site
- Victoria Cross North (corner of Miller and McLaren Streets)
- Victoria Cross South (corner of Miller and Berry Streets)
- Blues Point Reserve
- Barangaroo
- Martin Place
- Pitt Street
- Central Station
- Waterloo
- Marrickville

1.2. Tree Amenity and Visual Value

The landscape amenity (L/Sc Amen.) rating scale has been applied by the independent arborists. The landscape amenity value provided by trees indicates:

- How highly the tree is regarded as part of the local landscape
- How the tree provides and enhances the visual quality of the site
- The importance of the tree's historical and cultural significance
- The provision of habitat and vegetation linkages within development sites, streetscapes, recreation areas or open space

The protection, preservation and enhancement of the landscape amenity, particularly community and residential amenity are a core objective of site design, land use and planning.

Ratings are as follows:

1.2.1. No.1 Rating

- Recognised landmark
- Contributes to high visual amenity
- Major contribution to the sites landscape amenity
- Excellent condition, health, structure and form
- Forms part of a listed Critically Endangered Ecological Community

- Significant introduced native species that has successfully adapted to the site conditions and environment
- Significant introduced evergreen or deciduous species that has successfully adapted to the site conditions and environment
- Indigenous to the locality
- Significant remnant species indigenous to site and locality
- Historic importance
- Cultural importance
- Recorded on significant tree register
- Listed as a threatened species
- Identified habitat tree
- Contributes to the bio-diversity of native vegetation within the locality

1.2.2. No.2 Rating

- Contributes to good visual amenity
- Makes substantial contribution to the sites landscape amenity
- Good/Fair condition, health, structure and form
- Forms part of a listed Critically Endangered Ecological Community
- Indigenous to the locality
- Remnant species indigenous to site and locality
- Introduced native species that has adapted to the site conditions and environment.
- Introduced evergreen or deciduous species that has adapted to the site conditions and environment
- Listed as a threatened species
- Possible habitat tree
- Contributes to the bio-diversity of native vegetation within the locality

1.2.3. No.3 Rating

- Minor contribution to the sites landscape amenity
- Fair/Average condition, health, structure and form
- Average/poor visual amenity
- Indigenous to the locality
- Introduced species
- Forms part of a listed Critically Endangered Ecological Community

- Growth and development suppressed
- Wounds, structural fault extensive storm damage
- Observance of Pests and disease impacting on health and condition.
- Hazardous trees

1.2.4. No.4 Rating

- Little or no contribution to the sites landscape amenity
- Poor/very poor visual amenity
- Growth and development over-mature / suppressed
- Major structural faults that cannot be mitigated
- Recognised invasive or weed species
- Dangerous tree
- Species unsuitable for site conditions and environment
- Species exempt LGA Tree Protection Order/Management Plan

1.3. Exclusions/Limitations

This report has been prepared based on the following exclusions and limitations:

- The tree survey assessments in the appendices are based on the following information:
 - Site survey information that either identifies global co-ordinates of each tree to be assessed, or determines location using digital data (google earth)
 - Arborist tree survey information developed through a visual site inspection and assessment, that identifies key attributes and conditions of the existing trees, including tree protection zones and structural root zones
- The report considers demolition, site establishment, station construction, utility and tunnelling works
- Tree impact assessments are made based on known impacts into the tree protection zones and structural root zones. The assessment considers known branch removal or pruning with consideration to the likely retention or required removal of the trees by Sydney Metro
- This assessment is based on the Australian Standards
- Tree impact assessment is informed by specialist content from independent arborists and focuses on existing trees located within both publicly accessible areas and within project boundaries
- This tree assessment is specific to works associated with the demolition, tunnelling and central station contractors only. Separate tree assessment will be undertaken by others to assess the long-term impacts and mitigation measures (including replacement planting) required due to the permanent works that will be constructed at each site

- The report includes justification of trees to be felled as provided by contractors
- Work to identify locations for compensation planting, to satisfy the EIS conditions of approval E6 are not addressed in this report
- The tree impact assessment has been completed using the information available at the time of writing. Known tree impacts are limited to advice provided by the contractors through verbal and written communications
- Where required, trees removed by others are reconciled retrospectively for the purposes of calculating E6 replanting requirements

2. Chatswood

2.1. Location

The Chatswood dive site is located south of Chatswood station and north of Mowbray Road. It borders the Pacific Highway, Mowbray Road and Nelson Street (Figure 1).



Figure 1: Location plan showing site on the Pacific Highway between Mowbray Road and Nelson Street, in Chatswood

2.2. Existing Environment

2.2.1. Outside Rail Corridor

Various street trees located on the Pacific Highway, Mowbray Road and Nelson Street were surveyed; however, the majority of trees surveyed as part of the works were positioned on the southern and eastern boundaries of the Chatswood dive site.

Associated utility works were also identified as impacting street trees leading to further surveys being undertaken on street trees located along the utility work alignment traversing the Pacific Highway, Mowbray Road, Nelson Street, Orchard Road and Gillam Street.

2.2.2. Inside Rail Corridor

Vegetation inside of the rail corridor comprised of a variety of species located on both the western and eastern sides of the rail track.

2.3. Site Works

2.3.1. Outside Rail Corridor

Site works outside the rail corridor included:

- Excavation and construction of the Chatswood dive structure and tunnel portal to provide support for tunnelling operations. This includes:
 - Spoil storage and removal
 - Pre-cast concrete ring segments storage
 - Water and power supply
 - Installation, commissioning and operation of a grout batching plant
 - Drainage, water treatment and disposal

- Material storage
- Office facilities, work amenities and parking
- Launching and ongoing support of two (2) TBMs
- Supporting the realignment of the T1 North Shore Line between Chatswood Station and Brand Street, Artarmon to accommodate new metro tracks
- Supporting the construction of approximately 250 metres of new, above-ground metro tracks
- Supporting the fit-out of the tunnel rail systems
- Installing rail dampers and deck adsorption to provide mitigation for operational train noise
- Construction of the tunnel portal
- Construction of a fire protection wall along the entire length of the dive structure to provide separation between the two (2) metro tracks
- Utility works servicing both construction and operational activities
- Local area works

Note: Some works outside the rail corridor encroached into the rail corridor between Nelson Street and Mowbray Road.

2.3.2. Inside Rail Corridor

Works inside the rail corridor, otherwise known as the Northern Corridor Works (NCW) includes:

- Construction of retaining walls
- Corridor widening
- Slewing of tracks
- General railway works
- Construction of noise barriers
- Bridgeworks and drainage works associated with the widening of the corridor
- Frank Channon walk (FCW) footing construction
- Plant access via Ellis Street
- Piling mats, 'boxout' and drill footings
- Alterations to overhead wiring layout
- Drainage/attenuation tank

2.4. Tree Impact Assessment

195 trees were surveyed both outside the rail corridor within an area bounded by the Pacific Highway, Mowbray Road and Nelson Street, and also within sections of the rail corridor such as along Frank Channon walk.

Trees outside the rail corridor that have been assessed for known impacts are described below and indicated in Appendix A.

Trees inside the rail corridor have been described in general terms only within vegetation reports also included in Appendix A.

2.4.1. Outside Rail Corridor

Dive Site

The following trees within the dive site were removed due to site constraints:

- Trees numbered 50001 to 50021, 50023 to 50063, 50067 to 50075, 50077 to 50083, 50090 to 50102 and 50104 were removed to allow for safe pedestrian access to Mowbray House and to rejuvenate the aesthetic value of the garden associated with the historic value of Mowbray House, TSE site establishment works including (but not limited to) safe crane and piling rig access to the rail corridor, installation of sight screens and noise walls and the establishment of entrances. Detailed justification for the removal of these trees is provided in the table below.

Trees numbered 50022, 50064 to 50066, 50076 and 500103 were approved to be removed however; they were able to be retained.

Local Area and Utility Works

Trees located adjacent to, or across the road from associated utility works required for tunnelling activities (Figure 2) were surveyed and numbered from 50149 to 50187. Where ever possible impact to trees has been avoided, however approval was granted to prune the following trees:

- Tree number 50149 to ensure traffic compliance at a new intersection. The Tree in question restricts the traffic light which is required to be viewed by approaching traffic.
- Trees numbered 50156 to 50163 with all efforts to be made to avoid significant roots. Conduit was laid around anything greater than 50mm (where possible).
- Two Watergums planted approximately 80 years ago numbered 50169 and 50174. Impacts were avoided where possible due to the significance of these trees.
- Trees numbered 50175, 50176 and 50187 to enable utility works in the Ausgrid trench.
Tree numbered 50177 is required to be removed to construct kerb and channel and to widen the pavement to create a cul-de-sac as part of DP-S-480 Chatswood Local Area Works.

These trees are highlighted in Figure 2. Justification for impacts is provided in the table below.

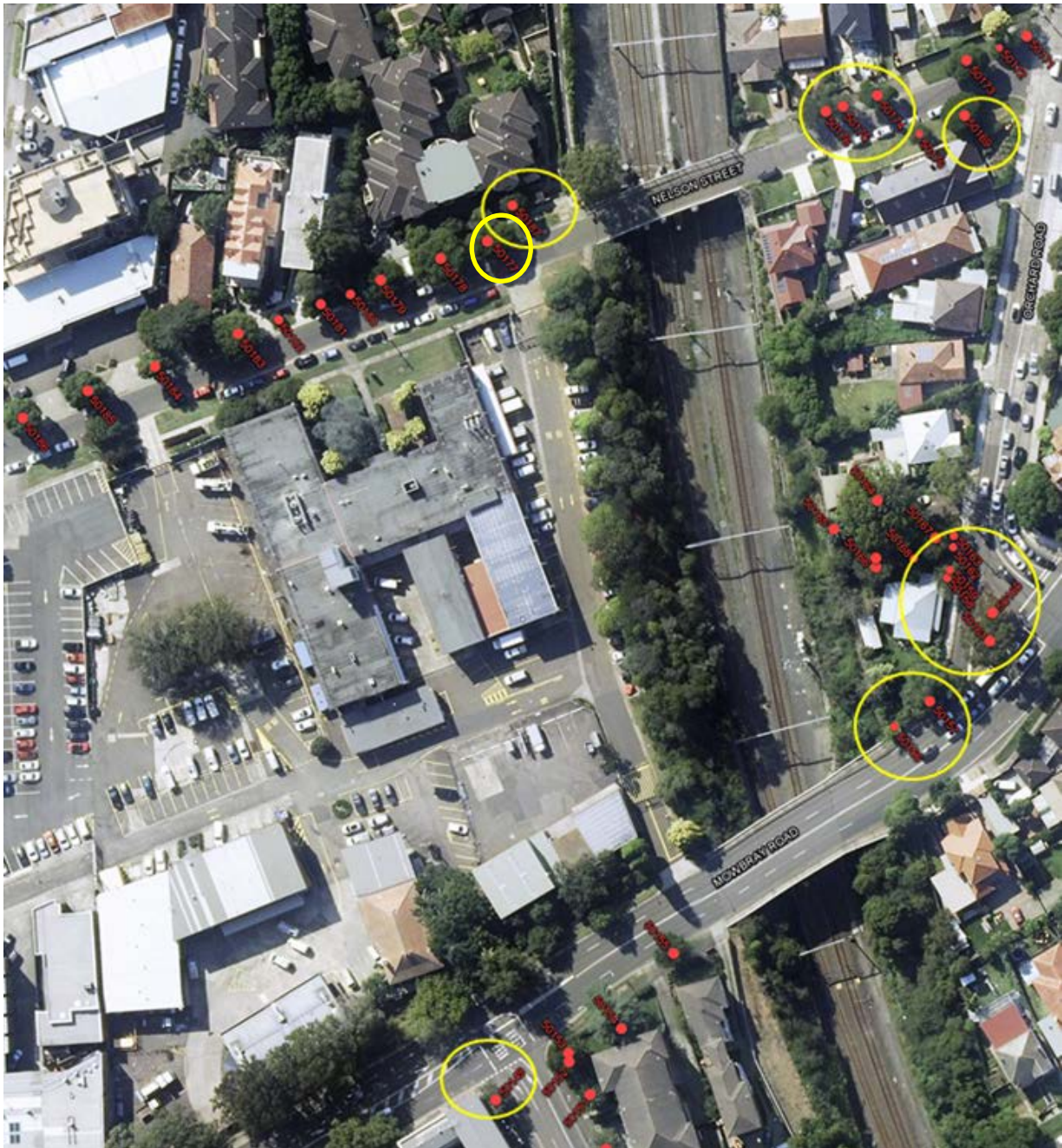


Figure 2: Plan showing tree locations along the utilities route and at the cul-de-sac

2.4.2. Inside Rail Corridor

Rail Corridor Widening

Select trees and other vegetation along the eastern side of Frank Channon Walk have been removed to create space in the rail corridor to service the Metro and T1 North Shore train lines and to also install the ground support structures. New replacement noise walls are being installed to the west of the existing noise wall within the garden bed to mitigate impacts to surrounding receivers. Except for seven (7) trees located at the end of Gordon Avenue which were required to be removed to enable access into Frank Channon Walk for the installation of ground support structures as described in the EIS,

vegetation removal for Rail Corridor Widening was conducted under Sydney Trains EPL and is described in the Sydney Metro City & Southwest Tree Impact Assessment Report Northern Corridor Works dated 03 September 2018.

Brand Street Works

Tree numbered 50199 has been removed due to poor health and safety concerns as indicated in the Appendix A 5 arborist report (Arborist report, Vegetation Management Consultants, Dated 20-Dec 2019). Removal of this tree was required as more than 50% of the crown has died and the remainder appears to be affected by borer and poor health and structure. Tree removal was requested by the resident who indicated it presented a safety risk for her family and also the site workers.

Refer to Appendix A for the arborists reports, including a general description of the vegetation referred to within the rail corridor. All existing trees retained within the site area are protected in accordance with Australian Standard AS 4970 'Tree protection in development sites' to avoid/ minimise potential impacts during the proposed works.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification	
Between Nelson Street, the Rail Corridor and Mowbray Road	Willoughby Council	50001	Lophostemon confertus	Brushbox	13	12	996	Rev I, 25-09-2017	Remove	Removed	Removal to allow for safe crane access to the rail corridor works and safe installation of site screens that have a height of three (3)m	
		50002			10.5	9	370		Remove	Removed		
		50003			9	7	210 226		Remove	Removed		
		50004			9	9	298		Remove	Removed		
		50005			10	12	442		Remove	Removed		
		50006	Eucalyptus punctata	Grey gum	13	7	295		Remove	Removed		
		50007	Lophostemon confertus	Brushbox	7.5	10	344		Remove	Removed		
		50008			8	10	480		Remove	Removed		
		50009	Callistemon viminalis	Weeping bottlebrush	3.5	6	100 117		Remove	Removed		Removal to allow for safe crane access to the rail corridor works and the piling rig which is required for the excavation of the dive site
		50010			6.5	8	3		Remove	Removed		Removal to allow for the installation of the noise wall along Mowbray Road that has a height of four (4)m. Most of the trees are located along the boundary line and are either found along the noise wall alignment or they impede access to machinery to install the noise wall
Mowbray Road	Willoughby Council	50011	Callistemon salignus	Willow bottlebrush	7	6.5	160	Remove	Removed	Removal to allow for safe crane access to the rail corridor works and the piling rig which is required for the excavation of the dive site		
		50012	Syagrus romanzoffiana	Cocos palm	10	4	249	Remove	Removed	Removal to allow for safe pedestrian access to Mowbray House and to rejuvenate the aesthetic value of the garden associated with the historic value of Mowbray House.		
		50013			7	4	125	Remove	Removed			
		50014			11	4.5	248	Remove	Removed			
		50015			8	5	284	Remove	Removed			
		50016			8	5	525	Remove	Removed			
		50017	Achontophoenix alexandrae	Alexander palm	7	5	232	Remove	Removed			
		50018			11	5.5	205	Remove	Removed			
Mowbray Road	Willoughby Council	50019	Phoenix canariensis	Canary Island date palm	8	5.5	392	Remove	Removed		Removal to allow for safe pedestrian access to Mowbray House and to rejuvenate the aesthetic value of the garden associated with the historic value of Mowbray House.	
		50020	Callistemon viminalis	Weeping bottlebrush	7	6	123	Remove	Removed			
		50021	Syagrus romanzoffiana	Cocos palm	7	4	202	Remove	Removed			
		50022	Howea forsteriana	Kentia palm	5.5	3	131	Remove	Retained			
		50023	Melaleuca quinquenervia	Broad leaf paper-bark	14	12	399	Remove	Removed	Tree 50023 is located between two (2) substations. The substation location to the east was chosen by Ausgrid. This has a requirement to be accessible from Mowbray road and also requires four (4) concrete piles to be bored. The location of the internal substation to the west has also been chosen as the site is very constrained. Both substations require a new concrete slab to be installed which requires the soil to be free of roots. Given the constraints of the site and locations of these two (2) substations, the hoarding cannot be moved to preserve the trees. The hoarding also requires access for a drill rig to install the supporting poles as part of the installation. All these factors contribute to the justification of the tree removal.		
		50024	Eucalyptus deanei	Mountain blue gum	27.6	18	1340	Remove	Removed	Trees 50024 to 50030 – These trees are located along the existing boundary of the site and adjacent to an existing entrance.		
		50025	Corymbia gummifera	Red blood wood	18	17	590	Remove	Removed			
		50026	Ceratopetalum gummiferum	NSW Christmas bush	5	4	80	Remove	Removed	The site entrance will be widened and strengthened to allow for the increase in size and frequency for trucks entering the site. This process will involve boxing out and excavating the current entrance way and will affect the SRZ and TPZ of 50024 and 50030.		
		50027			4	2	116	Remove	Removed			
		50028	Corymbia citriodora	Lemon scented gum	16	13	522	Remove	Removed	In addition, there is also a proposed substation to the north of the trees and boundary line. This location cannot be moved as it is adjacent to a steel fabrication facility immediately to the north which requires access for machinery. The concrete slab to be installed directly clashes with the locations of 50024, 50025 and 50030.		
50029	Omalanthus populifolius	Native bleeding heart	4.5	4	118	Remove	Removed					
50030	Ceratopetalum gummiferum	NSW Christmas bush	4.5	2.5	145	Remove	Removed	Given the constraints of the site and locations of these two (2) substations, the hoarding cannot be moved to preserve the trees. The hoarding also requires access for a drill rig to install the supporting poles as part of the installation. All these factors contribute to the justification of the tree removal.				
Mowbray Road	Willoughby Council	50031	Camellia japonica	Camellia	4	4	Multi stem	Remove	Removed	Removal to allow for the establishment of the site designated truck access route.		
Between Nelson Road and Mowbray Road	Willoughby Council	50032	Ulmus procera	English elm	15.5	15	1280	Remove	Removed	Removal for the installation of the concrete base required for the proposed water treatment plant.		
		50033	Ulmus procera	English elm	13.8	15	880	Remove	Removed			
Pacific Highway	Willoughby Council	50034	Cinnamomum camphora	Camphor laurel	6.5	6.5	Multi stem	Remove	Removed	Removal to allow for the installation of the 3m tall hoarding. These trees are located along the boundary line and are either found along the hoarding alignment or impeding access to machinery to install the hoarding. In addition, they are also located in the area where the installation of the concrete base is required for the proposed spoil storage shed which is required in this location due to site constraints and site layout for efficient truck spoil loading and removal.		
		50035	Eucalyptus microcorys	Tallow wood	10	7	214	Remove	Removed			
Mowbray Road	Willoughby Council	50036	Chamaecyparis obtusa cv.	Crippsii-Golden cypress	8	6	2 x 205 2 x 220	Remove	Removed	Removal to allow for the installation of the noise wall along Mowbray Road that has a height of four (4) m. Most of the trees are located along the boundary line and are either found along the noise wall alignment or they impede access to machinery to install the noise wall. Trees numbered 50046 to 50048 also need to be removed to allow for the new alignment of the HV powerline and optical fibre as part of the relocation works from Mowbray Road to Nelson St. Relocating the HV powerline and optical fibre is required during site		
		50037	Cupressus torulosa	Bhutan cypress	16	4	428	Remove	Removed			

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
		50038			16.5	4	485	Rev I, 25-09-2017	Remove	Removed	establishment so that the existing utilities can be made redundant and allow for the dive excavation and tree removal process from the rail possession
		50039	Callistemon salignus	Willow bottlebrush	8	4	212		Remove	Removed	Removal to allow for the installation of the noise wall along Mowbray Road that has a height of four (4) m. Most of the trees are located along the boundary line and are either found along the noise wall alignment or they impede access to machinery to install the noise wall. Trees numbered 50046 to 50048 also need to be removed to allow for the new alignment of the HV powerline and optical fibre as part of the relocation works from Mowbray Road to Nelson St. Relocating the HV powerline and optical fibre is required during site establishment so that the existing utilities can be made redundant and allow for the dive excavation and tree removal process from the rail possession
		50040	Pittosporum undulatum	Native daphne	6.5	5	133		Remove	Removed	
		50041	Quercus robur	English oak	11	14	620		Remove	Removed	
		50042	Pittosporum undulatum	Native daphne	4	3	87		Remove	Removed	
		50043			6.5	5	130		Remove	Removed	
		50044	Camellia japonica	Camellia	6	4	50		Remove	Removed	
		50045	Pittosporum undulatum	Native daphne	7.5	7	178		Remove	Removed	
		50046	Washingtonia robusta	Mexican fan palm	5.5	4	284		Remove	Removed	
		50047	Pittosporum undulatum	Native daphne	6	6	233		Remove	Removed	
		50048	Washingtonia robusta	Mexican fan palm	5	4	305		Remove	Removed	
50049	Lophostemon confertus	Brushbox	8.5	6	195	Remove	Removed				
Mowbray Road	Willoughby Council	50050	Casuarina cunninghamiana	River she oak	18	12	655	Rev O, 29-11-2017	Remove	Removed	Removal to allow for the new alignment of the HV powerline and optical fibre as part of the relocation works from Mowbray Road to Nelson St. Relocating the HV powerline and optical fibre is required during site establishment so that the existing utilities can be made redundant and allow for the dive excavation and tree removal process from the rail possession
		50051	Washingtonia robusta	Mexican fan palm	8	6	300	Rev I, 25-09-2017	Remove	Removed	Removal to allow for the establishment of the Mowbray Road eastern site driveway and entrance.
		50052			3	4	230		Remove	Removed	
		50053			3	3.5	270		Remove	Removed	
		50054	Acer negundo	Box elder	6.5	6	162		Remove	Removed	
		50055	Washingtonia robusta	Mexican fan palm	18	5	355		Remove	Removed	
		50056	Camellia japonica	Camellia	5.5	3	60		Remove	Removed	
		50057	Howea forsteriana	Kentia palm	7	4	155		Remove	Removed	
		50058	Phoenix reclinata	Senegal date palm	5.5	3	188		Remove	Removed	
		50059	Howea forsteriana	Kentia palm	9	4	152		Remove	Removed	
		50060	Syagrus romanzoffiana	Cocos palm	5.5	4	147		Remove	Removed	
		50061	Acer negundo	Box elder	7	5	135		Remove	Removed	
		50062			4	3.5	85		Remove	Removed	
		50063	Castanospermum australe	Black bean	10	8	107		Remove	Removed	
		50064	Michelia figo	Portwine magnolia	5	6	90		Remove	Retained	
		50065	Syagrus romanzoffiana	Cocos palm	14	6	323		Remove	Retained	
		50066	Stenocarpus sinuatus	Fire wheel tree	15	7	350 530		Remove	Retained	
		50067	Archontophoenix alexandrae	Alexander palm	12	4	3 x 200 278		Remove	Removed	
		50068			11	6	207		Remove	Removed	
50069	12	5.5			318	Remove	Removed				
Mowbray Road		50070	Archontophoenix alexandrae	Alexander palm	11	4	165 2 x 200 238	Remove	Removed	Trees numbered 50070 and 50071 require removal to allow for safe pedestrian access to Mowbray House and to rejuvenate the aesthetic value of the garden associated with the historic value of Mowbray House.	
		50071	Melia azedarach	White cedar	12	12	430	Remove	Removed		
		50072	Camellia sasanqua	Sasanqua	6	5	122 155	Remove	Removed		
		50073	Acer negundo	Box elder	6	9	240	Remove	Removed		
		50074			8	12	234 250 282	Remove	Removed		
		50075			8.5	9	450	Remove	Removed		
		50076	Melia azedarach	White cedar	8	7	197	Remove	Retained	Removal to allow for safe pedestrian access to Mowbray House and to rejuvenate the aesthetic value of the garden associated with the historic value of Mowbray House. AMBS will be engaged to assess and provide a statement addressing any tree removal proposed within the heritage curtilage of Mowbray House before any removal occurs.	

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Mowbray Road		50077	Liquidambar styraciflua	Sweet gum	13	4	212	Rev I, 25-09-2017	Remove	Removed	Trees 50077 and 50078 are located between two (2) substations. The substation to the east of the trees was chosen by Ausgrid. This has a requirement to be accessible from Mowbray road and also requires four (4) concrete piles to be bored. The location of the internal substation to the west has also been chosen as the site is very constrained. Both substations require a new concrete slab to be installed which requires the soil to be free of roots. Given the constraints of the site and locations of these two substations, the hoarding cannot be moved to preserve the trees. The hoarding also requires access for a drill rig to install the supporting poles as part of the installation. All these factors contribute to the justification of the tree removal. In addition trees numbered 50079 to 50081 are also located in the area where the installation of the concrete base is required for the new substation. Trees numbered 50082 and 50083 are located where the Mowbray Road western site driveway and entrance has been designed.
		50078	Lagerstroemia indica	Crepe Myrtle	6	4	115 140 155		Remove	Removed	
		50079	Ilex aquifolium	European Holly	5	7.5	185 192		Remove	Removed	
		50080	Liquidambar styraciflua	Sweet gum	19	13	835		Remove	Removed	
		50081	Liquidambar styraciflua	Sweet gum	16.8	12	640		Remove	Removed	
		50082			18	17.5	880		Remove	Removed	
		50083	Magnolia grandiflora	Bull Bay magnolia	5	7	97 132 280		Remove	Removed	
Pacific Highway		50084	Cupaniopsis anacardioides	Tuckeroo	5.5	9	2 x 185 210	Rev K, 27-10-17	Prune	Retained	Trees numbered 50084 to 50089 may require trimming to the site boundary as some branches may be encroaching on the hoarding alignment
		50085			4.6	6	205		Prune	Retained	
		50086			4.5	6.5	146 180		Prune	Retained	
		50087			4.6	7.2	240		Prune	Retained	
		50088			4.5	7.5	214		Prune	Retained	
		50089			6	7	166		Prune	Retained	
Nelson Street	Willoughby Council	50090	Lagerstroemia indica	Crepe Myrtle	69.5	10	Multi stem	Rev I, 25-09-2017	Remove	Removed	Removal to allow for the new alignment of the HV powerline as part of the relocation works from Mowbray Road to Nelson St. Relocating the HV powerline and optical fibre is required during site establishment so that the existing utilities can be made redundant and allow for the dive excavation.
		50091	Callistemon viminalis	Weeping bottlebrush	8	5	3 x 110 2 x 140 164	Rev H, 14-09-17	Remove	Removed	Removal to ensure that the demolition of the buildings do not result in destabilisation of the trees once the structure is removed. In addition trees numbered 50091 to 50093 will be removed for the installation of the concrete base required for the proposed daytime spoil storage shed which is required in this location due to site constraints and site layout for efficient truck spoil loading and removal. Trees numbered 50094 to 50097 will be removed to allow for the installation of the 5m tall noise wall. These trees are located along the boundary line and are either found along the noise wall alignment or impeding access to machinery to install the noise wall.
		50092			8	5	2 x 100 2 x 10		Remove	Removed	
		50093			6	5	3 x 80 2 x 50		Remove	Removed	
		50094			4.5	5	57 86		Remove	Removed	
		50095			8	5	137 164		Remove	Removed	
		50096			8	5	90 190 210		Remove	Removed	
		50097	Chamaecyparis obtusa cv.	Crippsii-Golden cypress	10.5	8	2 x 100 5 x 200 300	Remove	Removed		
		50098			12	7	3 x 120 250 3 x 325	Remove	Removed		
		Nelson Street		50099	Cedrus atlantica	Atlantic cedar	13	13	498	Rev I, 25-09-2017	Remove
50100	Chamaecyparis obtusa cv.			Crippsii-Golden cypress	11.5	6	254	Remove	Removed		
50101	Chamaecyparis obtusa cv.			Crippsii-Golden cypress	11.5	5	207 218	Remove	Removed		
50102		11	7		86 2 x 140 2 x 250	Remove	Removed				
Mowbray Road		50103	Elaeocarpus reticulatus	Blueberry ash	8	3	80	Remove	Retained		
Between Nelson Street, the Rail Corridor and Mowbray Road		50104	Lophostemon confertus	Brushbox	9	12	707	Remove	Removed	Removal to allow for the installation of the 5m tall noise wall. This tree is located along the boundary line/noise wall alignment and impedes access for installation of the noise wall.	
Hampden Road to Nelson Street (utilities)		50149	Callistemon citrinus	Crimson Bottlebrush	8.5	6	180 310	Rev R, 30-01-18, Rev 05, 04-02-19	Prune	Retained	This tree is required to be trimmed for traffic compliance at a new intersection. The Tree in question will hide the lantern which requires to be seen by approaching traffic. The height of the lantern results in the signal light being obstructed by branches/leaves. This is not in accordance with RMS Standards.
		50150	Callistemon viminalis	Weeping Bottlebrush	4.5	6	190 260		Retain	Retained	
		50151	Phoenix canariensis	Canary Is. Date Palm	8	6	700		Retain	Retained	
	Willoughby Council	50152	Cinnamomum camphora	Camphor Laurel	10	10	270 350	Retain	Retained		

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Hampden Road to Nelson Street (utilities)		50153	Lagerstroemia indica	Crepe Myrtle	7	11	120 130 180		Retain	Retained	
		50154	Cedrus deodara	Himalayan Cedar	14	17	715		Retain	Retained	
		50155	Callistemon salignus	White Bottlebrush			210 400 430		Retain	Retained	
		50156	Robinia pseudoacacia 'Frisia'	Golden Robinia	5	4	150	Rev 02, 21-09-18	Prune	Retained	Trees numbered 50156 to 50163 have the potential to be pruned to enable necessary trenching for utilities relocation. The trenching alignment is pre-determined as alignments interface with existing cabling and joint pits. All efforts will be made to avoid significant roots (>50mm) including laying conduits around root structures.
		50157	Shinus areira	Pepper-corn Tree	11	16	600		Prune	Retained	
		50158	Hakea salicifolia	Willow-leaved Hakea	7	5	200 250		Prune	Retained	
		50159	Pittosporum undulatum	Sweet Pittosporum	7	8	250		Prune	Retained	
		50160	Eucalyptus elata	River Peppermint	10	10	555		Prune	Retained	
		50161	Corymbia maculata	Spotted Gum	13.5	13	450		Prune	Retained	
		50162	Callistemon citrinus CV.	Crimson Bottlebrush	5	4	75 90 120		Prune	Retained	
		50163	Callistemon citrinus CV.	Crimson Bottlebrush	5	5	90		Prune	Retained	
		50164	Cinnamomum camphora	Camphor Laurel	17	20	480 620 1200		Retain	Retained	
		50165	Phoenix canariensis	Canary Is. Date Palm	10	6.5	700		Retain	Retained	
		50166	Lagerstroemia indica	Crepe Myrtle	9	7	90 120 140	Rev 03, 10-10-18	Retain	Retained	
		50167	Lagerstroemia indica	Crepe Myrtle	10	7	100 120 150 190		Retain	Retained	
		50168	Bauhinia galpinii cv.	Orchid Tree	5	6	150		Retain	Retained	
		50169	Tristanopsis laurina	Water Gum	8	9	230 260 320 400	Rev T, 21-02-18	Prune	Retained	The majority of the works can avoid pruning tree 50169 however there is a possibility AusGrid will need to do some minor trimming to excavate the AusGrid joint bay (shown below). The location of the joint bay has been determined by AusGrid. Consideration was given to changing the location in order to minimise community impact but due to space restrictions in the area and the position of the existing network it could not be moved.
		50170	Tristanopsis laurina	Water Gum	5	6	95 135 140 150	Rev 03, 10-10-18	Retain	Retained	
		50171	Callistemon viminalis	Weeping Bottlebrush	6.5	7	100 120 150 160		Retain	Retained	
		50172	Tristanopsis laurina	Water Gum	4	4	190		Retain	Retained	
50173	Tristanopsis laurina	Water Gum	8	11	200 280 295	Retain	Retained				
50174	Tristanopsis laurina	Water Gum	7.5	7	210 270 320	Rev T, 21-02-18	Prune	Retained	Trees required to be pruned to enable utilities works in the Ausgrid trench.		
50175	Callistemon viminalis	Weeping Bottlebrush	7.5	7	90 105 145 170	Rev T, 21-02-18	Prune	Retained	Trees required to be pruned to enable utilities works in the Ausgrid trench.		
50176	Acacia decurrens	Black Wattle	7.5	11	230		Prune	Retained			
Hampden Road to Nelson Street (utilities)	Willoughby Council	50177	Tristanopsis laurina	Water Gum	9.5	12	255 300 360	Rev 8, 05-08-19	Remove	Retained	Tree required to be removed to construct kerb and channel and undertake pavement widening to create a cul-de-sac to enable bridge demolition works. Attempts have been made to redesign this cul-de-sac to avoid removing the tree however the reduced radius was not accepted by Council. The current design (including tree removal) has been approved by both Willoughby Council and the Independent Certifier.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
		50178	<i>Tristaniaopsis laurina</i>	Water Gum	10.5	12	280 320 300 390		Retain	Retained	
		50179	<i>Tristaniaopsis laurina</i>	Water Gum	9.5	10	260 270 320		Retain	Retained	
		50180	<i>Tristaniaopsis laurina</i>	Water Gum	3	3	50		Retain	Retained	
		50181	<i>Tristaniaopsis laurina</i>	Water Gum	7	7	250 335		Retain	Retained	
		50182	<i>Tristaniaopsis laurina</i>	Water Gum	4	2	100		Retain	Retained	
		50183	<i>Tristaniaopsis laurina</i>	Water Gum	10.5	12	260 280 440		Retain	Retained	
		50184	<i>Lophostemon confertus</i>	Brush Box	10.5	9	320		Retain	Retained	
		50185	<i>Lophostemon confertus</i>	Brush Box	11	11	300 450		Retain	Retained	
		50186	<i>Lophostemon confertus</i>	Brush Box	10.5	8	550		Retain	Retained	
		50187		<i>Triadica sebifera</i> (syn. <i>Sapium sebiferum</i>)	Chinese tallow	7.5	8		300	Rev V 05-03-18	Prune
Rail Corridor - Gordon Ave		50142	<i>Casuarina cunninghamiana</i>	River Oak	17.5	12	525	Rev R, 30-01-18	Remove	Removed	
		50143	<i>Casuarina cunninghamiana</i>	River Oak	17	12	375 530		Remove	Removed	
		50188	<i>Harpullia pendula</i>	Tulipwood	6	5	140	Rev 01 21-08-18	Retain	Retained	
		50189	<i>Harpullia pendula</i>	Tulipwood	9.5	5.5	175		Retain	Retained	
		50190	<i>Harpullia pendula</i>	Tulipwood	7.5	9	240		Remove	Removed	
		50191	<i>Harpullia pendula</i>	Tulipwood	8.5	5	250		Remove	Removed	
		50192	<i>Harpullia pendula</i>	Tulipwood	9.5	9	310		Retain	Retained	
		50193	<i>Calistemon viminalis</i>	Weeping Bottle Brush	7	7	120 125 150		Remove	Removed	Requires removal for access of piling rig and associated works
		50194	<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark	8	7	365	Remove	Removed	Requires removal for access of piling rig and associated works	
		50195	<i>Pittosporum undulatum</i>	Sweet Pittosporum	505	5	150	Remove	Removed	Requires removal for access of piling rig and associated works	
50196	<i>Acacia saligna</i>	Golden Wreath Wattle				Remove	Removed	Dead wattle. Requires removal for access of piling rig and associated works			
50197	<i>Harpullia pendula</i>	Tulipwood	9	7	100 190 29	Remove	Removed	Requires removal for access of piling rig and associated works			
50198	<i>Acacia saligna</i>	Golden Wreath Wattle	9	6	250	Remove	Removed	Requires removal for access of piling rig and associated works			
Hampden Road to Nelson Street - 79 Hampden Road	Willoughby Council	50199	<i>Pittosporum undulatum</i>	Sweet Pittosporum	14	14	525	Rev 11 03-04-20	Retain	Removed	Approved for removal under arborist report (Arborist report, Vegetation Management Consultants, Dated 20-Dec 2019), due to poor health and safety implications for the public and site workers.

3. Artarmon

3.1. Location

The Artarmon site is located on the corner of Whiting Street and Reserve Road, Artarmon (Figure 3). This is a small site with limited works which involved the excavation of a substation to service operations.

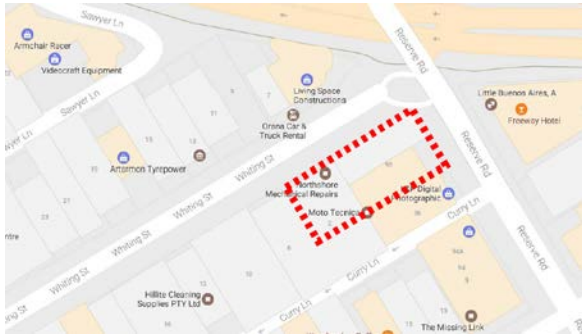


Figure 3: Location plan showing the site on the corner of Whiting Street and Reserve Road, in Artarmon

3.2. Existing Environment

No trees are located within the site itself however several small street trees are growing on Whiting Street, with a variety of taller trees located on Reserve Road. Refer to Appendix B for further detail.

3.3. Site Works

Construction of the Artarmon substation involved:

- Removal of existing buildings
- Excavation of a vertical shaft to the tunnels below
- Reinforcement and lining of the shaft
- Construction of above-ground components
- Installation of electrical equipment

3.4. Tree Impact Assessment

No impacts proposed to the trees located within the general area of the Artarmon site occurred as a result of executing the scope noted in Section 3.3.

4. Crows Nest

4.1. Location

The Crows Nest site is located on the western fringe of the Crows Nest village, bounded by the Pacific Highway and Clarke Lane (eastern side of the Pacific Highway), and Oxley Street (south of Hume Street) (Figure 4).

Construction activities are being undertaken within two (2) separate construction zones which are split by Hume Street.

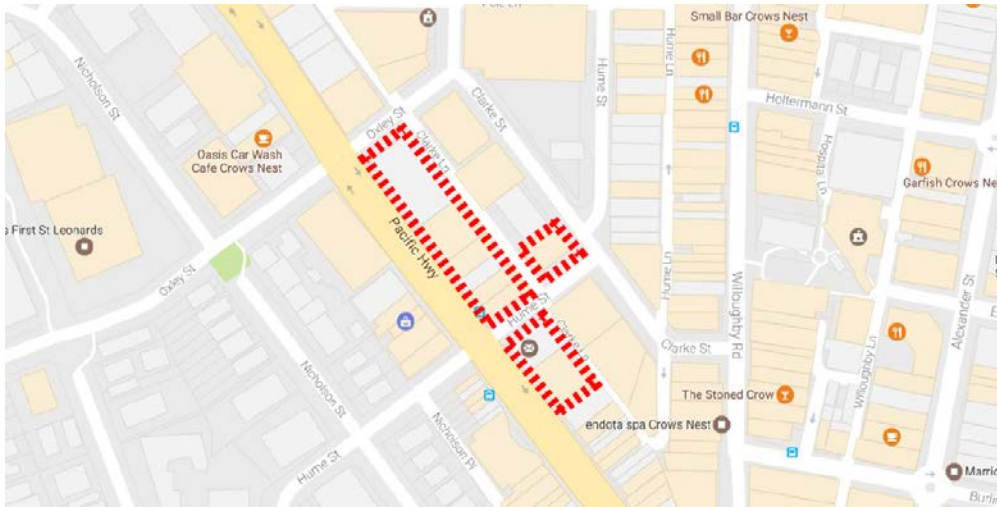


Figure 4: Location plan showing site on the Pacific Highway between Hume Street and Oxley Street, in Crows Nest

4.2. Existing Environment

No trees are located within the site itself, however street trees were along Pacific Highway, Oxley Street, Clark Street and Hume Street road reserve surrounding the site boundary. Refer to Appendix C for further detail in regards to these trees.

4.3. Site Works

Demolition, site access and construction activities at this site involved:

- Demolition of buildings
- Site establishment included the construction of driveways, installation of hoarding and site deliveries for the temporary Hume Street bridge
- Installation of bored soldier piles around the site perimeter to enable bulk excavation
- Bulk excavation and spoil removal

4.4. Tree Impact Assessment

56 trees were surveyed on the Pacific Highway, Hume Street, Clarke Street, Oxley Street and Willoughby Road. The site was assessed and designed to minimise the removal of trees wherever possible, however after consideration of the site constraints the following trees were removed:

- Trees numbered 40001 to 40012, 40022 and 40033 to 40036 have been removed to allow for access to the piling rig and safe installation of the soldier piles
- Trees numbered 40037 to 40038 and 40041 have been removed to allow for safe delivery of bridge beams and the crane set up for the bridge construction and were directly located in the area of the temporary bridge
- Trees numbered 40039 and 40040 were located within the slew radius of a crane used to unload the bridge beams

Tree numbered 40024 has been removed by others.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Pacific Highway	North Sydney Council	40001	Platanus acerifolia	London plane	15	10	479	Rev H, 14-09-17	Remove	Removed	These trees are required to be removed due to the installation of the bored soldier piles which will allow for the safe excavation of the station box. The hoarding erected by the demolition contractor will be progressively taken down to allow for access to the drill rig due to the location of the piles along the boundary of the site. Temporary fencing will be used to extend the exclusion zone into the footpath required for the drill rig as it is operating. The main operation of the drill rig mast requires a high clearance for movement in its operation. The trees in this location will need to be pruned heavily due to sensitive connections via cables and hoses at the top of the mast. The extent of the pruning required would remove half the canopy which will most likely affect the health of the tree. The heavy pruning will also pose a large safety risk by placing the majority of the tree canopy over the Pacific Highway and Hume St.
		40002			15	15	543		Remove	Removed	
		40003			13	8	325		Remove	Removed	
		40004			14	15	532		Remove	Removed	
		40005			17	12	470		Remove	Removed	
		40006			9	9.5	315		Remove	Removed	
		40007			12	12	647		Remove	Removed	
		40008			13	10.5	632		Remove	Removed	
		40009			9	10	320		Remove	Removed	
		40010			10	13	349		Remove	Removed	
		40011			13.5	11.5	528		Remove	Removed	
		40012			19	11.8	620		Remove	Removed	
		40013			4	3	58		Retain	Retained	
		40014			3	2.5	51		Retain	Retained	
		40015			8	6	157		Retain	Retained	
		40016			9	7	225		Retain	Retained	
		40017			9	7.5	183		Retain	Retained	
		40018			7	6	162		Retain	Retained	
Clark Street	North Sydney Council	40019	Melaleuca quinquenervia	Broad leaf paper-bark	10	7	364	Rev H, 14-09-17	Retain	Retained	Removal to allow for access to the piling rig and safe installation of the soldier piles. These trees are also located along the boundary line and will be impacted by the installation of the hoarding.
		40020			5	3	400		Retain	Retained	
		40021			4.75	3	396		Retain	Retained	
		40022	8	7.5	448	Remove	Removed				
		40023	16	12	705	Retain	Retained				
		40024	15	9	370	Retain	Removed		Removed by others as confirmed by JHCPBG on 31-Aug-20		
		40025	15.5	11	423	Retain	Retained				
		40026	17	8	382	Retain	Retained				
		40027	17	8	385	Retain	Retained				
		40028	15	7	355	Retain	Retained				
		40029	15	7	310	Retain	Retained				
		40030	18	10	590	Retain	Retained				
Hume Street	North Sydney Council	40031	Platanus acerifolia	London plane	16	11	452	Rev H, 14-09-17	Retain	Retained	Trees numbered 40033 to 40038 and 40041 will be removed to allow for access to the piling rig and safe installation of the soldier piles. These trees are also located along the boundary line and will be impacted by the installation of the hoarding. Trees numbered 40037 to 40041 will also be removed to allow for safe delivery of bridge beams and the crane set up for the bridge construction. Trees numbered 40037, 40038 and 40041 are also directly located in the area of the temporary bridge. In addition, trees 40039 and 40040 are located within the slew radius of a crane that will be used to unload the bridge beams from trucks to site. The site is very constrained and the locations to position the crane are limited. are limited are limited. Given the sensitive nature of utilizing a crane on site and in close proximity to the existing businesses, these trees will be removed for safety reasons.
		40032			12	7	393		Retain	Retained	
		40033			10	6	365		Remove	Removed	
		40034			12	12	780		Remove	Removed	
		40035			6	7	248		Remove	Removed	
		40036			11	8.5	660		Remove	Removed	
		40037			11	12	470		Remove	Removed	
		40038			10	10	406		Remove	Removed	
		40039			5.5	5	297		Remove	Removed	
		40040			6	7	348		Remove	Removed	
		40041			5	3	360		Remove	Removed	

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Willoughby Road		1	Syagrus romanzoffiana	Cocos palm	12	3	314	Rev Q, 09-01-18	Retain	Retained	
		2			12.5	3	255		Retain	Retained	
		3			11	4.5	229		Retain	Retained	
		4			12	3	279		Retain	Retained	
		5			12	3	355		Retain	Retained	
		6	Platanus acerifolia	London plane	12.5	10.5	382		Retain	Retained	
		7			6.5	9	189		Retain	Retained	
		8			11.5	7	207		Retain	Retained	
		9			15	8.5	350		Retain	Retained	
Willoughby Road	North Sydney Council	10	Platanus acerifolia	London plane	14.4	11.5	440	Retain	Retained		
		11			11.5	8	290	Retain	Retained		
		12			10.5	7.5	251	Retain	Retained		
		13			14	12.5	360	Retain	Retained		
		14			13	12.5	474	Retain	Retained		
		15	Ficus microcarpa var hillei	Hills weeping fig	2	1.2		Retain	Retained		

5. Victoria Cross North

5.1. Location

The Victoria Cross North Site is located on the corner of McLaren Street and Miller Street, in North Sydney (Figure 5).

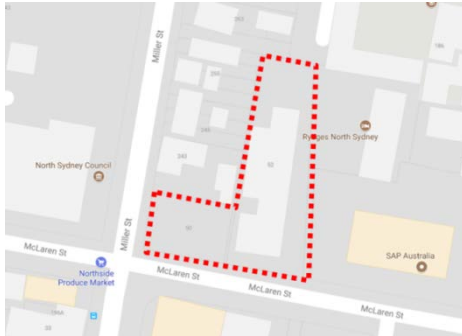


Figure 5: Location plan showing site on the corner of McLaren Street and Miller Street, in North Sydney

5.2. Existing Environment

Trees are located both within the site boundary and along the footpaths surrounding the site. Refer to Appendix D for further detail.

5.3. Site Works

Works at the Victoria Cross North site include:

- Site establishment requiring the construction of driveways and installation of hoarding for security, dust and noise mitigation
- Excavation to service railway works and station development

5.4. Tree Impact Assessment

89 trees were surveyed at the Victoria Cross North site which is bounded by Miller Street and McLaren Street. The site has been assessed and designed to minimise the removal of trees wherever possible, however after consideration of the site constraints, the following trees have been impacted:

- Trees numbered 1007, 1010 to 1012, 1019, 1029, 1031 to 1042, 3020, 3024 to 3027, 3029, 3032, 3033 and 3078 were approved to be pruned in order to allow safe installation of retaining wall and acoustic shed.
- Trees numbered 1020 to 1023, 1025 to 1028, 1049, 1050, 3073 to 3077 have been removed to enable the installation of the proposed acoustic shed and retaining wall.

Trees numbered 2860, 3030 and 3031 were approved to be removed however they were able to be retained.

All trees retained within the site area are protected in accordance with Australian Standard AS 4970 'Tree protection in development sites' to avoided/minimised during the proposed works.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Miller Street and McLaren Street	North Sydney Council	1000	Platanus x hybrida	Plane tree	15	9	410	Rev H, 14-09-17	Retain	Retained	
		1001			16.5	12.5	650		Retain	Retained	
		1002	Dead Tree						Retain	Retained	
		1003	Brachychiton acerifolius	Illawarra flame	13	5	337		Retain	Retained	
		1004	Camelia sasanqua	Sasanqua	4	3	Multi stem		Retain	Retained	
		1005	Callistemon viminalis	Weeping bottlebrush	3	2	40		Retain	Retained	
		1006	Jacaranda mimosifolia	Jacaranda tree	16	15	240 316 350	Retain	Retained		
		1007	Hakea laurina	Pincushion plant	6.5	5	255	Rev U, 28-02-18	Prune	Retained	Requires pruning to give sufficient clearance and space for the piling rig - the tree is currently overhanging into our boundary
		1008	Banksia serrata	Saw toothed banksia	7.5	3.5	115		Retain	Retained	
		1009	Melaleuca quinquenervia	Broad leaf paper-bark	11	5	304		Retain	Retained	
		1010	Corymbia maculata	Spotted gum	18.8	412	765	Rev O, 29-11-17	Prune	Retained	The canopy is overhanging the site and is required to be pruned due to the height of the proposed 10m acoustic shed.
		1011	Eucalyptus robusta	Swamp mahogany	12	10	394	Rev N, 22-11-17	Prune	Retained	
		1012	Casuarina cunninghamiana	River she oak	9	4	165	Rev O, 29-11-17	Prune	Retained	
		1013	Callitris columellaris	Coast cypress pine	4.5	3	114	Rev H, 14-09-17	Retain	Retained	
		1014	Eleocarpus reticulatis	Blueberry ash	3	3	55		Retain	Retained	
		1015	No tree onsite						Retain	Retained	
		1016	Eucalyptus microcorys	Tallow wood	18.5	12	823	Rev N, 22-11-17	Prune	Retained	Pruning of these trees are required to allow for the safe installation of the proposed retaining wall and acoustic shed
		1017	Acmena smithii	Lilly pilly	6	6	225		Prune	Retained	
		1018	Allocasuarina torulosa	Forest Oak	9	5	265	Rev H, 14-09-17	Retain	Retained	
		1019	Omalanthus populifolius	Native bleeding heart	4	3	65	Rev U, 28-02-18	Prune	Retained	Requires pruning to give sufficient clearance and space for the piling rig - the tree is currently overhanging into our boundary
		1020	Jacaranda mimosifolia	Jacaranda tree	12	8	558	Rev N, 22-11-17	Remove	Removed	Removal of these trees is required to allow for the installation of the proposed acoustic shed and retaining wall. Significant design changes were also considered and the final location of the shaft excavation and acoustic shed were designed to minimise the amount of tree removal and retain trees no 1031 to 1042
		1021	Archontophoenix alexandrae	Alexander palm	8	4	200 245		Remove	Removed	
		1022			6.5	3	140 165		Remove	Removed	
		1023	Camellia sasanqua	Sasanqua	5	4	Multi stem		Remove	Removed	
		1024	Platanus x hybrida	Plane tree	10	6	363	Rev H, 14-09-17	Retain	Retained	
		1025	Ficus rubiginosa	Port jackson fig	14	21	1500	Rev N, 22-11-17	Remove	Removed	Removal of these trees is required to allow for the installation of the proposed acoustic shed and retaining wall. Significant design changes were also considered and the final location of the shaft excavation and acoustic shed were designed to minimise the amount of tree removal and retain trees no 1031 to 1042
		1026	Platanus x hybrida	Plane tree	16	10	482	Rev H, 14-09-17	Retain	Retained	
		1027	Strelitzia nicholii	Giant bird of paradise	5	5	Multi stem Clump	Rev N, 22-11-17	Remove	Removed	Removal of these trees is required to allow for the installation of the proposed acoustic shed and retaining wall. Significant design changes were also considered and the final location of the shaft excavation and acoustic shed were designed to minimise the amount of tree removal and retain trees no 1031 to 1042
		1028	Platanus x hybrida	Plane tree	16.5	12	687		Remove	Removed	
		1029			11	10	583		Prune	Retained	
		1030	Acmena species	Hybrid lilly pilly	5	4	175	Rev H, 14-09-17	Retain	Retained	
		1031			6	3	100	Rev O, 29-11-17	Prune	Retained	
		1032	Archontophoenix alexandrae	Alexander palm	5.5	3	145	Rev O, 29-11-17	Prune	Retained	
		1033	Ficus macrophylla	Mortonbay fig	18.5	24	1900	Rev N, 22-11-17	Prune	Retained	
		1034	Archontophoenix alexandrae	Alexander palm	6	3	180	Rev O, 29-11-17	Prune	Retained	Pruning of these trees are required to allow for the safe installation of the proposed retaining wall and acoustic shed. Pruning will be kept to a minimum as the area is surrounded by an existing fence line. Pruning is only required on branches which over hang the fence line.
		1035	Unidentified spp.		6	4	90		Prune	Retained	
		1036	Photinia serratifolia	Chinese hawthorn	4	4	Multi stem		Prune	Retained	
		1037	Archontophoenix alexandrae	Alexander palm	7	4.5	228		Prune	Retained	
		1038	Celtis occidentalis	Hackberry	10	7	223		Prune	Retained	
		1039	Archontophoenix alexandrae	Alexander palm	8	4	230		Prune	Retained	
		1040	Photinia robusta	Photinia	4	5	2x90 110	Prune	Retained		
		1041	Strelitzia nicholii	Giant bird of paradise	7	3	Multi stem	Prune	Retained		
		1042	Ficus macrophylla	Morton bay fig	16	10	1400	Rev N, 22-11-17	Prune	Retained	
		1043	Platanus x hybrida	Plane Tree	10.8	7	210	Rev O, 29-11-17	Retain	Retained	
1044	9	6.5			150	Retain	Retained				

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Miller Street and McLaren Street	North Sydney Council	1045			17.5	8	380	Rev O, 29-11-17	Retain	Retained	
		1046	No tree onsite		0				Retain	Retained	
		1047	Platanus x hybrida	Plane Tree	14.5	11	380		Retain	Retained	
		1048			13	8	430		Retain	Retained	
		1049	Camellia japonica	Camellia	1.5	0.7	Multi stem		Remove	Removed	Removal of these trees are required to allow for the installation of the proposed acoustic shed and retaining wall.
		1050	Rondeletia amonea	Pink rondeletia	3	1.5	Multi stem		Remove	Removed	
		2031	Melaleuca quinquenervia	Broad leaf paper-bark	10	6	320 370		Retain	Retained	
		2670	Callistemon viminalis	Weeping bottlebrush	8	4	160		Retain	Retained	
		2671	Acmena smithii	Lilly pilly	10	10	440		Retain	Retained	
		2672	Callistemon viminalis	Weeping bottlebrush	8	3	133		Retain	Retained	
		2809	Cyathea cooperi	Cooper's tree fern	6.5	3	145		Retain	Retained	
		2860	Ficus rubiginosa	Port Jackson fig	10	5	85 2x250		Remove	Retained	Removal of this tree is required to allow for the installation of the proposed retaining wall and main access driveway. The existing fence line will be removed to allow for the installation of new fencing at the property's actual boundary.
		2938	Archontophoenix alexandrae	Alexander palm	8	5	225		Retain	Retained	
		2942	Banksia integrifolia	Coast banksia	9.5	6	92 337		Retain	Retained	
		2943			10	6	260		Retain	Retained	
		2944			14	8	330		Retain	Retained	
		2945			10	4.5	120 280		Retain	Retained	
		2946			8.5	6	105 188		Retain	Retained	
		2947			10	4	255		Retain	Retained	
		2948			9	5	180		Retain	Retained	
		2949	Banksia integrifolia	Coast banksia	10	5	205		Retain	Retained	
		2950	No tree onsite						Retain	Retained	
		2951	Banksia integrifolia	Coast banksia	7	2	130		Retain	Retained	
		2952	Strelitzia nicholii	Giant bird of paradise	6.5	3	Multi Stem		Retain	Retained	
		2953	Howea forsteriana	Kentia palm	6	4	120		Retain	Retained	
		3020	Ulmus parvifolia	Chinese elm	8	7	135 155		Prune	Retained	Pruning of these trees is required to allow for the installation of the proposed retaining wall and main access driveway. The existing fence line will be removed to allow for the installation of new fencing at the property's actual boundary.
		3022	Ilex aquifolium	European Holly	7	7.5	130 177		Retain	Retained	
		3023	Banksia integrifolia	Coast banksia	8	4	205		Retain	Retained	
		3024	Pittosporum undulatum	Native daphne	6	7	130		Prune	Retained	
		3025	Banksia integrifolia	Coast banksia	12	6	100 220		Prune	Retained	Pruning of these trees is required to allow for the installation of the proposed retaining wall and main access driveway. The existing fence line will be removed to allow for the installation of new fencing at the property's actual boundary.
		3026			12	5.5	292		Prune	Retained	
		3027			10	4.5	105		Prune	Retained	
		3028			6	4	65 123		Retain	Retained	
		3029			12	4.5	200		Prune	Retained	
		3030	Ulmus parvifolia	Chinese elm	8	6	100 120		Remove	Retained	Pruning of trees 3029, 3032 and 3033 is required to allow for the installation of the proposed retaining wall and main access driveway. The existing fence line will be removed to allow for the installation of new fencing at the property's actual boundary. Removal of tree 3030 and 3031 is required as the driveway installation requires excavation and boxing out within the structural root zone of the tree.
		3031	Banksia integrifolia	Coast banksia	9	5	260		Remove	Retained	
		3032	6	4.5	175	Prune	Retained				
3033	No tree onsite					Prune	Retained				
3073	Phoenix canariensis	Canary Island date palm	10	9	616	Remove	Removed	Removal of these trees is required to allow for the installation of the proposed retaining wall and main access driveway. The existing fence line will be removed to allow for the installation of new fencing at the property's actual boundary.			
3074	Elaeocarpus eumundi	Smooth leaf quandong	7	5.5	240	Remove	Removed				
3075	Cinnamomum camphora	Camphor laurel	16	20	805	Remove	Removed				
3076	Eucalyptus botryoides	Bangalay	21	8	330	Remove	Removed				
3077	Nerium oleander	Oleander shrub	4	6	Multi stem	Remove	Removed				

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Miller Street and McLaren Street	North Sydney Council	3078	Platanus acerifolia	London plane	19	22	990		Prune	Retained	Pruning of this tree is required to allow for the installation of the proposed retaining wall and main access driveway. The existing fence line will be removed to allow for the installation of new fencing at the property's actual boundary.

6. Victoria Cross South

6.1. Location

The Victoria Cross South Site is located on the corner of Miller Street and Berry Street, in North Sydney (Figure 6).

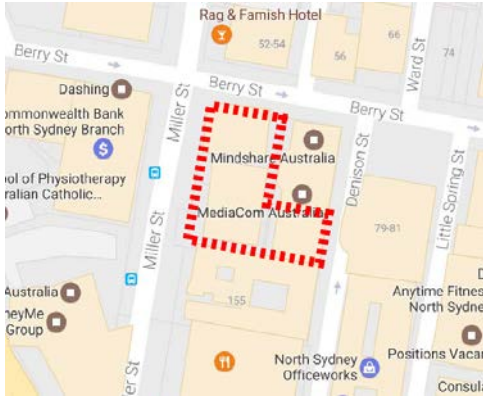


Figure 6: Location plan showing site on the corner of Miller and Berry Streets, North Sydney

6.2. Existing Environment

Street trees are both setback from the kerb in raised planter beds, and also located adjacent to the pedestrian footpath around the perimeter of the site. Refer to Appendix E for further detail in regards to the locations of the trees and tree species.

6.3. Site Works

Construction activities at the Victoria Cross South site include:

- Site establishment requiring the construction of driveways and the installation of hoarding for site security, dust and noise mitigation
- Excavation of a vertical shaft and cavern to service railway works and station development

Utility Works

Surveys were undertaken on trees located adjacent to, or across the road from utility works required to support construction activities. These trees were numbered 10039 to 10046 (Figure 7). No impacts to these trees occurred during the works.



Figure 7. Victoria Cross South Utilities

6.4. Tree Impact Assessment

46 trees were surveyed at the Victoria Cross South site which is bounded by Miller Street, Berry Street, and Denison Street. The site was assessed and designed to minimise the removal of trees wherever possible, however after consideration of the site constraints, the following trees have been removed:

- Tree number 10006 was removed to ensure public safety as utility works were required within the structural root zone of the tree which may compromise the future stability of the tree.
- Tree number 10008 was removed to enable vehicular site access for the safe removal of demolition material off site.
- Tree number 10009 was removed to both enable site access during tunnelling activities and to enable stormwater diversion required by design.
- Trees numbered 10012 and 10013 were removed to enable the decommissioning of a substation located in the basement of 181 Miller Street.
- Tree numbers 10026 to 10027 were removed for the safe installation of hoarding.
- Trees numbered 10028 to 10034 were removed both for the safe installation of hoarding and to enable construction of the acoustic shed.
- Trees numbered 10019 and 10014 are required to be removed to allow crane setup for lifting of materials in and out of the site. Tree number 10014 will enable the removal of materials on the electrical slab and tree number 10019 for materials from the south shaft.

Trees numbered 10011 and 10025 were approved to be removed however they were able to be retained.

All trees retained within the site area are protected in accordance with Australian Standard AS 4970 'Tree protection in development sites' to avoid/ minimise potential impacts during the proposed works.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Miller Street	North Sydney Council	10001	Platanus acerifolia	London plane	18	14	478	Rev H, 14-09-17	Retain	Retained	
		10002			15.5	10.7	470		Retain	Retained	
		10003	Platanus orientalis	Oriental plane	11	9.3	512		Retain	Retained	
		10004	Platanus acerifolia	London plane	8	9	310		Retain	Retained	
		10005			17	10.5	397		Retain	Retained	
		10006			15.5	9	321	Rev P, 14-12-17	Remove	Removed	A stormwater inlet pit (including connection work) is required to be installed in the kerb and gutter directly adjacent to Tree no. 10006. Works are required at this location as it is the low point in the Miller Street topography and the only lateral vacancy for the stormwater pit that is not in conflict with existing services (an existing gas main is located in the road to the west of the proposed line and both water and electricity are located in the footpath to the east). Due to these constraints, utility work will occur within the structural root zone of the tree and the tree is required to be removed for safety reasons.
		10007	Platanus acerifolia	London plane	16	12.5	595	Rev U, 28-02-18	Prune	Retained	Requires pruning to give sufficient clearance and space for the piling rig - the tree is currently overhanging into our boundary
		10008			13.5	13	420	Rev H, 14-09-17	Remove	Removed	Removal to enable vehicular site access for the safe removal of demolition material. This location for site access minimises all people / plant interactions, by ensuring waste removal trucks can enter on to a protected site, be loaded up and then leave under traffic control.
		10009			16	14	486	Rev T, 21-02-18	Remove	Removed	The original alignment of the driveway impacted tree 10007, however it was modified to avoid underground services. Subsequently tree 10009 is impacted. Opportunities were to avoid impacting the tree was assessed but were not viable.
		10010			16	15	475	Rev U, 28-02-18	Prune	Retained	Requires pruning as it currently overhangs into site and is in the direct path of the new shed
		10011	17	17	555	Rev H, 14-09-17	Remove	Retained	Tree 10011 is to be removed for the installation of hoarding for public safety, site security, noise and dust management. Due to the constrained nature of the site the location of the hoarding is limited. This proposed works and tree removal was also discussed with North Sydney Council during an on-site meeting on 29 August 2017.		
10012	16.5	15	448	Remove	Removed		Trees 10012 and 10013 to be removed to decommission the substation located in the basement of 181 Miller Street. Works require a trench to be excavated from the existing substation to the footpath to expose the Ausgrid cables. Trenching is then required approximately 6m within the footpath to the north and south at the intersection of the trench from 181 Miller Street to install further cables. Other options have been looked at (i.e. under boring) but due to the location of existing Ausgrid infrastructure and the constrained site conditions, these options were not deemed technically feasible.				
10013	17.5	15	574	Remove	Removed						
10014	14	16.5	665	Rev 12, 06-07-20	Remove	Removed	Removal of tree 10014 was originally approved in revision for the installation of hoarding for public safety, site security, noise and dust management. Due to the constrained nature of the site the location of the hoarding is limited. This proposed works and tree removal was also discussed with North Sydney Council during an on-site meeting on 29 August 2017. It was reported in revision 08 that this tree was able to be retained. Tree 10014 is now to be removed to enable the installation of a crane for lifting of materials in and out from the electrical slab.				
Miller Street	North Sydney Council	10015	Platanus acerifolia	London plane	17	12	366	Rev H, 14-09-17	Retain	Retained	
		10016			14.5	11.5	308	Retain	Retained		
		10017			14.5	13	448	Rev U, 28-02-18	Prune	Retained	Requires pruning as it currently overhangs into site and is in the direct path of the new shed
		10018			4	2.5	39	Rev H, 14-09-17	Retain	Retained	
		10019			15	10.8	330	Rev 12, 06-07-20	Remove	Removed	Tree 10019 needs to be removed to set up a crane for removal of materials from the south shaft.
Berry Street	North Sydney Council	10020	Platanus acerifolia	London plane	4	3	44	Rev H, 14-09-17	Retain	Retained	
		10021			14.5	11	377	Rev U, 28-02-18	Prune	Retained	Requires pruning as it currently overhangs into site and is in the direct path of the new shed
		10022			3	3	30	Rev H, 14-09-17	Retain	Retained	
		10023			5	2.5	49		Retain	Retained	
		10024			9.5	7.8	284		Retain	Retained	
Denison Street	North Sydney Council	10025	Platanus acerifolia	London plane	10	4	124	Rev H, 14-09-17	Remove	Retained	Removal to allow for the safe installation of the hoarding.
		10026	Populus euramericana x nigra	spp Crows Nest popular tree	10	4	132		Remove	Removed	
		10027	10	6	200	Remove	Removed				
Miller Street	North Sydney Council	10028	Ulmus procera	English elm	8	11	260	Rev Q, 09-01-18	Remove	Removed	These trees are located along the boundary and within the TSE site. These will be removed to allow for the safe installation of the hoarding. The trees are also located in the area of the proposed acoustic shed. It is also noted that the location of the acoustic shed has been designed to minimise impacts to the trees located closest to Miller St.
		10029	Ulmus parvifolia	Chinese elm	7	10	170		Remove	Removed	
		10030			12	8.5	147 243		Remove	Removed	
		10031	Syagrus romanzoffiana	Cocos palm	10	4	195	Remove	Removed		
		10032			13	4	340	Remove	Removed		
		10033			13.5	5	280	Remove	Removed		
		10034			13	4.5	288	Remove	Removed		
		10035	Platanus orientalis	Oriental plane	17	15.5	490	Rev H, 14-09-17	Retain	Retained	
		10036			18	13.8	595		Retain	Retained	
		10037			19	20	640		Retain	Retained	
10038	Platanus acerifolia	London Plane Tree	21	15.5	325 730	Rev X, 21-03-18	Retain	Retained			
10039			9	6	230		Retain	Retained			
10040	9	6	170	Retain	Retained						

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Berry Street to Miller Street (Utilities)		10041			7	5	110		Retain	Retained	
Berry Street to Miller Street (Utilities)	North Sydney Council	10042	Platanus acerifolia	London Plane Tree	16	12	510	Rev X, 21-03-2018	Retain	Retained	
		10043			16	10	310		Retain	Retained	
		10044			17	14	480		Retain	Retained	
		10045			15	10	310		Retain	Retained	
		10046			16	10	400		Retain	Retained	

7. Blues Point Reserve

7.1. Location

The Blues Point site is located within Blue's Point Reserve, North Sydney, with access via Blues Point Road and Henry Lawson Avenue.

7.2. Existing Environment

The Blues Point Reserve is parkland managed by North Sydney Council. Primarily a grassed area, Blues Point Reserve has one (1) large fig tree adjacent to the site which is required to be protected in accordance with the Conditions of Approval (E7). Street trees are also located around the perimeter of the site. Refer to Appendix F for further detail.

7.3. Site Works

A temporary retrieval site at Blues Point Reserve is required for the removal of the tunnel boring machine (TBM) cutter heads and shields. Once tunnelling is complete the site will be backfilled and the parkland reinstated in consultation with North Sydney Council.

Site establishment and construction activities at this site involve:

- Installation of site fencing, hoarding, sheds and amenities
- Heritage Investigation (European and Aboriginal)
- Utility works
- Excavation of a vertical shaft for the removal of the TBM cutter heads and shields
- Backfilling the area and reinstating the park in consultation with North Sydney Council once works are complete

7.4. Tree Impact Assessment

Surveys have been undertaken on trees located adjacent to, or across the road from construction works and associated utility works (Figure 8). These trees are numbered from 700000 to 700005.

Tree 700000 located at the eastern end of Blues Point Reserve is a Moreton Bay Fig (*Ficus macrophylla*) which is protected under Condition E7 of the planning approval:

The large fig tree at the eastern end of Blues Point Reserve (approximate coordinates latitude:33.848764 and longitude: 151.204568) must be retained. Any proposal to prune either the canopy or roots of the tree must be submitted to the Secretary for approval and accompanied by an assessment of the potential impact to its long term viability by a suitably qualified arborist, consistent with Condition E6.

To ensure works did not adversely impact this tree non-invasive tree root mapping (Ground Penetrating Radar) was completed within the root zone to understand the layout of the root system. Following this

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(Uncontrolled when printed)

the independent arborist calculated the Tree Protection Zone (TPZ) in accordance with AS 4970 at 24m from the centre of the tree with 15% encroachment acceptable as long as this area is not used for long-term stockpiling, or heavy machinery movements across the root zone.

This arboriculture assessment and TPZ was further confirmed through the engagement of a second independent arborist.

Additionally, approval was sought from the Secretary for minor pruning of the roots of the fig tree in accordance with Condition E7 of the Planning Approval. Although there was no intention to prune the fig tree roots, there was potential that they may be impacted by elevated sheds and amenities located outside the TPZ.

Approval under E7 was granted by the Department of Planning and Environment on 25 September 2018.

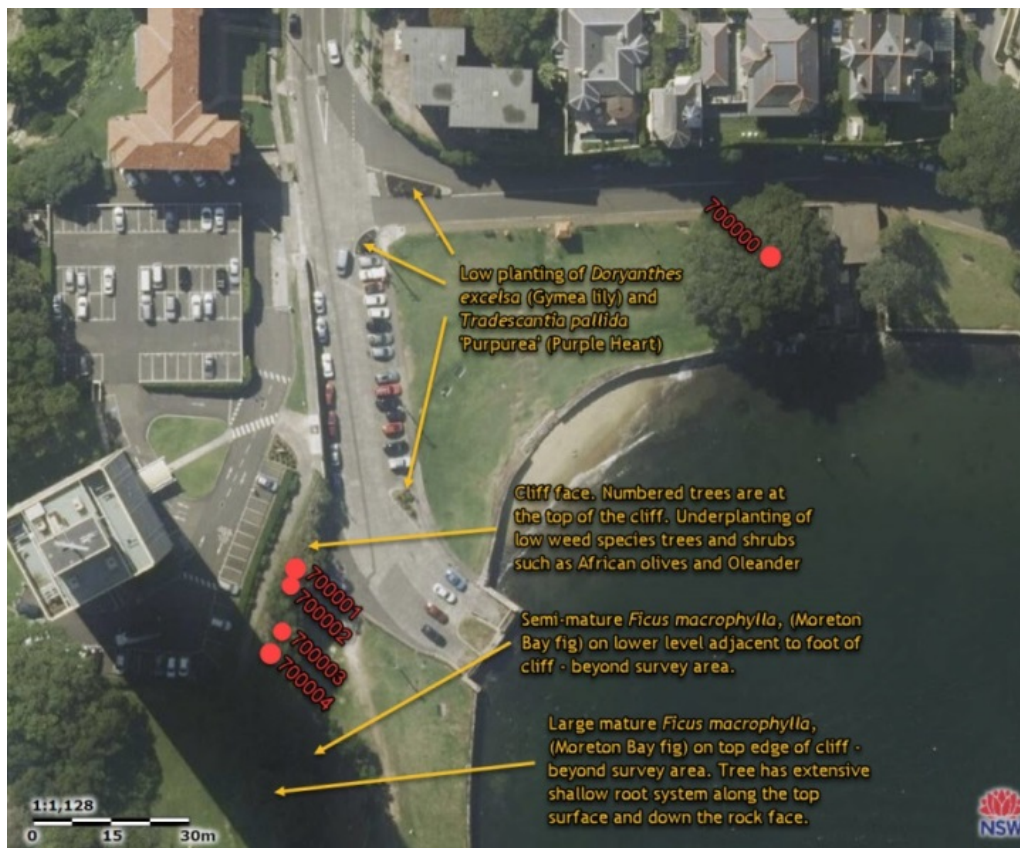


Figure 8: Blues Point Tree Survey for Utility Works

Aside from the potential for minor trimming of the roots of tree 700000, no further impacts were proposed to the trees located within the general area of the Blues Point site. All existing trees were protected (where required) in accordance with Australian Standard AS 4970 'Tree protection in development sites' to avoid/ minimise potential impacts during the proposed works.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Blues Point Road	North Sydney Council	700000	Ficus macrophylla	Moreton Bay Fig	17	28	2000	Rev X, 21-03-2018	Root pruning	Retained	
		700001	Eucalyptus botryoides	Bangalay	6.5	11	180 190 200 200		Retain	Retained	
		700002	Olea europaea. Spp. Africana	African Olive	5.5	5	75 90 100 120		Retain	Retained	
		700003	Ficus rubiginosa	Port Jackson Fig	2.5	8			Retain	Retained	
		700004	Ficus rubiginosa	Port Jackson Fig	3	6	175 220		Retain	Retained	

8. Barangaroo

8.1. Location

The Barangaroo site is located on the Barangaroo parkland site adjacent to Nawi Cove and Hickson Road (Figure 9).

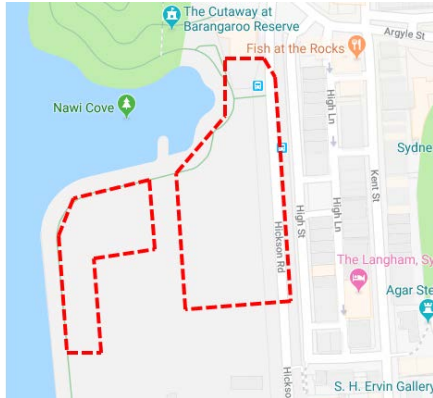


Figure 9: Location plan showing the site bounded by the waterfront at Nawi Cove and Hickson Road, in Barangaroo

8.2. Existing Environment

The existing site supports planned landscaping associated with the Barangaroo Headland Park precinct. Trees are primarily located along the foreshore pedestrian walk, and within the Nawi Cove Square Lawn which facing Hickson Road. Refer to appendix G for further detail.

8.3. Site Works

Construction activities at Barangaroo include:

- Site establishment requiring the construction of driveways and the installation of hoarding for site security, dust and noise management
- Bulk excavation (including spoil removal)
- Launch and support of the under harbour tunnel boring machine (TBM)
- Retrieving the cutter heads and shields of the two tunnel boring machines that tunnel from the Marrickville dive site

8.4. Tree Impact Assessment

237 Trees were surveyed within Barangaroo Reserve, and along Hickson Road. The following trees have been removed:

- Trees numbered 20010 to 20020 and 20040 to 20085 were removed to allow for the proposed station box excavation.

- Trees numbered 20021 to 20023, 20028 to 20039 and 20086 to 90211 were removed to establish the TBM support site, the TBM launch route and the trucking route to the spoil barge.
- Trees numbered 20024 and 20025 were removed to install the new stormwater line.
- Trees numbered 20026 and 20027 were removed for the installation of permanent HV lines.

Utility Works

Trees have been surveyed which are located adjacent to, or across the road from associated utility works (Figure 10) which are required to be undertaken to support the construction activities. These trees are numbered from 20200 to 20224. No impacts have occurred to these trees during works.



Figure 10: Hickson Road/Sussex Street Tree Survey

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification	
Hickson Road	City of Sydney	20001	Ficus microcarpa var hillii	Hill's weeping fig	15	15	687	Rev H, 14-09-17	Retain	Retained		
		20002			12.5	11.5	550		Retain	Retained		
		20003			11	10	610		Retain	Retained		
		20004			10.5	10	735		Retain	Retained		
		20005			15	10	650		Retain	Retained		
		20006			12.8	10	130 135		Retain	Retained		
		20007			10.6	11.5	405		Retain	Retained		
		20008			12	10	330 380		Retain	Retained		
		20009			10.5	10	200 310 360		Retain	Retained		
		20010	Livistona australis	Cabbage Tree Palm	10.5	5	337	Rev M, 13-11-17	Remove	Removed	Removal to allow for the proposed station box excavation	
		20011			10	5	330		Remove	Removed		
		20012			7.5	5	385		Remove	Removed		
		20013	Ficus microcarpa var hillii	Hill's weeping fig	11	14	600		Remove	Removed		
		20014			10	9	457		Remove	Removed		
		20015			13	13.5	576		Remove	Removed		
		20016	10.5	13	570	Remove	Removed					
		20017	Livistona australis	Cabbage Tree Palm	7.8	5	305		Remove	Removed		
		20018			10.5	5	375		Remove	Removed		
		20019			10.5	5	390		Remove	Removed		
		20020	Ficus microcarpa var hillii	Hill's weeping fig	3.5	15	450 560		Remove	Removed		
		20021	Livistona australis	Cabbage Tree Palm	11	5	370		Remove	Removed		Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront
		20022			11	5	360		Remove	Removed		
		20023			10	5	370		Remove	Removed		
		20024	Eucalyptus robusta	Swamp mahogany	7.5	9	305		Rev Q, 09-01-18	Remove	Removed	Removal required to install the new stormwater line which will drain all of High St and the northern end of Hickson Road. This line is unable to be relocated due to the adjacent building (Universal Studios) and station box. Alternative designs were investigated but were constrained by the reasons above.
		20025			10	10	255			Remove	Removed	
		20026			13	9	330			Remove	Removed	
		20027			12	10	430			Remove	Removed	
		20028	Platanus orientalis 'Digitata'	Cut leaf plane	6	4	110		Rev M, 13-11-17	Remove	Removed	Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront
		20029			6	4	110			Remove	Removed	
		20030			6	4	105			Remove	Removed	
		20031			6	4	93			Remove	Removed	
		20032			6	4	93			Remove	Removed	
		20033			6	4	120			Remove	Removed	
		20034			6	4	110			Remove	Removed	
		20035			6	4	110			Remove	Removed	
		20036			6	4	93			Remove	Removed	
		20037			6	4	108			Remove	Removed	
		20038			6	4	100			Remove	Removed	
		20039			6	4	97			Remove	Removed	

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Hickson Road	City of Sydney	20040	Platanus orientalis 'Digitata'	Cut leaf plane	5.5	3.5	100	Rev M, 13-11-17	Remove	Removed	Removal to allow for the station box excavation
		20041			5.5	3.5	100		Remove	Removed	
		20042			5.5	3.5	93		Remove	Removed	
		20043			5.5	3.5	90		Remove	Removed	
		20044			5.5	3.5	87		Remove	Removed	
		20045			5.5	3.5	97		Remove	Removed	
		20046			5.5	3.5	100		Remove	Removed	
		20047			5.5	3.5	100		Remove	Removed	
		20048			5.5	3.5	110		Remove	Removed	
		20049			5.5	3.5	104		Remove	Removed	
		20050			5.5	3.5	107		Remove	Removed	
		20051			5.5	3.5	100		Remove	Removed	
		20052			5.5	3.5	100		Remove	Removed	
		20053			5.5	3.5	90		Remove	Removed	
		20054			5.5	3.5	110		Remove	Removed	
		20055			5.5	3.5	106		Remove	Removed	
		20056			5.5	3.5	92		Remove	Removed	
		20057			5.5	3.5	97		Remove	Removed	
		20058			5.5	3.5	92		Remove	Removed	
		20059			5.5	3.5	107		Remove	Removed	
		20060	5.5	3.5	92	Remove	Removed				
		20061	5.5	3.5	105	Remove	Removed				
		20062	Platanus orientalis 'Digitata'	Cut leaf plane	5.5	3.5	100		Remove	Removed	Removal to allow for the station box excavation
		20063			5.5	3.5	110		Remove	Removed	
		20064			5.5	3.5	93		Remove	Removed	
		20065			5.5	3.5	90		Remove	Removed	
		20066			5.5	3.5	105		Remove	Removed	
		20067			5.5	3.5	100		Remove	Removed	
		20068			6	3.5	110		Remove	Removed	
		20069			5.5	3.5	83		Remove	Removed	
		20070			5.5	3.5	97		Remove	Removed	
		20071			5.5	3.5	95		Remove	Removed	
		20072			5.5	3.5	100		Remove	Removed	
		20073			5.5	3.5	105		Remove	Removed	
		20074			5.5	3.5	112		Remove	Removed	
20075	5.5	3.5			105	Remove	Removed				
20076	Ficus rubiginosa	Port Jackson fig			5	6	170	Remove	Removed	Removal to allow for the station box excavation	
20077			5.6	7.5	197	Remove	Removed				
20078			4.8	7	170	Remove	Removed				
20079			4.6	6.5	195	Remove	Removed				
20080			4.8	6	170	Remove	Removed				
20081			4.5	5	170	Remove	Removed				
20082			4.4	6.5	187	Remove	Removed				
20083			4.6	6.5	205	Remove	Removed				
20084	Ficus rubiginosa	Port Jackson fig	4.8	5	170	Remove	Removed	Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront			
20085			5	5	170	Remove	Removed				
20086	Celtis australis	European hackberry	3.5	2.5	33 37	Remove	Removed				
20087			3.5	2.5	45 50	Remove	Removed				

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Hickson Road	City of Sydney	20088	Celtis australis	European hackberry	3.5	2.5	2x45	Rev M, 13-11-17	Remove	Removed	Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront
		20089			3.5	2.5	65		Remove	Removed	
		20090			3.5	3.5	74		Remove	Removed	
		20091			3.5	2.5	57		Remove	Removed	
		20092			4	2.5	55 82		Remove	Removed	
		20093			3.5	2.5	70		Remove	Removed	
		20094			4	3	87		Remove	Removed	
		20095			3.5	2.5	3x30		Remove	Removed	
		20096			3.5	2.5	70		Remove	Removed	
		20097			4	3	75		Remove	Removed	
		20098			4	3	2x35 70		Remove	Removed	
		20099			3.5	2.5	43		Remove	Removed	
		20100			3.5	2.5	37 55		Remove	Removed	
		20101			3.5	2.5	68		Remove	Removed	
		20102			3.5	2.5	2x50		Remove	Removed	
		20103			3.5	2.5	70		Remove	Removed	
		20104			3.5	2.5	25 30 48		Remove	Removed	
		20105			3.5	2.5	50		Remove	Removed	
		20106			3.5	2.5	53		Remove	Removed	
		20107			3.5	2.5	25 48		Remove	Removed	
		20108			3.5	2.5	40 52		Remove	Removed	
		20109			3.5	2.5	40 2x53		Remove	Removed	
		20110			4	3	80		Remove	Removed	
		20111			3.5	2.5	47		Remove	Removed	
		20112			3.5	2.5	47		Remove	Removed	
		20113			3.5	2.5	50		Remove	Removed	
		20114			3.5	2.5	68		Remove	Removed	
20115	3.5	2.5	2x25 40	Remove	Removed						
20116	3.5	2.5	48 65	Remove	Removed						
20117	3.5	2.5	45	Remove	Removed						
20118	3.5	2.5	70	Remove	Removed						
20119	3.5	2.5	50	Remove	Removed						
20120	3.5	2.5	30 45 55	Remove	Removed						
20121	3.5	2.5	2x30 52	Remove	Removed						
20122	3.5	0	2x30 70	Remove	Removed						
20123	3.5	2.5	47	Remove	Removed						
20124	3.5	2.5	72	Remove	Removed						
20125	3.5	2.5	55	Remove	Removed						
20126	3.5	2.5	60	Remove	Removed						
20127	3.5	2.5	55	Remove	Removed						
										Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront	

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Hickson Road	City of Sydney	20128	Celtis australis	European hackberry	4	3	2x35 2x55	Rev M, 13-11-17	Remove	Removed	Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront
		20129			3.5	2.5	52		Remove	Removed	
		20130			3.5	2.5	50		Remove	Removed	
		20131			3.5	2.5	50		Remove	Removed	
		20132			3.5	2.5	40 47 68		Remove	Removed	
		20133			3.5	2.5	57		Remove	Removed	
		20134			3.5	2.5	90		Remove	Removed	
		20135			3.5	2.5	30 37		Remove	Removed	
		20136			3.5	2.5	60		Remove	Removed	
		20137			3	2.5	30 40		Remove	Removed	
		20138			3.5	2.5	35 50		Remove	Removed	
		20139			3.5	2.5	58		Remove	Removed	
		20140			3.5	2.5	75		Remove	Removed	
		20141			3.5	2.5	53		Remove	Removed	
		20142			3.5	2.5	77		Remove	Removed	
		20143			3.5	2.5	30 47		Remove	Removed	
		20144			4	3	102		Remove	Removed	
		20145			3.5	2.5	2x30		Remove	Removed	
		20146			3.5	2.5	2x35 55		Remove	Removed	
		20147			3.5	2.5	40 45		Remove	Removed	
		20148			3	2.5	60		Remove	Removed	
		20149			3.5	2.5	68		Remove	Removed	
		20150			4	3	50 60		Remove	Removed	
		20151			3.5	2.5	60		Remove	Removed	
		20152			3.5	2.5	40		Remove	Removed	
		20153			3.5	2.5	63		Remove	Removed	
		20154			3.5	2.5	35 45		Remove	Removed	
		20155			3.5	2.5	48		Remove	Removed	
		20156			4	2.5	2x35 50		Remove	Removed	
		20157			3	2	55		Remove	Removed	
20158	3.5	2.5	80	Remove	Removed						
20159	3.5	2.5	45	Remove	Removed						
20160	3.5	2.5	45 60	Remove	Removed						
20161	4	3	45	Remove	Removed						
20162	3.5	2.5	62 70	Remove	Removed						
20163	3.5	2.5	55	Remove	Removed						
20164	3.5	2.5	25 35 45	Remove	Removed						
20165	3.5	2.5	2x38 50	Remove	Removed						
20166	3.5	2.5	68	Remove	Removed						
20167	3.5	2.5	47	Remove	Removed						
											Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Hickson Road	City of Sydney	20168	Celtis australis	European hackberry	3.5	2.5	85	Rev M, 13-11-17	Remove	Removed	Removal required to establish the TBM support site, TBM launch route and trucking route to the spoil barge at the waterfront
		20169			3.5	2.5	55		Remove	Removed	
		20171			3.5	2.5	47		Remove	Removed	
		20172			4	3	20 38 58		Remove	Removed	
		20173			4	3	60		Remove	Removed	
		20174			3.5	2.5	3x35		Remove	Removed	
		20175			3	2.5	60		Remove	Removed	
		20176			3.5	2.5	40		Remove	Removed	
		20177			3	2	40		Remove	Removed	
		20178			4	3	80		Remove	Removed	
		20179			3.5	2.5	56		Remove	Removed	
		20180			3.5	2.5	80		Remove	Removed	
		20181			3.5	2.5	2x25 40		Remove	Removed	
		20182			3	2.5	2x20 50		Remove	Removed	
		20183			3.5	2.5	56		Remove	Removed	
		20184			4	3	2x25 62		Remove	Removed	
		20185			3.5	2.5	60		Remove	Removed	
		20186			4	3.5	85		Remove	Removed	
		20187			3.5	2.5	30 45		Remove	Removed	
		20188			3.5	0	60		Remove	Removed	
		20189			3	2	37		Remove	Removed	
		20190			4	3	95		Remove	Removed	
		20191			3.5	2.5	67		Remove	Removed	
		20192			4	3	2x40 58		Remove	Removed	
		20193			3	2	43		Remove	Removed	
		20194			3.5	2.5	60		Remove	Removed	
		20195			3	2	40		Remove	Removed	
		20196			4	3	90		Remove	Removed	
		20197			3.5	2.5	80		Remove	Removed	
		20198			3.5	2.5	2x45		Remove	Removed	
20199	3.5	2.5	47	Remove	Removed						
90200	3.5	2.5	73	Remove	Removed						
90201	3	2.5	45	Remove	Removed						
90202	3.5	2.5	80	Remove	Removed						
90203	3.5	2.5	40 48	Remove	Removed						
90204	3.5	2.5	85	Remove	Removed						
90205	3	3	65	Remove	Removed						
90206	3.5	2.5	65	Remove	Removed						
90207	3.5	2.5	33 52	Remove	Removed						
90208	3.5	2.5	105	Remove	Removed						
90209	4	3	2x28 40	Remove	Removed						
90210	3.5	2.5	70	Remove	Removed						
90211	3.5	2.5	62	Remove	Removed						
	City of Sydney	20200	Ficus macrocarpa var. hillei	Hill's Weeping Fig	9.5	9	355	Rev X, 21-03-18	Retain	Retained	

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification		
Hickson Road/Sussex Street		20201			8	8	270		Retain	Retained			
		20202			11.5	12	350		Retain	Retained			
		20203			13.5	13	440		Retain	Retained			
		20204			10.5	12	340		Retain	Retained			
		20205			10.5	9	300		Retain	Retained			
		20206			8	8	215		Retain	Retained			
		20207		Lophostemon confertus	Brush Box	3	1	45		Retain	Retained		
		20208				7	5	200		Retain	Retained		
		20209				8	7	230		Retain	Retained		
		20210				10	9	265		Retain	Retained		
		20211				8	7	225		Retain	Retained		
		20212				19	32	1160		Retain	Retained		
		20213				9.5	6	260		Retain	Retained		
		20214				9.5	5	235		Retain	Retained		
		20215			Ficus macrocarpa var. hillei	Hill's Weeping Fig	6.5	4	160		Retain	Retained	
		20216					7	4	260		Retain	Retained	
		20217					14	8	360		Retain	Retained	
		20218					13	12	420		Retain	Retained	
		20219					13	8	310		Retain	Retained	
		20220					11	7	355		Retain	Retained	
		20221					10	5	295		Retain	Retained	
		20222					9	8	315		Retain	Retained	
		20223			Ficus macrophylla	Moreton Bay Fig	7	18	NA		Retain	Retained	
		20224			Ficus macrocarpa var. hillei	Hill's Weeping Fig	13	8	340		Retain	Retained	

9. Martin Place

9.1. Location

The Martin Place site is bounded by Hunter Street, Castlereagh Street Elizabeth Street and Martin Place, in the Sydney CBD (Figure 11).

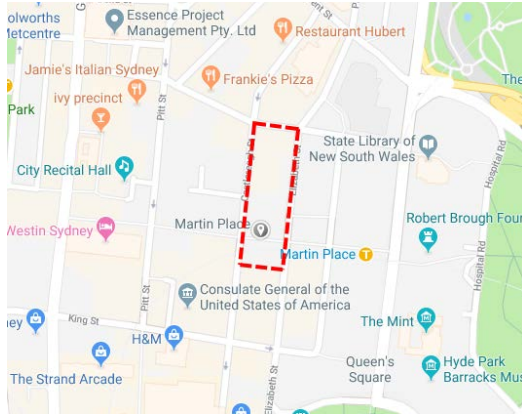


Figure 11: Location plan showing the site within Hunter Street, Castlereagh, Elizabeth and Martin Place, Sydney

9.2. Existing Environment

Street trees are located around the perimeter of the site, with no trees within the site boundary. Refer to Appendix H for further detail.

9.3. Site Works

Construction works at Martin Place involve:

- Demolition of buildings and the Martin Place shopping circle
- Site establishment requiring construction of driveways and installation of hoarding for site security, dust and noise management
- Demolition of buildings and the Martin Place shopping circle
- Construction of the temporary pedestrian access bridge adjacent to 48-50 Martin Place between Elizabeth and Castlereagh streets
- Excavation of station caverns and other underground pedestrian connections from the shafts
- Construction of an underground platform-to-platform connection between the existing Martin Place Station and the Sydney Metro Martin Place Station

9.4. Tree Impact Assessment

65 trees were surveyed at the Martin Place site which is bounded by Castlereagh Street, Hunter Street, and Elizabeth Street.

Trees 30013 to 30023 were pruned during demolition activities. Subsequently trees 30013 to 30025 were approved to be removed in Revision 7 of the Tree Report, however trees 30013, 30015 and 30018 to 30022, 30024 and 30025 were able to be retained with pruning as per The Ents Tree Consultancy for Lend Lease (<https://www.lendlease.com/martinplacemetro/>).

Trees numbered 30005, 30006 and 30028 were pruned to clear the tower crane lifting zone.

Tree number 30038 was removed in preference to significant pruning of trees 30005 and 30006 in order to assemble the jib on the tower crane.

All existing trees are protected in accordance with Australian Standard AS 4970 'Tree protection in development sites' to avoid/ minimise potential impacts during the proposed works.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Castlereagh Street	City of Sydney	30001	Celtis occidentalis	Hackberry	10	10	330	Rev H, 14-09-17	Retain	Retained	The jib for the tower crane is approx 50m long and needs to be fully assembled along Castlereagh Street and then lifted in to position. Due to the length of the jib, plus the size of the mobile crane setup the trees will be an unavoidable obstacle that need to be pruned to prevent the crane components potentially getting caught. Disturbance will be minimised to smaller branches only to achieve the required 4-4.5m clearance
		30002			7	9.5	260		Retain	Retained	
		30003			9	11	285		Retain	Retained	
		30004			9	14	300		Retain	Retained	
		30005			9.5	13	325	Rev 05, 04-02-19	Prune	Retained	
		30006	8.5	15.5	380	Rev 02, 21-09-18, , Rev 05, 04-02-19	Prune	Retained			
		30007	Fraxinus pennsylvanica	Green ash	9	6	140		Retain	Retained	
		30008			14	9	170		Retain	Retained	
		30009			8.5	3	145		Retain	Retained	
		30010			13	11	250		Retain	Retained	
		30011			4	2	55		Retain	Retained	
		30012	9	4	135		Retain	Retained			
30013	Fraxinus pennsylvanica	Green ash	13.5	8	200	Rev 07, 10-04-19 and The Ents Tree Consultancy Report	Remove	Retained			
30014			9	6.5	155		Remove	Removed			
30015	Platanus acerifolia	London plane	4	2	75		Remove	Retained			
30016			11.5	5	195		Remove	Removed			
Hunter Street	City of Sydney	30017	Celtis australis	European hackberry	14		8	230	Remove	Removed	
		30018			10		12.5	355	Remove	Retained	
		30019			8.5		10	265	Remove	Retained	
Elizabeth Street	City of Sydney	30020	Platanus acerifolia	London plane	9		10.5	270	Remove	Retained	
		30021			14.5		9	283	Remove	Retained	
		30022			8		10	232	Remove	Retained	
		30023			7		6	154	Remove	Removed	
		30024			4		2	75	Removed	Retained	
		30025			9	9	225	Removed	Retained		
		30026			5	3.5	75	Retain	Retained		
		30027			8	7.5	150	Retain	Retained		
		30028			8	6.5	180	Rev 03, 10-10-18	Prune	Retained	Pruning required for unloading materials using the tower crane
		30029			6	3	65	Rev H, 14-09-17	Retain	Retained	
30030	4.5	2	60	Rev 07, 10-04-19	Retain	Retained					
Castlereagh Street	City of Sydney	30031	Liriodendron tulipifera	Tulip tree	11	11	420	Rev 07, 10-04-19	Prune	Retained	Pruning required for the installation of hoarding during the demolition stage
		30032	Platanus acerifolia	London plane	4	2	60	Rev H, 14-09-17	Retain	Retained	
		30033			11	4.5	160		Retain	Retained	
		30034			6	2.5	130		Retain	Retained	
		30035			6	5	140		Retain	Retained	
		30036			7.5	3.5	100		Retain	Retained	
		30037			7	5	150		Retain	Retained	
30038	16	12			450	Rev 07, 10-04-19	Remove		Removed	Pruning of this tree was required for the installation of hoarding during the demolition stage. Additional heavy pruning of this tree is necessary to clear the lifting zone of the Tower Crane from the street side in order to unload materials using the crane. The jib for the tower crane is approx 50m long and needs to be fully assembled on the street and then lifted in to position. Due to the length of the jib, plus the size of the mobile crane setup impact to this tree is unavoidable and it needs to be pruned to prevent the crane components potentially getting caught. Following a site visit with City of Sydney on 30 January, it was identified that this tree will be heavily pruned/ removed to lessen the impact on trees 30005 and 30006 as tree 30038 is less significant than these other trees.	
Hunter Street	City of Sydney	100	Celtis australis	European hackberry	6.5	6.5	176	Rev Q, 09-01-18	Retain	Retained	
		101			6	7	201		Retain	Retained	
Bligh Street	City of Sydney	102			8	7.5	214		Retain	Retained	
		103			13	15	400		Retain	Retained	
		104			7.5	6	150		Retain	Retained	
105	Populus nigra 'Italica'	Italian poplar	14	7	480	Retain	Retained				

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Hunter Street		106	Celtis australis	European hackberry	2.5	1	42		Retain	Retained	
		107			9	7.5	225		Retain	Retained	
		108			8	7	480		Retain	Retained	
		109			9	7.5	213		Retain	Retained	
		110			7	7	193		Retain	Retained	
Hunter Street		111			10	9	278		Retain	Retained	
Elizabeth Street	City of Sydney	30050	Platanus acerifolia	London plane	12.5	10.5	272		Retain	Retained	
		30051	Platanus x hybrida	Plane tree	11.5	6.5	217		Retain	Retained	
		30052			13.5	9.5	258		Retain	Retained	
		30053			11.5	9.5	255		Retain	Retained	
		30054	Platanus x hybrida	Plane tree	15.5	11.5	334		Retain	Retained	
		30055			11.5	9	199		Retain	Retained	
		30056			13	12	268		Retain	Retained	
		30057			7.5	3	95		Retain	Retained	
		30058			6.5	3.5	85		Retain	Retained	
		30059	6.5	4	90		Retain	Retained			
		30060	14	7	344		Retain	Retained			
		30061	Washingtonia robusta	Mexican fan palm	7	3	475		Retain	Retained	
		30062			6.5	3.5	467		Retain	Retained	
		30063			6.5	4	504		Retain	Retained	
30064	6.5	4.5			432		Retain	Retained			

10. Pitt Street

10.1. Location

The Pitt Street North site are located on the corner of Pitt Street, Castlereagh Street and Park Street, in the city of Sydney (Figure 122), with the Pitt Street South site located adjacent to the Edinburgh Castel Hotel on the corner of Pitt Street and Bathurst Street

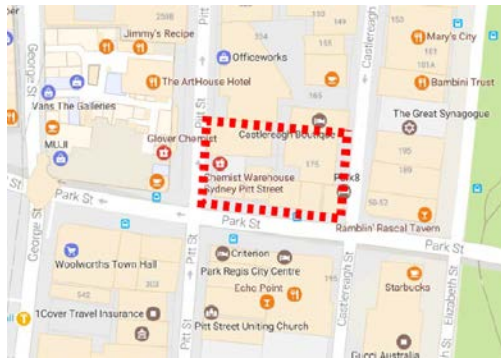


Figure 12: Location plan showing site on the corner of Pitt Street, Castlereagh Street and Park Street, in Sydney

10.2. Existing Environment

Various street trees are located along the perimeter of the site. There are no trees within the site boundary. Refer to Appendix I for further detail.

10.3. Site Works

Construction of the Pitt Street station involves:

- Demolition of buildings
- Site establishment requiring construction of driveways and the installation of hoarding for site security, dust and noise management
- Excavation of two (2) shafts (north and south) adjacent to the station cavern to provide vertical access and future station development
- Excavation of the station caverns and other underground pedestrian connections from the shafts

10.4. Tree Impact Assessment

16 Trees were surveyed on Pitt Street, Park Street and Castlereagh Street. An additional tree was identified within the area surrounding the site however, no impacts on this tree were proposed and as such the tree was not surveyed. Works at Pitt Street have not impacted any trees.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Castlereagh Street	City of Sydney	1	Waterhousia floribunda 'Green Avenue'	Green Ave weeping lillypilly	4	4	8	Rev H, 14-09-17	Retain	Retained	
		2			3.5	2.5	70		Retain	Retained	
Park Street		3	Lophostemon confertus	Brushbox	12	6.5	300		Retain	Retained	
		4			7.5	5.8	215		Retain	Retained	
		5			3.5	2	60		Retain	Retained	
		6			9.5	6.5	240		Retain	Retained	
		7			10.5	6.5	215		Retain	Retained	
		8			13.5	6.5	280		Retain	Retained	
Pitt Street		17						Rev 02, 21-09-18	Retain	Retained	
		9	Ulmus parvifolia	Chinese elm	6.5	6	155	Rev H, 14-09-17	Retain	Retained	
		10			7.5	6	175		Retain	Retained	
		11			5.5	5.5	130		Retain	Retained	
		12			5.5	4	80		Retain	Retained	
		13			5.5	4.6	100		Retain	Retained	
		14			8.5	9.5	250		Retain	Retained	
		15	Populus species	Poplar tree	9	5.5	120		Retain	Retained	
16	Populus simonii	Chinese poplar	6	3	16 90	Retain	Retained				

11. Central

11.1. Location

The Central Station site is located within the Central Station rail corridor, in Chippendale (Figure 13). Site access is via Eddy Avenue and Regent Street.



Figure 13: Location plan showing the site bounded by Regent Street and the Central Station rail corridor boundary, in Chippendale

11.2. Existing Environment

Trees are located within both within the Central Station rail corridor, and outside of the corridor adjacent to the site. Refer to appendix J for further detail.

11.2.1. Outside the Rail Corridor

Two (2) trees are located at 58A and 62A Regent Street, Chippendale.

11.2.2. Inside the Rail Corridor

Eleven (11) trees are located within the rail corridor in an island zone bordered on either side by railway tracks. These trees consist of both mixed native and introduced species varying in size.

11.3. Site Works

The construction site for the works at Central Station encompasses the area around existing platforms 13, 14 and 15 and between the suburban and country lines to the south. Although this site incorporates the footprint of the future underground metro platforms, it is currently part of the Central Station operational area.

11.3.1. Outside the Rail Corridor

Construction activities inside the rail corridor include:

- Site establishment requiring the construction of driveways and the installation of hoarding for site security, dust and noise management
- Building an access bridge from Regent Street into the rail corridor (Sydney Yard) to provide construction and operational maintenance access for both Sydney Metro and Sydney Trains

11.3.2. Inside the rail corridor

Site establishment and construction activities include:

- Building a temporary pedestrian bridge
- Adjusting rail systems around platforms 13, 14 and 15
- Adjusting rail systems around platforms, the paid pedestrian connections and Devonshire Street tunnel
- Excavating the station caverns and other underground pedestrian connections from the shafts
- Spoil removal

11.4. Tree Impact Assessment

This tree impact assessment report was based on the known demolition, site establishment, utility and construction works as noted above in Section 11.3. 13 trees were surveyed within the rail corridor at Central station and also along Regent Street. The site was assessed and designed to minimise the removal of trees wherever possible. Trees that have been assessed for known impacts are described below with further detail provided in Appendix J.

11.4.1. Outside the Rail Corridor

Two (2) trees classified with low retention value have been removed as they were located within the development footprint of the Sydney Yard Access Bridge. Given the site constraints of providing access from Regent Street to the Sydney Yard, there was no opportunity to modify the entrance of the bridge to avoid the removal of trees (as identified in Appendix J).

11.4.2. Inside the Rail Corridor

Access Route and Station Box Construction

Eleven (11) trees were removed to allow for the truck access route and construction of the station box as indicated in Figure 14 below. Due to the highly constrained nature of the site there was no opportunity to retain these trees.

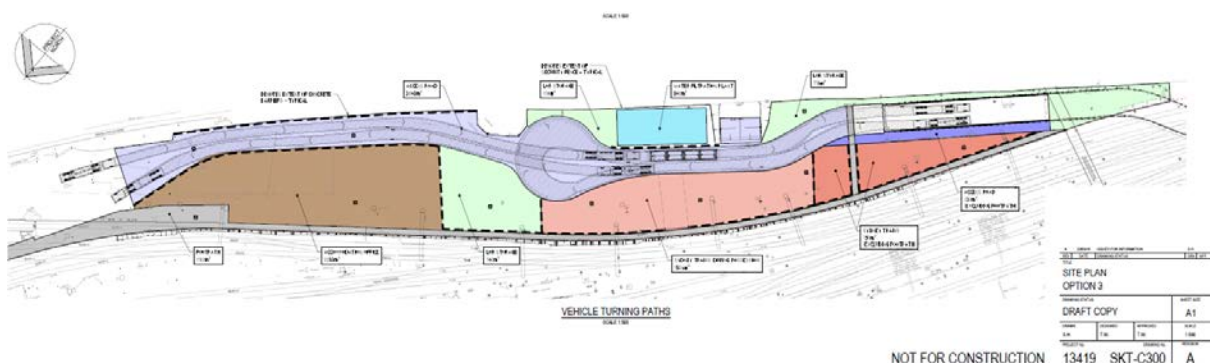


Figure 14: Site Plan Central Rail Corridor Works

Vegetation within the subject site was found to consist of Urban Native/ Exotic Vegetation which had previously been planted. No remnant native vegetation was identified during the survey. No trees were retained within this site.

Combined Services Route

To the south of Lee St substation, a service route is to be installed to carry High Voltage (HV) cables and a pad mount substation is to be built. Three (3) trees are located at the southern end of the substation and will need to be removed. See Figure 14.1 below. The 3 trees have low retention value. Due to the highly constrained nature of the site there was no opportunity to retain these trees.



Figure 14.1: Tree impact for CSR and pad mount substation

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Central Station Rail Corridor	Sydney City Council	1	Celtis occidentalis	Hackberry	9.5	12.5	2 x 100 4 x 220	Rev Y, 06-04-18	Remove	Removed	Site restraints require the removal of all trees within the rail corridor
		2	Celtis occidentalis	Hackberry	8.2	8	4 x 200 3 x 350		Remove	Removed	
		3	Ulmus procera	English elm	14	9	532		Remove	Removed	
		4	Jacaranda mimosifolia	Jacaranda tree	12.5	13.6	636		Remove	Removed	
		5	Cyathea cooperi	Cooper's tree fern	3.5	3	193		Remove	Removed	
		6	Cyathea cooperi	Cooper's tree fern	6	3.5	215		Remove	Removed	
		7	Phoenix canariensis	Canary Island date palm	8	6	800		Remove	Removed	
		8	Cyathea cooperi	Cooper's tree fern	5	1.5	244		Remove	Removed	
		9	Phoenix canariensis	Canary Island date palm	5.5	4.5	1000		Remove	Removed	
		10	Celtis occidentalis	Hackberry	9	8	150 275 325		Remove	Removed	
		11	Celtis occidentalis	Hackberry	8.5	9	100 2 x 150 250		Remove	Removed	
		12	Celtis sinensis	Japanese hackberry	9	15	530	Rev 10, 17/10/2019	Remove	Removed	Site restraints require the removal of three (3) trees
		13	Celtis sinensis	Japanese hackberry	9	10	440		Remove	Removed	
		14	Eriobotrya japonica	Loquat	3	4	150		Remove	Removed	
Regent Street, Chippendale		1	Populus nigra 'Italica'		12	4	650	Rev O, 29-11-17	Remove	Removed	Site constraints prevent relocation or modification of the entrance to the Sydney Yard Access Bridge in order to minimise impact to these two (2) trees.
		2	Planatus x hybrida		9	5	230		Remove	Removed	

12. Waterloo

12.1. Location

The Waterloo site is bounded by Botany Road, Cope Street, Wellington Street and Raglan Street, Waterloo (Figure 15).



Figure 15: Location plan showing the site bounded by Botany Road, Cope Street, Wellington Street and Raglan Street, in Waterloo

12.2. Existing Environment

The site includes several street trees on Botany Road, Wellington Street and Raglan Street. There are no street trees on Cope Street or within the site boundary. Refer to appendix K for further detail.

12.3. Site Works

Works conducted at the Waterloo Station include:

- Site establishment requiring the installation of driveways and hoarding for site security, dust and noise management
- Demolition of buildings
- Excavation of the station caverns and other underground pedestrian connections from the shafts
- Spoil removal

12.4. Tree Impact Assessment

19 trees were surveyed at the Waterloo site which is bounded by Botany Road, Raglan Street, and Wellington Street. Pruning of trees numbered 60002, 60004 to 60005, 60009 to 60013, and 60019 was approved to allow safe site access.

The site was assessed and designed to minimise the removal of trees wherever possible however, after consideration of the site constraints, the following trees were removed:

- Trees numbered 60007 and 60008 to allow for access to the piling rig and safe installation of bored piles, safe site access and the relocation of the bus stop
- Trees numbered 60003, 60015 to allow installation of driveways.

Trees numbered 60001, 60014, and 60018 were approved to be removed however they were able to be retained.

Trees numbered 60006 and 60016 to 60017 were removed by council due to damage not related to the Project.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification	
Wellington Street	City of Sydney	60001	Melaleuca quinquenervia	Broad leaf paper-bark	13	11	485 530	Rev J, 13-10-17	Remove	Retained	<p>Trees numbered 60002, 60004 to 60006 may require minor trimming.</p> <p>Tree numbered 60001 requires removal to allow for access to the piling rig and safe installation of the bored piles.</p> <p>Tree numbered 60003 is located on the Botany Road and Wellington Street site driveway entrances. Installation of the driveways will require the trees to be removed. The trees will also restrict vision when vehicles are entering and exiting the site which poses a safety hazard to pedestrians and traffic.</p> <p>Tree numbered 60007 and 60008 are required to be removed due to the bus stop relocation. The bus stop relocation is due to the safety clearance requirements required for the TSE site access.</p> <p>Tree numbered 60006 was removed by council 12-April-2018 due to damage not related to the Project.</p> <p>Minor trimming of tree 60009 may be required to allow for the bus stop relocation. The bus stop relocation is due to the safety clearance requirements required for the TSE site access.</p> <p>Trees numbered 60010 to 60013, 60016, 60017 and 60019 may require minor trimming.</p> <p>Trees numbered 60014, 60015 and 60018 are located on the Botany Road and Wellington Street site driveway entrances. Installation of the driveways will require the trees to be removed. The trees will also restrict vision when vehicles are entering and exiting the site which poses a safety hazard to pedestrians and traffic.</p> <p>Trees numbered 60016 and 60017 were removed by local council due to damage not related to the Project.</p>	
		60002	Tristanopsis laurina	Water gum	2.75	1	20	Rev H, 14-09-17	Prune	Retained		
		60003			4	4	98 2 x 120	Rev I, 25-09-17	Remove	Removed		
Botany Road		60004	Platanus orientalis 'Digitata'	Cut leaf plane	6	7	332	Rev H, 14-09-17	Prune	Retained		
		60005	Lophostemon confertus	Brushbox	6	2	91		Prune	Retained		
		60006	Robinia pseudoacacia 'Frisia'	Golden robinia	6.5	8	150		Prune	Removed		
		60007			6	4	2 x 80	Rev M, 13-11-17	Remove	Removed		
		60008			6	5	122	Rev T, 22-02-18	Remove	Removed		
		60009	Lophostemon confertus	Brushbox	7.6	9	310	Rev M, 13-11-17	Prune	Retained		
		60010	Platanus orientalis 'Digitata'	Cut leaf plane	6	12	440	Rev H, 14-09-17	Prune	Retained		
		60011	Lophostemon confertus	Brushbox	7	4	215		Prune	Retained		
		60012			6	6.5	230		Prune	Retained		
		60013			6.5	6	207		Prune	Retained		
		60014	Platanus acerifolia	London plane	6.5	5	210	Rev J, 13-10-17	Remove	Retained		
		60015	Robinia pseudoacacia 'Frisia'	Golden robinia	7	4	158	Rev I, 25-09-17	Remove	Retained		
		60016			6	5	152	Rev H, 14-09-17	Prune	Removed		
		60017			5.5	4	117		Prune	Removed		
		Raglan Road	60018	Lophostemon confertus	Brushbox	4.5	6.5	210	Rev J, 13-10-17	Remove		Retained
			60019			9.5	10	318	Rev H, 14-09-17	Prune		Retained

13. Marrickville

13.1. Location

The Marrickville site is bounded by Bedwin Road, Sydney Steel Road, Edinburgh Street, and the Marrickville rail corridor (Figure 16).

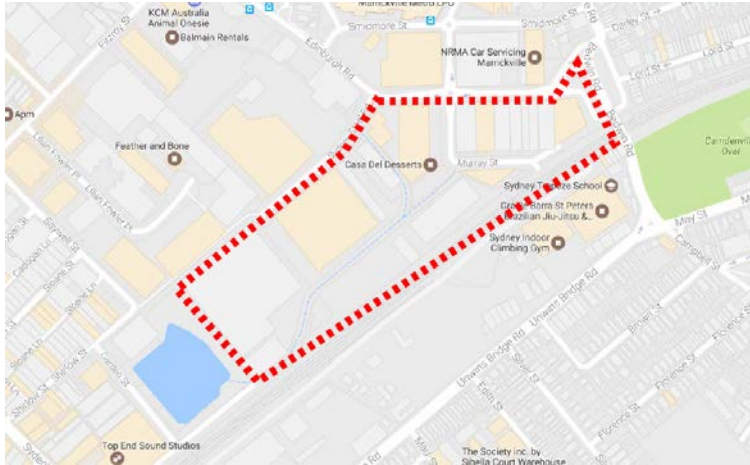


Figure 163: Location plan showing the site bounded by Bedwin Road, Sydney Steel Road, Edinburgh Road, and the rail corridor, in Marrickville

13.2. Existing Environment

Numerous street trees are located on Sydney Street Road, Edinburgh Street and Bedwin Street. Additionally, trees are also located along the south eastern rail corridor boundary and within the footprint of the site. Refer to appendix L for further detail.

13.3. Site Works

Works associated with the Marrickville site include:

- Site establishment requiring construction of driveways and the installation of hoarding for site security, dust and noise management
- Demolition of buildings
- Excavation and construction of the dive structure and the tunnel portal
- Launching and supporting two (2) TBMs
- Manufacturing the pre-cast concrete tunnel lining segments
- Supporting the construction of the southern services facility
- Supporting the fit-out of the tunnel rail systems
- Earthworks and Drainage for the stabling yard

13.4. Tree Impact Assessment

287 trees located outside the rail corridor were surveyed at the Marrickville site bounded by Bedwin Road, Railway Parade, Edinburgh Road, Sydney Steel Road, the pedestrian walkway and within the site boundary.

Approval was granted for the following trees to be pruned:

- Trees numbered 80099 and 80102 to 80105 were approved to be pruned as branches were encroaching on the road boundary of Bedwin Road and Railway Parade
- Tree numbered 2 to 8 and 10 were approved to be pruned due to causing safety concerns, obstructing traffic diversions during Local Area Works along Edinburgh Road.

The site was assessed and designed to minimise the removal of trees wherever possible however, after consideration of the site constraints, the following trees were removed:

- Trees numbered 80001 to 8004, 80012, 80013, 80084 to 80095, 80118 to 80259, and 80268 to 80277 were removed to allow for TSE site establishment works; including an internal roadway that enables safe access for semitrailers, installation of site offices and amenities, allowance for Stabling Yard drain diversion, installation of a spoil conveyor system, safe crane and piling rig access to rail corridor, installation of sight screens and noise walls, and installation of a HV powerline that is required for the worksite
- Trees numbered 80107 to 80109 have been removed to service an egress point
- Trees numbered 80114 to 80117 were removed to enable building demolition for the purpose of a segment storage area
- Trees numbers 80016 to 80020, 80024, 80028, and 80030 to 80034, 80036, 80050 to 80058 and 80060 have been removed for the installation of a 3m high hoarding required to secure the earthworks and drainage worksite and to allow for the installation of new perimeter stormwater drainage as dictated by the flood model. The positioning of the hoarding in this location will eliminate the need for the hoarding to be relocated whilst providing an additional area for the safe operation of the precast yard operations and haul road.
- Trees numbered 80096 to 80098 have been removed for the above purpose also as the design now interferes with the kerb on Railway Parade and Tree number 80111 has been removed due to the demolition of the footpath enabling the installation of the perimeter drainage along Edinburgh Road. Additionally trees numbered 80021 to 80023 have also been removed due to utility installations and footpath works.
- Revision 08 of the Tree Report indicated that trees numbered 80005 to 80011, 80014, 80015, 80035, 80040 to 80048, 80082, and 80083 (approved for removal in revision X) were able to be saved. However, development of the perimeter stormwater drainage as dictated by the flood model now requires trees 80009 to 80011 to be removed. Trees 80014, 80015, 80040 to 80048 and 80082 to 80083 are within the site perimeter and will also now be directly impacted by the bulk earthworks and removal and installation of culverts. During utility design development tree number 80035 has been removed to enable the deconstruction of the kerb and installation of RCD services.
- Trees numbered 80037 to 80039 have been removed for the safe operations of the precast yard operations and stabling yard

- Trees numbered 80061 to 80081 have been removed to enable the relocation of the existing culvert along Murray Street and a new box culvert system to be constructed, to meet the requirements of the flood modelling design for the project and to enable the safe operation of the precast yard operations and haul road. Tree numbers 80025 to 80027, 80029, 80049, 80059 and 80112 to 80113 have been removed to enable the safe installation of the box culvert system.
- Trees numbered 80101 (approved for pruning in revision I) has now been removed due to Local Area Works along Railway Parade, as it falls within the footprint of the excavation area.
- Tree number 1, has now been surveyed as it has grown to be classified as a tree based on the CoA definitions. The tree is located on the corner of Murray Street and Edinburgh Road. This tree has been removed to enable the relocation of the existing culvert along Murray Street and a new box culvert system to be constructed, to meet the requirements of the flood modelling design for the project.
- Tree number 9, intersects with a road crossing for the Ausgrid Trench and has been removed to enable the LAW to be completed.

Tree numbered 80100 was approved for pruning in revision I and approved for removal in Rev 14 due to Local Area Works along Railway Parade, however this tree was able to be retained.

- Trees numbered 80005 to 80008 and trees numbered 80106 and 80110 were approved to be removed to enable the demolition of the footpath enabling the installation of the perimeter drainage but have been able to be retained.

All trees retained within the site area are protected in accordance with Australian Standard AS 4970 'Tree protection in development sites' to avoid/ minimise potential impacts during the proposed works.

Utility Works

Arborist surveys have been undertaken on all trees located adjacent to, or across the road from utility works required to support construction activities (Figure 17 and Figure 18). These trees were numbered from 80278 to 80342. Impacts to these trees were able to be mitigated during the works.

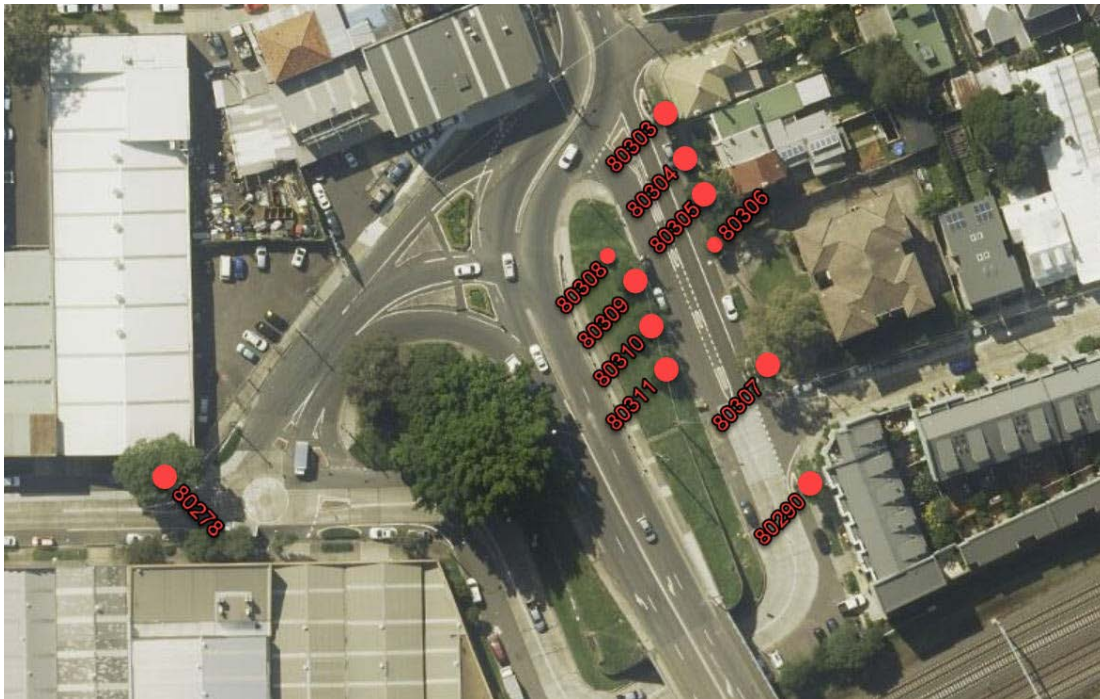


Figure 17: Edinburgh Road Utility Tree Survey



Figure 18: Lord Street Utility Tree Survey

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Sydney Steel Road	Inner West Council	80001	Plumeria rubra	Frangipani	3	4	45	Rev I, 25-09-17	Remove	Removed	Removal to allow for the establishment of an internal roadway that will enable semi-trailers to safely access site and be loaded with the precast segments.
		80002			3	3	2 x 105		Remove	Removed	
		80003	Callistemon viminalis	Weeping bottlebrush	4	4	127 2 x 140 150		Remove	Removed	
		80004	Plumeria rubra	Frangipani	3	3	2 x 55 2 x 75 2 x 85		Remove	Removed	
		80005	Callistemon viminalis	Weeping bottlebrush	6	8	198 285	Originally Rev X, 21-03-18, retained in Rev 8.	Remove	Retained	To enable the safe operation of the Precast Yard haul road. During earlier project stages the Marrickville site was identified as the most appropriate, and approved for, Precast Yard operations, which includes a haul road to transport segments.
		80006	Melaleuca lineariifolia	Snow in summer	7	7	530	Rev 9, 10-09-19	Remove	Retained	
		80007			7	4	94 146		Remove	Retained	
		80008			7	3.5	210		Remove	Retained	
		80009			7	4	159 198		Remove	Removed	
		80010	Eucalyptus botryoides	Bangalay	17	25	1010	Rev X, 21-03-18	Remove	Removed	Tree is located within the perimeter of the site and will be in directly impacted by Earthworks due to the installation of perimeter stormwater drainage line. The location of drainage is dictated by the flood model and has to run below the kerb and gutter.
		80011	4	5	262	Remove	Removed				
80012	Melaleuca lineariifolia	Snow in summer	5	6	360 410	Remove	Removed				
Sydney Steel Rd,	Inner West Council	80013	Melaleuca lineariifolia	Snow in summer	9	8	284 300	Originally Rev X, 21-03-18, retained in Rev 8. Now remove Rev 9, 10-09-19	Remove	Removed	To enable the safe operation of the Precast Yard haul road. During earlier project stages the Marrickville site was identified as the most appropriate, and approved for, Precast Yard operations, which includes a haul road to transport segments.
		80014	Citrus spp.	Citrus tree	4.5	3.5	130 140		Remove	Removed	
Sydney Steel Road	Inner West Council	80015	Melaleuca lineariifolia	Snow in summer	8.5	5.5	450	Rev 02, 21-09-18	Remove	Removed	Tree is within the site perimeter and will be directly impacted by the Earthworks scope of works.
		80016	Melaleuca quinquenervia	Broad leaf paper-bark	9	8	494		Remove	Removed	
80017	7	6			94 157	Remove	Removed				
Sydney Steel Road	Inner West Council	80018	Celtis occidentalis	Hackberry	10	7	235 258	Rev 02, 21-09-18	Remove	Removed	Trees previously approved to be removed (Rev 02). Visual inspections have been undertaken relating to hoarding alignment, and the location of the hoarding has been altered to reduce the impact on nine trees numbered 80021 -80023, 80025 to 80027, 80029, 80049 and 80059. However, these trees 80016 – 80020 are required to be removed as they are within the alignment of the 3m high hoarding, required to secure the earthworks and drainage worksite. The root zone of these trees also crosses over the location of the new perimeter drainage, which is being installed to minimise the risk of flooding within the local area.
		80019	Celtis occidentalis	Hackberry	9	9	217		Remove	Removed	
		80020	Cupaniopsis anacardioides	Tuckeroo	10	8	316		Remove	Removed	
		80021	Casuarina glauca	Swamp oak	16	10	393 408	Rev 9, 10-09-19	Remove	Removed	Positioning the hoarding in this location eliminates the need for the hoarding to be relocated, preventing the need for re-work whilst providing an additional area for the safe operation of the precast yard haul road and storage area.
		80022			15	7	366		Remove	Removed	
		80023			14.5	6	280		Remove	Removed	
		80024	Cupaniopsis anacardioides	Tuckeroo	10	7	410	Rev 02, 21-09-18	Remove	Removed	Trees previously approved to be removed (Rev 02). Visual inspections have been undertaken relating to hoarding alignment, and the location of the hoarding has been altered to reduce the impact on nine trees numbered 80021 -80023, 80025 to 80027, 80029, 80049 and 80059. However, tree 80024 is required to be removed as it is within the alignment of the 3m high hoarding, required to secure the earthworks and drainage worksite. The root zone of this tree also crosses over the location of the new perimeter drainage, which is being installed to minimise the risk of flooding within the local area.
80025	Melaleuca quinquenervia	Broad leaf paper-bark	9	12	465	Rev 9, 10-09-19	Remove	Removed	Trees previously approved to be removed (Rev 02)for the safe installation of 3m high hoarding to support the earthworks and drainage scope / design. Trees later identified (Rev 09) as being required to be removed for installation of perimeter drainage to minimise the risk of flooding as per the flood modelling design and to prevent the need for re-work and additional noise, traffic impacts. These trees are 800mm from the new box culvert meaning these trees will need to be removed to enable the construction of the new box culvert which requires the removal of the footpath thus directly impacting the tree.		
80026			6	4	287		Remove	Removed			
80027			Eucalyptus grandis	Flooded gum	18		10	513		Remove	Removed
Edinburgh Road	Inner West Council	80028	Eucalyptus microcorys	Tallow wood	20	14	730	Rev 02, 31-09-18	Remove	Removed	Trees previously approved to be removed (Rev 02). Visual inspections have been undertaken relating to hoarding alignment, and the location of the hoarding has been altered to reduce the impact on nine trees numbered 80021 -80023, 80025 to 80027, 80029, 80049 and 80059. However, Tree 80028 is required to be removed as it is within the alignment of the 3m high hoarding, required to secure the earthworks and drainage worksite. The root zone of this tree also crosses over the location of the new perimeter drainage, which is being installed to minimise the risk of flooding within the local area. Positioning the hoarding in this location eliminates the need for the hoarding to be relocated, preventing the need for re-work whilst providing an additional area for the safe operation of the precast yard haul road and storage area.

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification		
Sydney Steel Rd, Edinburgh Rd and Murray St	Inner West Council	80029	Eucalyptus tereticornis	Forest red gum	16.5	9	495	Rev 9, 10-09-19	Remove	Removed	Tree previously approved (Rev 02) to be pruned to allow for the safe installation of 3m high hoarding to support the earthworks and drainage scope / design. Trees later identified (Rev 09) as being required to be removed for installation of perimeter drainage to minimise the risk of flooding as per the flood modelling design and to prevent the need for re-work and additional noise, traffic impacts. The tree is 800mm from the new box culvert meaning this tree and will need to be removed to enable the construction of the new box culvert which requires the removal of the footpath thus directly impacting the tree.		
		80030	Melaleuca quinquenervia	Broad leaf paper-bark	10.5	6	480	Rev 02, 31-09-18	Remove	Removed	Tree previously approved (Rev 02). Visual inspections have been undertaken relating to hoarding alignment, and the location of the hoarding has been altered to reduce the impact on nine trees numbered 80021 -80023, 80025 to 80027, 80029, 80049 and 80059. However, these trees 80030 – 80039 are required to be removed as they are within the alignment of the 3m high hoarding, required to secure the earthworks and drainage worksite. The root zone of these trees also crosses over the location of the new perimeter drainage, which is being installed to minimise the risk of flooding within the local area.		
		80031	Cupaniopsis anacardioides	Tuckeroo	4	3	77		Remove	Removed			
		80032			40	1	40		Remove	Removed			
		80033	0	0	0	Remove	Removed						
		80034	Melaleuca stypheloides	Prickly paper-bark	9	7	3 x 120 2 x 150 180		Remove	Removed			
		80035	Acmena smithii minor	Dwarf lilly pilly	3.5	3	3 x 52 80	Rev 9, 10-09-19	Remove	Removed	This tree may potential to prune to enable services to be brought into the RCD area. However on review (Rev 09) it will be required to be removed to enable kerb replacement along Edinburgh Road.		
		Sydney Steel Rd, Edinburgh Rd and Murray St	Inner West Council	80036	Cupaniopsis anacardioides	Tuckeroo	7	6	2 x 110 175	Rev 02, 31-09-18	Remove	Removed	These trees 80037-80039 are required to be removed to enable the safe operation of the precast storage yard as they are situated within the site and future stabling yard.
				80037					Remove		Removed		
				80038					Remove		Removed		
80039							Remove	Removed					
Sydney Steel Rd, Edinburgh Rd and Murray St	Inner West Council	80040	Melaleuca linearifolia	Snow in summer	8	6	410 440	Rev 9, 10-09-19	Remove	Removed	These trees are within the site perimeter and will be directly impacted by the Earthworks package as the Trees are runs along the current culvert which will be backfilled and the land developed as part of the Stabbling Yard.		
		80041			6	5	120 145 180		Remove	Removed			
		80042	Callistemon viminalis	Weeping bottlebrush	4	5	2 x 40 2 x 130		Remove	Removed			
80043	Melaleuca linearifolia	Snow in summer	9	8	540	Remove	Removed						
Between Sydney Steel Rd and the Rail Corridor	Inner West Council	80044	Acacia decurrens	Green wattle	7	4	135		Rev 9, 10-09-19	Remove		Removed	
		80045	Melaleuca stypheloides	Prickly paper-bark	11	9	2 x 160 175 237			Remove		Removed	
		80046			12	6	120 178			Remove		Removed	
		80047			12.5	6	135 1 x 205			Remove		Removed	
		80048	13	10	150 2 x 175 2.250	Remove	Removed						
Edinburgh Road	Inner West Council	80049			7	8	205	Rev 9, 10-09-19	Remove	Removed	Tree previously approved (Rev 02) to be pruned to allow for the safe installation of 3m high hoarding to support the earthworks and drainage scope / design. However on review (Rev 09) this tree was identified as being required to be removed for perimeter drainage to minimise the risk of flooding as per the flood modelling design and to prevent the need for re-work and additional noise, traffic impacts. Tree is along the perimeter of the Rail Corridor development, the footpath will be removed to enable the installation of the new box culvert. The location of box culvert is dictated by the flood model and has to run below the kerb and gutter.		
		80050	Cupaniopsis anacardioides	Tuckeroo	7	6	193	Rev 02, 21-09-18	Remove	Removed	Visual inspections (Rev 02) have been undertaken relating to hoarding alignment, and the location of the hoarding has been altered to reduce the impact on nine trees numbered 80021 -80023, 80025 to 80027, 80029, 80049 and 80059. However, these trees 80050 - 80058 are required to be removed as they are within the alignment of the 3m high hoarding, required to secure the earthworks and drainage worksite. The root zone of these trees also crosses over the location of the new perimeter drainage, which is being installed to minimise the risk of flooding within the local area.		
		80051	Melaleuca quinquenervia	Broad leaf paper-bark	13	7	460		Remove	Removed			
		80052	Cupaniopsis anacardioides	Tuckeroo	4	2	0		Remove	Removed			
		80053	Lophostemon confertus	Brushbox	12	6	304		Remove	Removed			
		80054	Celtis occidentalis	Hackberry	43	3	Multi stem		Remove	Removed			
		80055	Eucalyptus microcorys	Tallow wood	6	3	170		Remove	Removed			
		80056	Lophostemon confertus	Brushbox	8	9	296		Remove	Removed			
		80057	Eucalyptus microcorys	Tallow wood	16	10	580		Remove	Removed			
		80058	Melaleuca linearifolia	Snow in summer	6	3	275	Remove	Removed				
80059	Eucalyptus microcorys	Tallow wood	16	10	363	Rev 9, 10-09-19	Remove	Removed	Tree previously approved (Rev 02) There is the potential that this tree may need to be pruned to allow for the safe installation of 3m high hoarding to support the earthworks and drainage scope / design. However on review (Rev 09) this tree was identified as being required to be removed to include perimeter drainage to minimise the risk of flooding as per the flood modelling design and to prevent the need for re-work and additional noise, traffic impacts. Tree clashes with the earthworks package, footpath is being removed to enable to installation of a new box culvert as per the flood management model. The location of box culvert is dictated by the flood model and has to run below the kerb and gutter.				

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification	
		80060	Lophostemon confertus	Brushbox	7	5	Multi stem		Remove	Removed	Visual inspections have been undertaken relating to hoarding alignment, and the location of the hoarding has been altered to reduce the impact on nine trees numbered 80021 -80023, 80025 to 80027, 80029, 80049 and 80059. However, tree 80060 is required to be removed as it is within the alignment of the 3m high hoarding, required to secure the earthworks and drainage worksite. The root zone of this tree also crosses over the location of the new perimeter drainage, which is being installed to minimise the risk of flooding within the local area. Positioning the hoarding in this location eliminates the need for the hoarding to be relocated, preventing the need for re-work whilst providing an additional area for the safe operation of the precast yard haul road and storage area.	
Murray Street		80061	Eucalyptus microcorys	Tallow wood	12	13	473	Rev 02, 21-09-18	Remove	Removed	Trees 80061 – 80083 need to be removed to enable the relocation of the culvert system, to meet the requirements of the flood modelling for the project. This will also assist in the safe operation of the precast yard haul road and storage area. During earlier project stages the Marrickville site was identified as the most appropriate, and approved for, precast yard operations, which includes a haul road to transport segments. Trees 80082 and 80083 are located within the middle of the stabling yard and the tree will be directly impacted by the installation of the new box culvert. The location of box culvert is dictated by the flood model and has to run below the kerb and gutter.	
		80062			13	12	445		Remove	Removed		
		80063			12	12.5	425		Remove	Removed		
		80064			14	13	510		Remove	Removed		
		80065			13.5	13	520		Remove	Removed		
		80066	Lophostemon confertus	Brushbox	5	3	Multi stem		Remove	Removed		
		80067	Eucalyptus species	Gum tree	10	9	322		Remove	Removed		
		80068	Melaleuca quinquenervia	Broad leaf paper-bark	8.5	6	355		Remove	Removed		
		80069	Callistemon viminalis	Weeping bottlebrush	3	3	Multi stem		Remove	Removed		
		80070	Melaleuca quinquenervia	Broad leaf paper-bark	7	5	42		Remove	Removed		
		80071	Eucalyptus microcorys	Tallow wood	12	15	600		Remove	Removed		
		80072	Acacia decurrens	Green wattle	4	4	90 105		Remove	Removed		
		80073	Eucalyptus microcorys	Tallow wood	14	14	585		Remove	Removed		
		80074			13	14	550		Remove	Removed		
		80075	Melaleuca quinquenervia	Broad leaf paper-bark	13	3	Multi stem		Remove	Removed		
		80076			15	5	Multi stem		Remove	Removed		
		80077			15	15	616		Remove	Removed		
		80078	Eucalyptus microcorys	Tallow wood	14	15	620		Remove	Removed		
		80079			15	15	676		Remove	Removed		
		80080	Melaleuca quinquenervia	Broad leaf paper-bark	11	5	280		Remove	Removed		
80081	10	6			460	Remove	Removed					
80082	Banksia integrifolia	Coast Banksia	2	2	Multi stem	Rev 9, 10-09-19	Remove	Removed				
80083	Banksia integrifolia	Coast banksia	3	3	Multi stem		Remove	Removed				
Murray Street		80084	Celtis occidentalis	Hackberry	5	7	100		Remove	Removed	Removal to allow for the installation of a concrete base slab for the installation of site offices and part of the spoil conveyor system.	
Between Railway Parade and Murray Street	Inner West Council	80085	Nerium oleander	Oleander shrub	3	3		Rev I, 25-09-17	Remove	Removed	Trees numbered 80085 to 80096 will be removed to allow for safe access to the piling rig to install the bored piles along the dive structure.	
		80086			3	0			Remove	Removed		
		80087			3	3			Remove	Removed		
		80088			3	3			Remove	Removed		
		80089			3	3			Remove	Removed		
		80090			3	3			Remove	Removed		
		80091			3	3			Remove	Removed		
		80092			3	3			Remove	Removed		
		80093			3	3			Remove	Removed		
		80094			3	3			Remove	Removed		
		80095	Hibiscus rosa-sinensis	Hibiscus - Rose of China	3	3			Rev I, 25-09-17	Remove		Removed
		80096	Acmena smithii minor	Dwarf lilly pilly	3.5	2	115		Rev 9, 10-09-19	Remove		Removed
		80097			4	3	70 80			Remove		Removed
		80098			3	3	142			Remove		Removed

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification				
traffic island between Railway Parade and Bedwin Road,		80099	Ficus microcarpa var hillii	Hill's weeping fig	20	26	1420	Rev I, 25-09-17	Prune	Retained	Trees numbered 80099 may need to be pruned during early site works. In addition, tree 80099 is required to be pruned to a height of 5m above street level during works being undertaken in September 2018. Pruning is required to clear the line-of-sight for approaching drivers to view both the traffic signals and pedestrians crossing Edinburgh Road. RMS has approved the design of the traffic signals as part of the Bedwin Rd intersection upgrade. This intersection upgrade includes signalisation of the intersection to permit safe movements of heavy vehicles from the Marrickville TBM worksite. The concept design detailed in the EIS identifies the intersection upgrade, specifically the signal which requires a line-of-sight to be cleared. Pruning of the overhanging branches has been undertaken by Inner West Council previously.				
		80100	Elaeocarpus reticulatus	Blueberry ash	4	2	62	Rev 11, 03-04-20	Remove	Retained	Trees numbered 80100 and 80101 are required to be removed as they fall within the excavation area for the Local Area Works undertaken along Railway Parade.				
		80101			3	2	74		Remove	Removed					
		Edinburgh Road		80102	Lophostemon confertus	Brushbox	11	14	315 346 453	Rev I, 25-09-17	Prune	Retained	Trees numbered 80102 to 80105 may need to be pruned during early site works. RMS has approved the design of the traffic signals as part of the Bedwin Rd intersection upgrade. This intersection upgrade includes signalisation of the intersection to permit safe movements of heavy vehicles from the Marrickville TBM worksite. The concept design detailed in the EIS identifies the intersection upgrade, specifically the signal which requires a line-of-sight to be cleared. Pruning of the overhanging branches has been undertaken by Inner West Council previously.		
				80103	Corymbia citriodora	Lemon scented gum	9	10.5	478		Prune	Retained			
				80104	Elaeocarpus reticulatus	Blueberry ash	5	4	125		Prune	Retained			
				80105			5	4	127		Prune	Retained			
				80106	Callistemon viminalis	Weeping bottlebrush	7	6.5	165 187 240		Rev 9, 10-09-19	Remove		Retained	Tree is on the corner of Railway parade and Edinburgh road and will be required to be removed due to footpath demolition and reinstatement of the new pavement in accordance with the design.
				80107			7	4.5	225		Remove	Removed			
		Edinburgh Road		80108	Melaleuca quinquenervia	Broad leaf paper-bark	8	7	245	Rev X, 21-03-18	Remove	Removed	Tree is within the footprint of a planned egress point. A dedicated egress point is required because there is not enough space within the Dive/TBM site for a turning circle and to control sediment, the Precast Yard and Dive/TBM haul roads are planned to remain separate.		
80109	Callistemon viminalis			Weeping bottlebrush	9	6.5	214 249	Remove	Removed						
80110					9	7	315	Remove	Retained						
80111	Acmena smithii minor			Dwarf lilly pilly	4	5	75 3 x 105	Rev 9, 10-09-19	Remove	Removed	Culvert design has been reviewed and can be shortened by 15m enabling the tree to be retained. However due to the footpath demolition and reinstatement of the new pavement this tree will be required to be removed.				
80112	Melaleuca bracteata 'Rev. Green'			Revolution Green	8	7	383		Remove	Removed					
Sydney Steel Road		80113	Elaeocarpus reticulatus	Blueberry ash	3	2.5	65	Rev X, 21-03-18	Remove	Removed	The new box culvert will run along Edinburgh Road and will require the removal of the footpath in this location directly impacting the tree. Culvert location is dictated by the flood model and has to run below the kerb and gutter.				
		80114	Ceratopetalum gummiferum	NSW Christmas bush	4	2.5	85 2 x 95 115		Remove	Removed					
Sydney Steel Road, Murray Street and the Rail Corridor		80115	Plumeria rubra	Frangipani	3	4	Multi stem	Rev X, 21-03-18	Remove	Removed	To enable building demolition for the purpose of a planned segment storage area. During earlier project stages the Marrickville site was identified as the most appropriate, and approved for, Precast Yard operations, which includes segment storage.				
		80116	Eucalyptus tereticornis	Forest red gum	18	8	690		Remove	Removed					
		80117	No tree onsite		0	0			Remove	Removed					
		80118	Callistemon viminalis	Weeping bottlebrush	3	3	Multi stem		Remove	Removed					
		80119	Hibiscus rosa-sinensis	Hibiscus - Rose of China	0	0			Remove	Removed					
		80120	Callistemon viminalis	Weeping bottlebrush	3	2	30 120		Remove	Removed		Trees numbered 80118 to 80122 will be removed to allow for the Stabling Yard drain diversion which is part of the final design by TfNSW. Works here will involve the removal of the existing open stormwater canals and replacement with closed culverts.			
80121	Plumeria rubra	Frangipani	2	2.5	70 90	Remove	Removed								
80122			3	3	Multi stem	Remove	Removed								
Sydney Steel Road, Murray Street and the Rail Corridor	Inner West Council	80123	Phoenix canariensis	Canary Island date palm	5	8	1050	Rev I, 25-09-17	Remove	Removed	80123 will be removed to allow for the Stabling Yard drain diversion which is part of the final design by TfNSW. Works here will involve the removal of the existing open stormwater canals and replacement with closed culverts.				
		80124	Cinnamomum camphora	Camphor laurel	8	4	225		Remove	Removed					
		80125	Syncarpia glomulifera	Turpentine	9	4	313		Remove	Removed					
		80126	Schinus areira	Pepper corn	5	5	187 275		Remove	Removed					
		80127	Callistemon viminalis	Weeping bottlebrush	3	3	Multi stem		Remove	Removed					
		80128	Acacia cyanophylla	Orange wattle	4	7	87 110		Remove	Removed					
		80129	Syncarpia glomulifera	Turpentine	6	3.5	200		Remove	Removed					
		80130	Acacia floribunda	Sally wattle	0	0			Remove	Removed					
		80131			0	0			Remove	Removed		Trees numbered 80124 to 80139 will be removed to allow for the establishment of site offices and amenities.			

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification	
		80132	Schinus areira	Pepper corn	4	4	145	Rev I, 25-09-17	Remove	Removed		
		80133	Syncarpia glomulifera	Turpentine	9	8	320		Remove	Removed		
		80134	Cinnamomum camphora	Camphor laurel	9	6	160 180		Remove	Removed		
		80135			8	5.5	210		Remove	Removed		
		80136			8	4	180 217		Remove	Removed		
		80137	Acacia decurrens	Green wattle	0	0			Remove	Removed		
		80138			0	0			Remove	Removed		
		80139			0	0			Remove	Removed		
Murray Street		80140	Celtis occidentalis	Hackberry	12	16	2 x 376 435		Remove	Removed		Removal to allow for the installation of a concrete base slab for the installation of site offices and part of the spoil conveyor system
		80141			6	3	117		Remove	Removed		
		80142	Banksia integrifolia	Coast banksia	6	5	105 2 x 150		Remove	Removed		
Murray Street		80143	Banksia integrifolia	Coast banksia	4.5	3.5	2 x 145		Remove	Removed		Trees numbered 80144 to 80164 will be removed to allow for safe access to the piling rig to install the bored piles along the dive structure. The proposed noise hoarding is still a consideration as the CNVIS is being remodelled to suit the new site layout. The piling is scheduled to be installed before the noise wall.
		80144	Casuarina cunninghamiana	River she oak	8	4	295		Remove	Removed		
		80145			12	8	517		Remove	Removed		
80146	12	8			457	Remove	Removed					
Sydney Steel Road, Murray Street and the Rail Corridor		80147	Eucalyptus sideroxylon	Iron bark	7	4	190		Remove	Removed		
		80148			7	5	277		Remove	Removed		
		80149			5	3	197		Remove	Removed		
		80150	Acacia decurrens	Green wattle	11	6	320		Remove	Removed		
		80151			7	3	152		Remove	Removed		
		80152	7	5	202	Remove	Removed					
		80153	Casuarina cunninghamiana	River she oak	6	3	60 2 x 125		Remove	Removed		
		80154			7	5	2 x 50 2 x 90 2 x 125		Remove	Removed		
		80155			5	2.5	50		Remove	Removed		
		80156			7	3.5	125 145		Remove	Removed		
80157	7	2			Multi stem	Remove	Removed					
80158	7	2			113	Remove	Removed					
80159	7	2.5			160	Remove	Removed					
80160	6	2			90	Remove	Removed					
80161	6	1.5	68	Remove	Removed							
80162	4.5	3	2 x 60	Remove	Removed							
80163	12	7	500	Remove	Removed							
80164	6	2.5	20 30	Remove	Removed							
Sydney Steel Road, Murray Street and the Rail Corridor	Inner West Council	80165	Casuarina cunninghamiana	River she oak	6.5	2.5	83	Rev I, 25-09-17	Remove	Removed	Trees numbered 80165 to 80204 will be removed to allow for safe access to the piling rig to install the bored piles along the dive structure. The proposed noise hoarding is still a consideration as the CNVIS is being remodelled to suit the new site layout. The piling is scheduled to be installed before the noise wall.	
		80166			6	2	75 85		Remove	Removed		
		80167			6	3	128		Remove	Removed		
		80168			6	2	2 x 95 125		Remove	Removed		
		80169			6	3	170		Remove	Removed		
		80170			6	2	93		Remove	Removed		
		80171			10	4	361		Remove	Removed		
		80172			9	4	166 176		Remove	Removed		
		80173			6	3	118	Remove	Removed			

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
		80174			6	3	77 118		Remove	Removed	
		80175			6	2.5	130		Remove	Removed	
		80176	Eucalyptus sideroxylon	Iron bark	9	5	295		Remove	Removed	
		80177	Cupaniopsis anacardioides	Tuckeroo	2	2	3 x 30 47		Remove	Removed	
		80178	Casuarina glauca	Swamp oak	6	3	110		Remove	Removed	
		80179			9	4	195		Remove	Removed	
		80180			4	2	63		Remove	Removed	
		80181	Cupaniopsis anacardioides	Tuckeroo	4	2.5	54 64		Remove	Removed	
		80182	Celtis occidentalis	Hackberry	5	7	2 x 60 2 x 115		Remove	Removed	
		80183	Acacia floribunda	Sally wattle	4.5	4	95 143		Remove	Removed	
		80184			5	5	85 100 130		Remove	Removed	
		80185	No tree onsite		0	0			Remove	Removed	
		80186	Acacia floribunda	Sally wattle	0	0			Remove	Removed	
		80187	Tristaniopsis laurina	water gum	3	2	53		Remove	Removed	
		80188	Acacia floribunda	Sally wattle	3	3	52		Remove	Removed	
		80189	Casuarina glauca	Swamp oak	4	2	35		Remove	Removed	
		80190			6	3	52 135		Remove	Removed	
		80191			5.5	2	70		Remove	Removed	
		80192	Acacia floribunda	Sally wattle	3	3	38 50		Remove	Removed	
		80193	Casuarina glauca	Swamp oak	4	2	34		Remove	Removed	
		80194	Eucalyptus sideroxylon	Iron bark	11	9	280 320		Remove	Removed	
		80195	Dead tree		0	0			Remove	Removed	
		80196	Casurina cunninghamiana	River she oak	11	7	365		Remove	Removed	
		80197	Unidentified spp.		65	104			Remove	Removed	
80198	Casurina cunninghamiana	River she oak	3.5	2	40 50 65	Remove	Removed				
80199	Casuarina glauca	Swamp oak	7	3.5	105	Remove	Removed				
80200			11	6	345	Remove	Removed				
80201			0	0		Remove	Removed				
80202	Eucalyptus haemastoma	Scribbly gum	6	3	243	Remove	Removed				
80203			9	4.5	270	Remove	Removed				
80204	Acacia floribunda	Sally wattle	0	0		Remove	Removed				
Sydney Steel Road, Murray Street and the Rail Corridor	Inner West Council	80205	Acacia floribunda	Sally wattle	0	0		Rev I, 25-09-17	Remove	Removed	Trees numbered 80205 will be removed to allow for safe access to the piling rig to install the bored piles along the dive structure. The proposed noise hoarding is still a consideration as the CNVIS is being remodelled to suit the new site layout. The piling is scheduled to be installed before the noise wall.
		80206			0	0			Remove	Removed	Tree number 80206 will be removed to allow for the Stabling Yard drain diversion which is part of the final design by TINSW. Works here will involve the removal of the existing open stormwater canals and replacement with closed culverts.
		80207	Allocasurina torulosa	Forest oak	8	5	280		Remove	Removed	Trees numbered 80207 to 80221 will be removed to allow for safe access to the piling rig to install the bored piles along the dive structure. The proposed noise hoarding is still a consideration as the CNVIS is being remodelled to suit the new site layout. The piling is scheduled to be installed before the noise wall.
		80208			7	4	120 180		Remove	Removed	
		80209			6	5	183		Remove	Removed	
		80210			6	3.5	154		Remove	Removed	
		80211			6	3	75 150		Remove	Removed	
		80212	4	4	3 x 75	Remove	Removed				

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
		80213	Eucalyptus crebra	Narrow leaf iron bark	12	9	365		Remove	Removed	
		80214	Dead tree		0	0			Remove	Removed	
		80215	Eucalyptus crebra	Narrow leaf iron bark	11	8	375		Remove	Removed	
		80216			13.5	8	338		Remove	Removed	
		80217			12	7	304		Remove	Removed	
		80218	Eucalyptus botryoides	Bangalay	9	7.5	90 348		Remove	Removed	
		80219	Eucalyptus piperita	Sydney peppermint gum	12	7	390		Remove	Removed	
		80220	Eucalyptus crebra	Narrow leaf iron bark	13	6.5	340		Remove	Removed	
		80221			11	5	308		Remove	Removed	
		80222			8.5	6	205		Remove	Removed	
		80223	Celtis occidentalis	Hackberry	3	0			Remove	Removed	
		80224			3	0			Remove	Removed	
		80225			3	0			Remove	Removed	
		80226	Syagrus romanzoffiana	Cocos palm	5	4	250		Remove	Removed	
		80227	Ceratonia siliqua	Carob	3	0			Remove	Removed	
		80228	Ulmus parvifolia	Chinese elm	0	0			Remove	Removed	
		80229	Celtis occidentalis	Hackberry	4	0			Remove	Removed	
		80230			3	0			Remove	Removed	
		80231	Acacia floribunda	Sally wattle	5	8	320		Remove	Removed	
		80232			0	0			Remove	Removed	
		80233			0	0			Remove	Removed	
		80234	Eucalyptus haemastoma	Scribbly gum	4	5	168		Remove	Removed	
		80235	Eucalyptus crebra	Narrow leaf iron bark	11	6	254		Remove	Removed	
		80236			11.5	6			Remove	Removed	
		80237			13	8	310		Remove	Removed	
		80238	Eucalyptus nicholii	Narrow leaf peppermint	7	6	238		Remove	Removed	
		80239	Acacia saligna	Sydney wattle	3	2.5	44		Remove	Removed	
		80240	Eucalyptus botryoides	Bangalay	8	5	175		Remove	Removed	
		80241	Eucalyptus crebra	Narrow leaf iron bark	12	7	360		Remove	Removed	
		80242			12	8	346		Remove	Removed	
		80243	Acacia floribunda	Sally wattle	4	4	145		Remove	Removed	
		80244			0	0			Remove	Removed	
80245	0	0				Remove	Removed				
80246	0	0				Remove	Removed				
80247	0	0				Remove	Removed				
80248	Eucalyptus crebra	Narrow leaf iron bark	8	6	288	Remove	Removed				
Sydney Steel Road, Murray Street and the Rail Corridor		80249	Eucalyptus crebra	Narrow leaf iron bark	11	4	257	Remove	Removed	Trees numbered 80239 to 80259 will be removed to allow for safe access to the piling rig to install the bored piles along the dive structure.	
		80250			10	4	265	Remove	Removed		
		80251	Eucalyptus botryoides	Bangalay	5.5	5	235	Remove	Removed		
Garden Street and Railway Parade	Inner West Council	80252	Eucalyptus pilularis	Blackbutt	13	11	565	Rev N, 22-11-17	Remove		Removed
		80253	Eucalyptus pilularis	Blackbutt	9	7	275	Rev N, 22-11-17	Remove		Removed
		80254	Eucalyptus crebra	Narrow leaf iron bark	12	4.5	200	Rev N, 22-11-17	Remove		Removed
		80255			13	5	305	Rev N, 22-11-17	Remove		Removed
		80256			10	5	380	Rev N, 22-11-17	Remove		Removed
		80257	Eucalyptus pilularis	Blackbutt	8	5.5	175	Rev N, 22-11-17	Remove		Removed
		80258	Cupaniopsis anacardioides	Tuckeroo	5	4	115	Rev N, 22-11-17	Remove		Removed
		80259	Eucalyptus pilularis	Blackbutt	13	8	370	Rev N, 22-11-17	Remove		Removed
		80260	Casurina glauca	Swamp oak	12	5.5	275	Rev H, 14-09-17	Retain		Retained

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
Garden Street and Railway Parade		80261	Melaleuca stypheloides	Prickly paper-bark	10	8	260 275	Rev L, 02-11-17	Retain	Retained	
		80262	Eucalyptus scoparia	Willow gum	15	10	250 300		Retain	Retained	
		80263	Eucalyptus robusta	Swamp mahogany	14.5	4	250		Retain	Retained	
		80264			16.5	14	620		Retain	Retained	
		80265	Corymbia ficifolia	Red flowering gum	4	6	85		Retain	Retained	
		80266	Eucalyptus microcorys	Tallow wood	15.5	17	690		Retain	Retained	
		80267	Corymbia maculata	Spotted gum	15	9	465		Retain	Retained	
		80268	Angophora costata	Smooth bark apple	7.5	6	256		Remove	Removed	Trees numbered 80268 to 80275 will be removed to allow for the establishment of precast site offices and amenities. Site constraints has also required the amenities block to be located in this area. This area has been assessed and approved in a consistency assessment by TfNSW.
		80269	Syncarpia glomulifera	Turpetine	6	2.5	140		Remove	Removed	
		80270	Angophora costata	Smooth bark apple	6	4	150		Remove	Removed	
Garden Street and Railway Parade		80271	Angophora costata	Smooth bark apple	6	4	120 195	Rev N, 22-11-17	Remove	Removed	Trees numbered 80268 to 80275 will be removed to allow for the establishment of precast site offices and amenities. Site constraints have also required the amenities block to be located in this area. This area has been assessed and approved in a consistency assessment by TfNSW.
		80272			6	4	2x145		Remove	Removed	
		80273			7.5	3	250		Remove	Removed	
		80274			9	5	288		Remove	Removed	
		80275			4	3	120 140		Remove	Removed	
		80276	Schefflera actinophylla	Umbrella tree	5.5	3	100	Rev I, 25-09-17	Remove	Removed	Removal to allow for the installation of a HV powerline that is required for the Marrickville worksite. The alignment cannot be moved away from the structural root zones of the trees due to the Ausgrid easement constraints and property boundaries.
		80277	Ficus elastica	Indian rubber tree	10.5	9	Multi stem		Remove	Removed	
Edgeware/ Lord/ Council/ May Streets		80278	Lophostemon confertus	Brush box	12.5	16	850	Rev X, 21-03-18	Retain	Retained	
		80279	Backhousia citriodora	Lemon myrtle	3.5	1	55 50		Retain	Retained	
		80280	Backhousia citriodora	Lemon myrtle	<1	<1	-		Retain	Retained	
		80281	Backhousia citriodora	Lemon myrtle	4	1	70		Retain	Retained	
		80282	Backhousia citriodora	Lemon myrtle	3	1	80		Retain	Retained	
		80283	Backhousia citriodora	Lemon myrtle	2.5	1	40		Retain	Retained	
		80284	Backhousia citriodora	Lemon myrtle	3.5	1	75		Retain	Retained	
		80285	Backhousia citriodora	Lemon myrtle	2.5	1	40		Retain	Retained	
		80286	Backhousia citriodora	Lemon myrtle	4	1	50 50		Retain	Retained	
		80287	Callistemon viminalis	Weeping bottle brush	9	6	320		Retain	Retained	
		80288	Backhousia citriodora	Lemon myrtle	3.5	1.5	75		Retain	Retained	
		80289	Backhousia citriodora	Lemon myrtle	2	2	25 30		Retain	Retained	
		80290	Backhousia citriodora	Lemon myrtle	8.5	10	220		Retain	Retained	
Edgeware/ Lord/ Council/ May Streets	Inner West Council	80291	Robinia pseudoacacia	Golden Robinia	5	2	45 70	Rev X, 21-03-18	Retain	Retained	
		80292	Backhousia citriodora	Lemon myrtle	4.5	2.5	70		Retain	Retained	
		80293	Backhousia citriodora	Lemon myrtle	4	1.5	50		Retain	Retained	
		80294	Backhousia citriodora	Lemon myrtle	4.5	2	70		Retain	Retained	
		80295	Backhousia citriodora	Lemon myrtle	4	2.5	80		Retain	Retained	
		80296	Backhousia citriodora	Lemon myrtle	4	2.5	70		Retain	Retained	
		80297	Backhousia citriodora	Lemon myrtle	5	2.5	90		Retain	Retained	
		80298	Backhousia citriodora	Lemon myrtle	5	3	85		Retain	Retained	
		80299	Backhousia citriodora	Lemon myrtle	5.5	3	100		Retain	Retained	
		80300	Cinnamomum camphora	Camphor laurel	17	16	590 580 610		Retain	Retained	
		80301	Schefflera actinophylla	Umbrella tree	12	6	150 200 200		Retain	Retained	

Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification
		80302	Ailanthus altissima	Tree of heaven	17	14	385		Retain	Retained	
		80303	Syzygium paniculatum	Magenta lilly pilli	7.5	6	270		Retain	Retained	
		80304	Syzygium paniculatum	Magenta lilly pilli	7	5	230		Retain	Retained	
		80305	Syzygium paniculatum	Magenta lilly pilli	7	6	230		Retain	Retained	
		80306	Frazinus griffithii	Evergreen ash	4	5	75 80 110		Retain	Retained	
		80307	Corymbia citriodora	Lemon scented gum	12	10	340		Retain	Retained	
		80308	Araucaria heterophylla	Norfolk Is. Pine	4.5	4	110		Retain	Retained	
		80309	Melaleuca styphelioides	Prickly-leaved paper bark	5	8	310		Retain	Retained	
		80310	Melaleuca styphelioides	Prickly-leaved paper bark	5	9	220 260		Retain	Retained	
		80311	Melaleuca styphelioides	Prickly-leaved paper bark	5	8	150 170 195		Retain	Retained	
		80312	Populus nigra 'Italica'	Lombardy poplar	20	3	700		Retain	Retained	
		80313	Populus nigra 'Italica'	Lombardy poplar	20	3	750		Retain	Retained	
		80314	Populus nigra 'Italica'	Lombardy poplar	15	5	600		Retain	Retained	
		80315	Populus nigra 'Italica'	Lombardy poplar	10	4	500		Retain	Retained	
		80316	Casurina cunninghamianii	River oak	15	11	600		Retain	Retained	
		80317	Casurina cunninghamianii	River oak	15.5	12	660		Retain	Retained	
		80318	Populus nigra 'Italica'	Lombardy poplar	10	5	530		Retain	Retained	
		80319	Sapium sebiferum	Chinese tallow tree	8	8	350 310		Retain	Retained	
		80320	Backhousia citriodora	Lemon myrtle	3	1.5	75		Retain	Retained	
		80321	Pyrus calleryana	Callery pear	6.5	6	155 240		Retain	Retained	
		80322	Koelreuteria paniculata	Golden rain tree	3	1.5	45 45		Retain	Retained	
		80323	Tristanopsis laurina	Water gum	3.5	3	100		Retain	Retained	
		80324	Koelreuteria paniculata	Golden rain tree	6.5	6	170		Retain	Retained	
		80325	Koelreuteria paniculata	Golden rain tree	6.5	7	205		Retain	Retained	
		80326	Pyrus calleryana	Callery pear	7	8	235		Retain	Retained	
		80327	Koelreuteria paniculata	Golden rain tree	4.5	4	150		Retain	Retained	
		Edgeware/ Lord/ Council/ May Streets	Inner West Council	80328	Fraxinus griffithii	Evergreen ash	55.5		5	90 90 110 120	Rev X, 21-03-18
80329	Fraxinus griffithii			Evergreen ash	5.5	4	50 65 80 80	Retain	Retained		
80330	Fraxinus griffithii			Evergreen ash	4	3	50 70 80	Retain	Retained		
80331	Fraxinus griffithii			Evergreen ash	3.5	2.5	50 50	Retain	Retained		
80332	Fraxinus 'Raywood'			Claret ash	5	4.5	90 120	Retain	Retained		
80333	Fraxinus 'Raywood'			Claret ash	8	8	210	Retain	Retained		
80334	Fraxinus 'Raywood'			Claret ash	8	8	230	Retain	Retained		
80335	Fraxinus 'Raywood'			Claret ash	6.5	7	220	Retain	Retained		
80336	Fraxinus 'Raywood'			Claret ash	7.5	8	270	Retain	Retained		

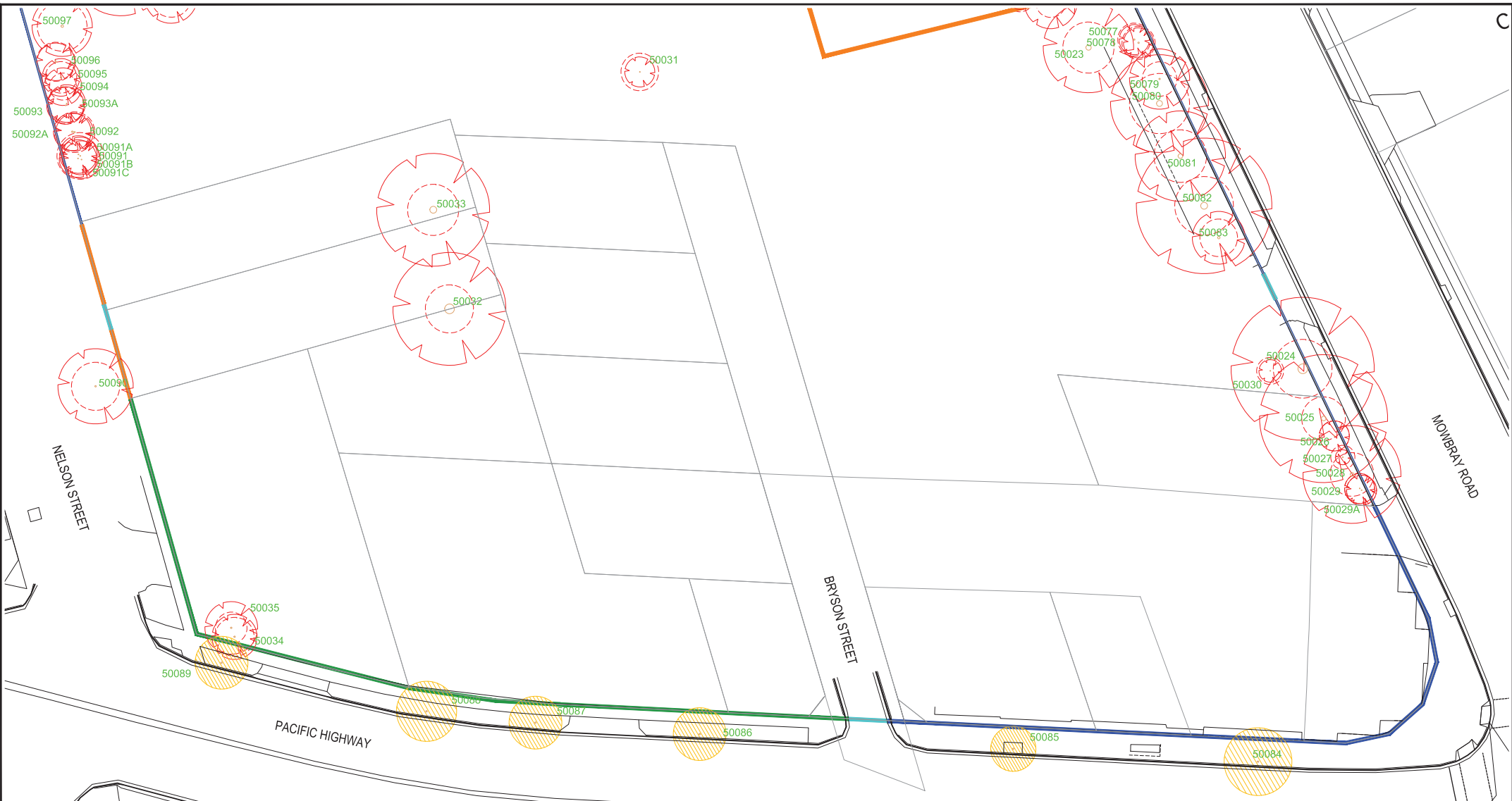
Tree Study Area (Street address)	Council	Tree Number	Botanical Name	Common Name	Height (m)	Spread (m)	DCH (mm)	Report Name and Date	Approved Status	Impact	Justification	
		80337	Fraxinus 'Raywood'	Claret ash	7	5	255		Retain	Retained		
		80338	Fraxinus 'Raywood'	Claret ash	7	8	210 130		Retain	Retained		
		80339	Fraxinus griffithii	Evergreen ash	4	3	50		Retain	Retained		
		80340	Fraxinus griffithii	Evergreen ash	4	2.5	50		Retain	Retained		
		80341	Fraxinus griffithii	Evergreen ash	2	1	45		Retain	Retained		
		80342	Fraxinus griffithii	Evergreen ash	2	1	50		Retain	Retained		
Murray Street and Edinburgh Road	Inner West Council	1	Eucalyptus Microcorys	Tallowwood	5	3	90	Rev 11, 03-04-20	Remove	Removed	This tree had previously not been captured as it did not meet the classification requirements of a tree under the CoA. Tree number 1 is required to be removed to enable the relocation of the existing culvert along Murray Street and a new culvert system to be constructed, to meet the requirements of the flood modelling design for the project and to enable the safe operation of the precast yard operations and haul road.	
Edinburgh Road		2	<i>Elaeocarpus Reticulatus</i>	Blueberry Ash	8	4	200		Prune	Prune	Trees numbered 2 to 10 are required to be pruned to enable the safe implementation of traffic controls and prevent any obstruction during Local Area Works along Edinburgh Road.	
		3	<i>Elaeocarpus Reticulatus</i>	Blueberry Ash	8	5	180		Prune	Prune		
		4	<i>Elaeocarpus Reticulatus</i>	Blueberry Ash	8	4	190		Prune	Prune		
		5	<i>Livistona Australis</i>	Cabbage Palm	11	4	400		Prune	Prune		
		6	<i>Livistona Australis</i>	Cabbage Palm	7	5	420		Prune	Prune		
		7	<i>Corymbia Maculata</i>	Spotted Gum	9	2	100		Prune	Prune		
		8	<i>Pistacia Chinensis</i>	Chinese Pistachio	5	6	300		Prune	Prune		
		9	Lophostemon Confertus	Brush Box	6	3	180		Remove	Removed		Tree number 9 is required to be removed to enable the road crossing for the Ausgrid trench to be constructed, which currently runs through the existing tree.
		10	Lophostemon Confertus	Brush Box	14	17	1100		Prune	Prune		Trees numbered 2 to 10 are required to be pruned to enable the safe implementation of traffic controls and prevent any obstruction during Local Area Works along Edinburgh Road.

Appendix A - Chatswood

- Appendix A1 – Tree Impact Assessment Plan (Chatswood Non-Rail Corridor Site)
- Appendix A2 - Arborist Tree Survey Report(s) (Chatswood Non-Rail Corridor Site)
- Appendix A3 – Site Survey Drawings(s) (Chatswood Non-Rail Corridor Site)
- Appendix A4 – Arborist Tree Survey Report (FCW)
- Appendix A5 – Arborist Report (79 Hampden Road)

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100mm AT FULL SIZE Plot Date: 29/11/17 - 15:34



PLAN
SCALE 1:250

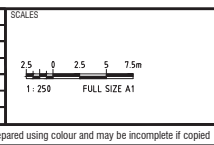
LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	A CLASS HOARDING		EXISTING TREE TO BE RETAINED
	B CLASS HOARDING		EXISTING TREE TO BE REMOVED
	VEHICULAR ACCESS GATE		EXISTING TREE TO BE PRUNED
	SHADE CLOTH TO ATF FENCE		TREE PROTECTION ZONE
	SHADE CLOTH TO EXISTING FENCE		STRUCTURAL ROOT ZONE

NOTE:

- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR; ARBORIST TREE SURVEY INFORMATION; AND TREE SURVEY LOCATION INFORMATION.
- ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

REV.	BY	DATE	DESCRIPTION	APPD.
C	EW	29/11/2017	ISSUED FOR INFORMATION	MW
B	JS	05/10/2017	ISSUED FOR INFORMATION	AC
A	JP	16/06/2017	ISSUED FOR INFORMATION	AC



Plot Date: 29/11/17 - 15:34

NOTE: Do not scale from this drawing.



CLIENT: CHATSWOOD URBAN DESIGN TREE IMPACT ASSESSMENT PLAN SHEET 1

DESIGNED: JOHN PARGETER

DRG CHECK: ANTHONY CHARLESWORTH

DESIGN CHECK: ANTHONY CHARLESWORTH

APPROVED: ANTHONY CHARLESWORTH

FOR INFORMATION ONLY

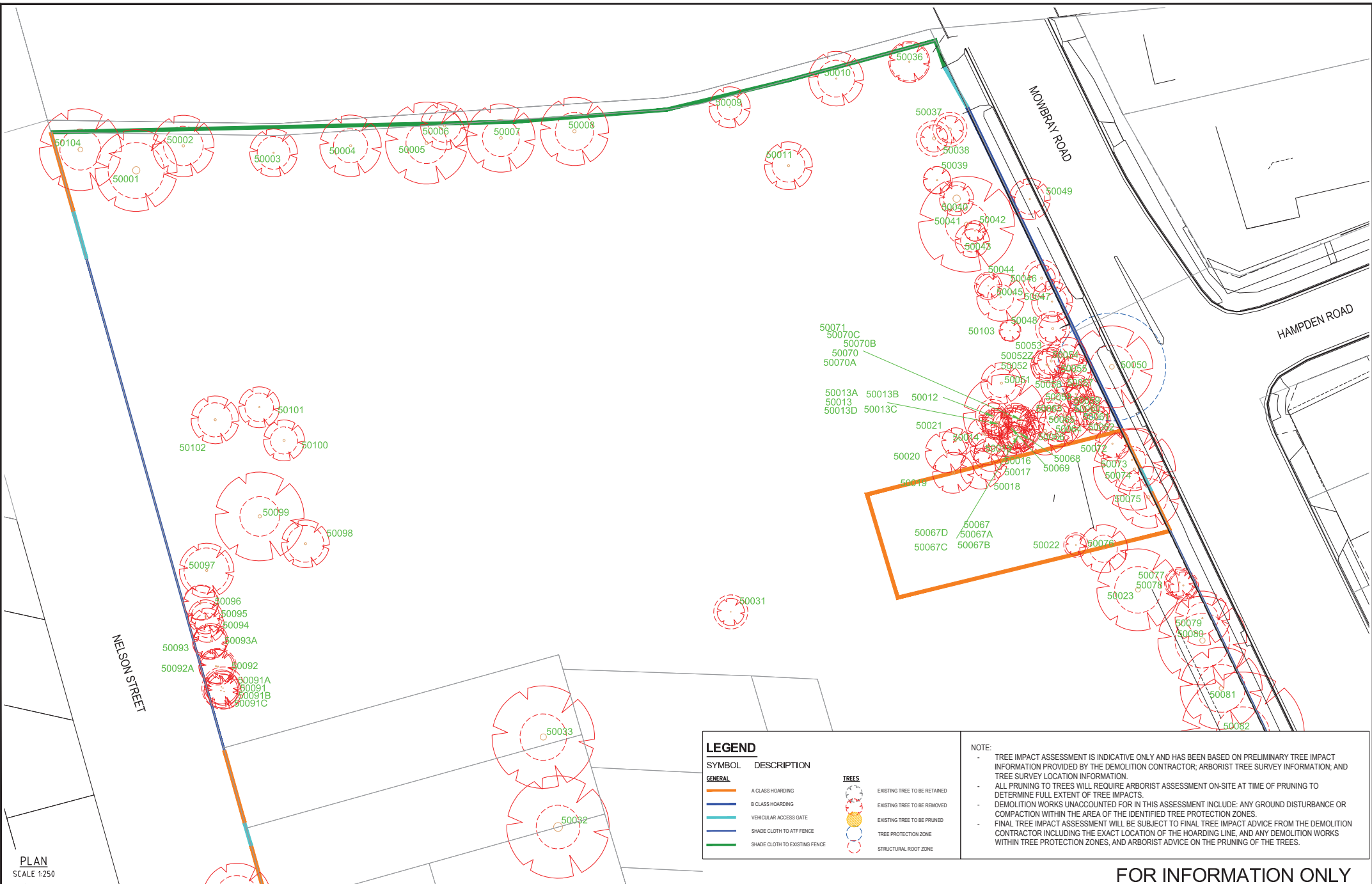
SYDNEY METRO CITY & SOUTHWEST

CHATSWOOD URBAN DESIGN TREE IMPACT ASSESSMENT PLAN SHEET 1

STATUS: FOR INFORMATION ONLY SHEET 1 OF 2

NRWL Dig No: NRWLSRT-PBA-SCH-UD-DWG-830222

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PLAN
SCALE 1:250

LEGEND

SYMBOL	DESCRIPTION
GENERAL	
[Orange line]	A CLASS HOARDING
[Blue line]	B CLASS HOARDING
[Blue line with gap]	VEHICULAR ACCESS GATE
[Blue line with dots]	SHADE CLOTH TO ATF FENCE
[Green line]	SHADE CLOTH TO EXISTING FENCE
TREES	
[Red dashed circle]	EXISTING TREE TO BE RETAINED
[Red solid circle]	EXISTING TREE TO BE REMOVED
[Yellow solid circle]	EXISTING TREE TO BE PRUNED
[Blue dashed circle]	TREE PROTECTION ZONE
[Red dashed circle with dot]	STRUCTURAL ROOT ZONE

NOTE:

- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR; ARBORIST TREE SURVEY INFORMATION; AND TREE SURVEY LOCATION INFORMATION.
- ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

REV.	BY	DATE	DESCRIPTION	APPD.
C	EW	29/11/2017	ISSUED FOR INFORMATION	MW
B	JS	05/10/2017	ISSUED FOR INFORMATION	AC
A	JP	16/06/2017	ISSUED FOR INFORMATION	AC

SCALES

1:250 FULL SIZE A1

Plot Date: 29/11/17 - 15:34

NOTE: Do not scale from this drawing.

CLIENT

Transport for NSW

SERVICE PROVIDERS

PARSONS BRINCKERHOFF
AECOM
COX HASSELL

DESIGNED BY: JOHN PARGETER
DRG CHECK: ANTHONY CHARLESWORTH
DESIGN CHECK: ANTHONY CHARLESWORTH
APPROVED: ANTHONY CHARLESWORTH

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST

CHATSWOOD
URBAN DESIGN
TREE IMPACT ASSESSMENT PLAN
SHEET 2

STATUS: FOR INFORMATION ONLY SHEET 2 OF 2

NWRL Obj No: NWRLSRT-PBA-SCH-UD-DWG-830223

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1	Lophostemon confertus <i>Brushbox</i>	M	13	12	996	1689	12	4.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth, no visible evidence of pests or disease	2a
						Area m2	452	53			
2	Lophostemon confertus <i>Brushbox</i>	M	10.5	9	370	750	4.4	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, no visible evidence of pests or disease	2a
						Area m2	61	26			
3	Lophostemon confertus <i>Brushbox</i>	M	9	7	210	480	3.7	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back, no visible evidence of pests or disease, structure & form modified by past pruning	2a
					226	Area m2	43	18			
4	Lophostemon confertus <i>Brushbox</i>	M	9	9	298	530	3.6	2.5	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, no visible evidence of pests or disease, extensive exposed surface roots	2e
						Area m2	41	20			
5	Lophostemon confertus <i>Brushbox</i>	M	10	12	442	768	5.3	3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, no visible evidence of pests or disease, exposed surface roots.	2e
						Area m2	88	28			
6	Eucalyptus punctata <i>Grey gum</i>	M	13	7	295	447	3.5	2.4	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, small branch and twig die back, suppressed, thinning crown, no visible evidence of pests or disease, poor structure and form.	3a
						Area m2	38	18			
7	Lophostemon confertus <i>Brushbox</i>	M	7.5	10	344	600	4.1	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, no visible evidence of pests or disease	2a
						Area m2	53	23			
8	Lophostemon confertus <i>Brushbox</i>	M	8	10	480	700	5.8	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, trunk wound compartmentalised	2a
						Area m2	106	25			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
9	Callistemon viminalis	M	3.5	6	100	240	1.8	1.8	2	Evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, co-dominant stems, strong union, no visible evidence of pests or disease, structure & form modified by past pruning		3a
	<i>Weeping bottlebrush</i>					117	Area m2	10				
10	Callistemon viminalis	M	6.5	8	3x160	633	5.5	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, no visible evidence of pests or disease		2a
	<i>Weeping bottlebrush</i>					230	Area m2	95				
					280							
11	Callistemon salignus	M	7	6.5	160	445	3.2	2.4	2	Evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, thinning crown, structure & form modified by past pruning, sooty mould infestation on foliage.		3e
	<i>Willow bottlebrush</i>					215	Area m2	32				
12	Syagrus romanzoffiana	M	10	4	249	510	3	2.5	2	Palm species introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed, undesirable species.		2
	<i>Cocos palm</i>						Area m2	28				
13	Syagrus romanzoffiana	M	7	4	125	880	4.6	3.1	2	Palm species introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed, undesirable species		2
	<i>Cocos palm</i>					2x165	Area m2	66				
					2x200							
14	Syagrus romanzoffiana	M	11	4.5	248	560	3	2.6	2	Palm species introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed, undesirable species		2
	<i>Cocos palm</i>						Area m2	28				
15	Syagrus romanzoffiana	M	8	5	284	530	3.4	2.5	2	Palm species introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed, undesirable species		2
	<i>Cocos palm</i>						Area m2	36				
16	Syagrus romanzoffiana	M	8	5	525	545	6.3	2.6	2	Palm species introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed, undesirable species		2
	<i>Cocos palm</i>						Area m2	125				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
17	Archontophoenix alexandrae <i>Alexander palm</i>	M	7	5	232	407	2.8	2.3	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease		2a
						Area m2	25	17				
18	Archontophoenix alexandrae <i>Alexander palm</i>	M	11	5.5	205	474	2.5	2.4	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease		2a
						Area m2	20	18				
19	Phoenix canariensis <i>Canary Island date palm</i>	M	8	5.5	392	660	4.7	2.8	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, undesirable species, planted very close to adjoining building.		2c
						Area m2	69	25				
20	Callistemon viminalis <i>Weeping bottlebrush</i>	M	7	6	123	487	3.5	2.4	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, no visible evidence of pests or disease		2a
					140	Area m2	38	18				
					220							
21	Syagrus romanzoffiana <i>Cocos palm</i>	M	7	4	202	410	2.4	2.3	2	Palm species introduced to the site, fair to average condition, small branch and twig die back, undesirable species		3c
						Area m2	18	17				
22	Howea forsteriana <i>Kentia palm</i>	M	5.5	3	131	232	1.6	1.8	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease		2a
						Area m2	8	10				
23	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	14	12	399	1040	9.9	3.4	2	Evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, thinning crown, no visible evidence of pests or disease		3a
					720	Area m2	308	36				
24	Eucalyptus deanei <i>Mountain blue gum</i>	M	27.6	18	1340	1451	15	3.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, minor storm damage, no visible evidence of pests or disease, roots invading adjoining footpath, resulting dangerous trip hazard.		2a
						Area m2	707	48				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
25	Corymbia gummifera <i>Red blood wood</i>	M	18	17	590	715	7.1	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, no visible evidence of pests or disease	2a
						Area m2	158	26			
26	Ceratopetalum gummiferum <i>NSW Christmas bush</i>	M	5	4	80	292	2	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, no visible evidence of pests or disease	2a
					90	Area m2	13	13			
					110						
27	Ceratopetalum gummiferum <i>NSW Christmas bush</i>	M	4	2	116	188	1.4	1.6	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease	2a
						Area m2	6	8			
28	Corymbia citriodora <i>Lemon scented gum</i>	M	16	13	522	715	6.3	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, no visible evidence of pests or disease	2a
						Area m2	125	26			
29	Omalanthus populifolius <i>Native bleeding heart</i>	M	4.5	4	118	306	2	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, no visible evidence of pests or disease	2a
					123	Area m2	13	13			
30	Ceratopetalum gummiferum <i>NSW Christmas bush</i>	M	4.5	2.5	145	240	1.7	1.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, no visible evidence of pests or disease	2a
						Area m2	9	10			
31	Camellia japonica <i>Camellia</i>	M	4	4	Multi stem	500	3	2.5	2	Small evergreen tree/tall shrub introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, no visible evidence of pests or disease	2a
						Area m2	28	20			
32	Ulmus procera <i>English elm</i>	M	15.5	15	1280	1500	15	3.9	2	Deciduous tree introduced to the site, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth, storm damage	2a
						Area m2	707	48			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
33	Ulmus procera <i>English elm</i>	M	13.8	15	880	1065	10.6	3.4	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth	2a
						Area m2	353	36			
34	Cinnamomum camphora <i>Camphor laurel</i>	SM	6.5	6.5	Multi stem	540	5	2.6	3	Evergreen tree introduced to the site, fait to average condition, the species is not rare or endangered, co-dominant stems, strong union, undesirable species	2c
						Area m2	79	21			
35	Eucalyptus microcorys <i>Tallow wood</i>	M	10	7	214	355	2.6	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, no visible evidence of pests or disease	2a
						Area m2	21	14			
36	Chamaecyparis obtusa cv. <i>Crippsii - Golden cypress</i>	M	8	6	2x205	650	5.1	2.8	2	Conifer species introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, no visible evidence of pests or disease	2a
					2x220	Area m2	82	25			
37	Cupressus torulosa <i>Bhutan cypress</i>	M	16	4	428	510	5.1	2.5	2	Conifer species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back south elevation	2a
						Area m2	82	20			
38	Cupressus torulosa <i>Bhutan cypress</i>	M	16.5	4	485	585	5.8	2.6	2	Conifer species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back north elevation	2a
						Area m2	106	21			
39	Callistemon salignus <i>Willow bottlebrush</i>	M	8	4	212	290	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease	2a
						Area m2	20	13			
40	Pittosporum undulatum <i>Native daphne</i>	M	6.5	5	133	277	1.6	1.9	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	8	11			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
41	Quercus robur <i>English oak</i>	M	11	14	620	880	7.4	3.1	2	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, storm damage	3a
						Area m2	172	30			
42	Pittosporum undulatum <i>Native daphne</i>	SM	4	3	87	147	1	1.5	2	Evergreen tree indigenous to the locality, average condition, the species is not rare or endangered, small branch and twig die back, suppressed	3a
						Area m2	3	7			
43	Pittosporum undulatum <i>Native daphne</i>	M	6.5	5	130	205	1.6	1.7	2	Evergreen tree indigenous to the locality, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back	2a
						Area m2	8	9			
44	Camellia japonica <i>Camellia</i>	M	6	4	50	208	1.6	1.7	2	Small evergreen tree/tall shrub introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, co-dominant stems, strong union no visible evidence of pests or disease	2a
					3X70	Area m2	8	9			
45	Pittosporum undulatum <i>Native daphne</i>	M	7.5	7	178	267	2.1	1.9	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, small branch and twig die back, thinning crown	2e
						Area m2	14	11			
46	Washingtonia robusta <i>Mexican fan palm</i>	M	5.5	4	284	620	3.4	2.7	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	36	23			
47	Pittosporum undulatum <i>Native daphne</i>	M	6	6	233	365	2.8	2.2	2	Evergreen tree indigenous to the locality, fair condition, the species is not rare or endangered, small branch and twig die back, structure & form modified by past pruning, thinning crown	3a
						Area m2	25	15			
48	Washingtonia robusta <i>Mexican fan palm</i>	SM	5	4	305	510	3.7	2.5	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	43	20			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
49	Lophostemon confertus <i>Brushbox</i>	M	8.5	6	195	360	2.3	2.2	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease	2a
						Area m2	17	15			
50	Casuarina cunninghamiana <i>River she oak</i>	M	18	12	655	940	7.9	3.2	2	Street tree, evergreen native tree introduced to the site, good condition, fair condition, the species is not rare or endangered, canopy dieback and hazardous deadwood, small branch and twig die back, trunk wound compartmentalised.	2a
						Area m2	196	32			
51	Washingtonia robusta <i>Mexican fan palm</i>	M	8	6	300	715	3.6	2.9	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	41	26			
52	Washingtonia robusta <i>Mexican fan palm</i>	SM	3	4	230	420	2.8	2.3	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	25	17			
53	Washingtonia robusta <i>Mexican fan palm</i>	SM	3	3.5	270	503	3.2	2.5	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	32	20			
54	Acer negundo <i>Box elder</i>	M	6.5	6	162	265	1.9	1.9	4	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, invasive species	2a
						Area m2	11	11			
55	Washingtonia robusta <i>Mexican fan palm</i>	M	18	5	355	365	4.3	2.2	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, requires pruning..56	2a
						Area m2	58	15			
56	Camellia japonica <i>Camellia</i>	M	5.5	3	60	167	1.4	1.6	2	Small evergreen tree/tall shrub introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, no visible evidence of pests or disease	2a
					2x70	Area m2	6	8			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
57	Howea forsteriana <i>Kentia palm</i>	M	7	4	155	200	1.9	1.7	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease	2a
						Area m2	11	9			
58	Phoenix reclinata <i>Senegal date palm</i>	M	5.5	3	188	190	2.3	1.6	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease	2a
						Area m2	17	8			
59	Howea forsteriana <i>Kentia palm</i>	M	9	4	152	270	1.8	1.9	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, crown suppressed	2e
						Area m2	10	11			
60	Syagrus romanzoffiana <i>Cocos palm</i>	M	5.5	4	147	360	1.8	2.2	3	Palm species introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, crown suppressed, undesirable species.	3a
						Area m2	10	15			
61	Acer negundo <i>Box elder</i>	M	7	5	135	250	1.6	1.8	4	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed north elevation, invasive species.	2c
						Area m2	8	10			
62	Acer negundo <i>Box elder</i>	M	4	3.5	85	160	1	1.5	4	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, suppressed, invasive species	2c
						Area m2	3	7			
63	Castanospermum australe <i>Black bean</i>	M	10	8	107	650	5.1	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, no visible evidence of pests or disease	2a
					410	Area m2	82	25			
64	Michelia figo <i>Portwine magnolia</i>	M	5	6	90	440	3	2.3	3	Small evergreen tree/tall shrub introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, no visible evidence of pests or disease	3a
					117	Area m2	28	17			
					2x140						

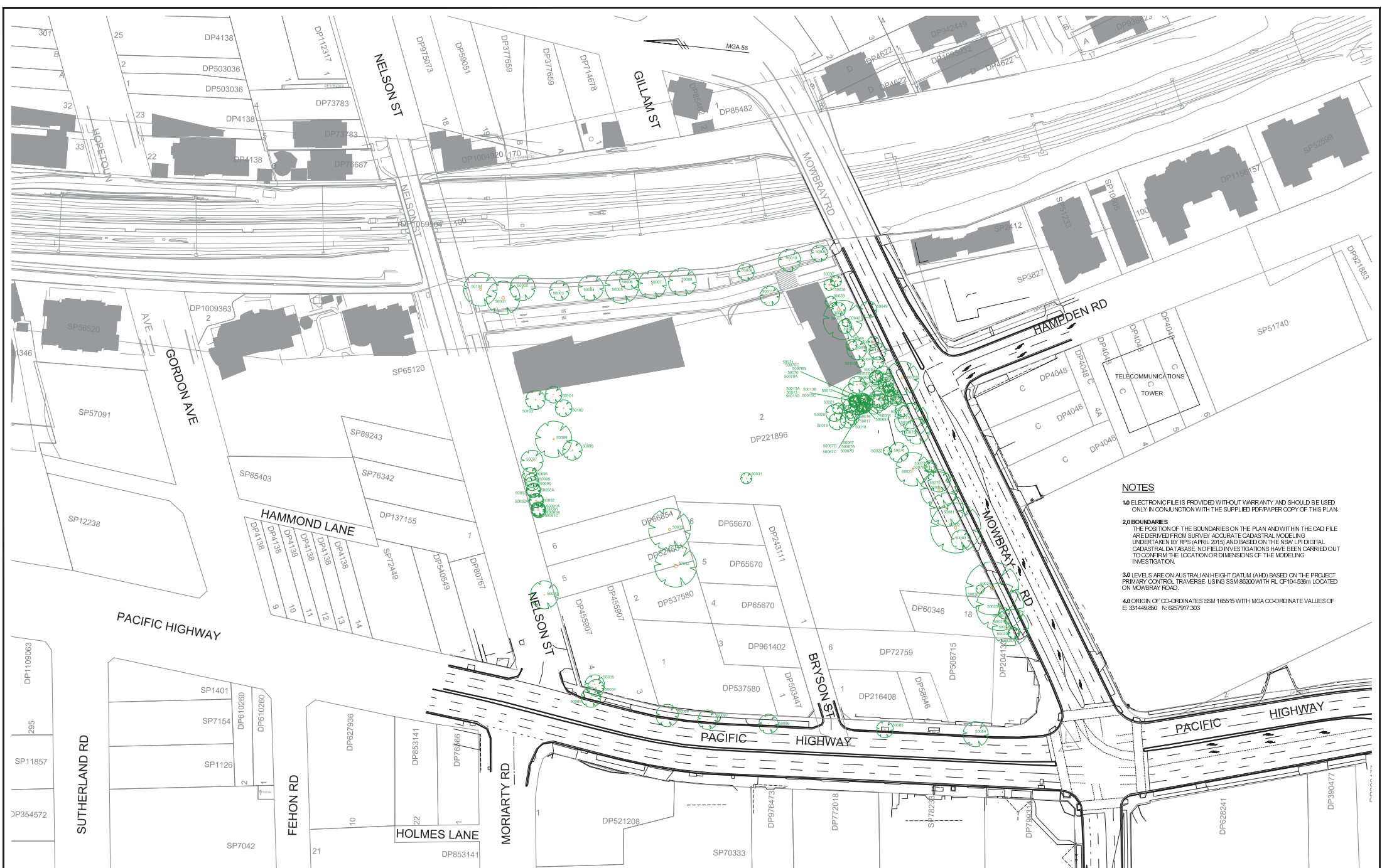
Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
65	Syagrus romanzoffiana	M	14	6	323	453	3.9	2.4	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, undesirable species	2c
	<i>Cocos palm</i>					Area m2	48	18			
66	Stenocarpus sinuatus	M	15	7	350	800	7.6	3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, storm damage, structure & form modified by past pruning. Tree provides little site amenity.	2a
	<i>Fire wheel tree</i>					Area m2	181	28			
67	Archontophoenix alexandrae	M	12	4	3x200	1600	5.3	4	2	Palm species introduced to the site, good condition, the species is not rare or endangered,co -dominant stems, strong union, frond die back , suppressed	2a
	<i>Alexander palm</i>					Area m2	88	50			
68	Archontophoenix alexandrae	M	11	6	207	330	2.5	2.1	2	Palm species introduced to the site, fair condition, the species is not rare or endangered, frond die back, suppressed	2a
	<i>Alexander palm</i>					Area m2	20	14			
69	Archontophoenix alexandrae	M	12	5.5	318	550	3.8	2.6	2	Palm species introduced to the site, fair condition, the species is not rare or endangered, frond die back , suppressed	2a
	<i>Alexander palm</i>					Area m2	45	21			
70	Archontophoenix alexandrae	M	11	4	165	1050	4.9	3.4	2	Palm species introduced to the site, fair condition, the species is not rare or endangered,co-dominant stems, strong union, frond die back, suppressed	2a
	<i>Alexander palm</i>					Area m2	75	36			
71	Melia azedarach	M	12	12	430	595	5.2	2.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, small branch and twig die back, open sprawling crown.	2a
	<i>White cedar</i>					Area m2	85	23			
72	Camellia sasanqua	M	6	5	122	308	2.4	2	2	Small evergreen tree/tall shrub introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, thinning crown, invasive species	3a
	<i>Sasanqua</i>					Area m2	18	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE			
73	Acer negundo	M	6	9	240	295	2.9	2	4	Deciduous tree introduced to the site, fair condition, small branch and twig die back, suppressed, undesirable species	2c			
	<i>Box elder</i>											Area m2	26	13
74	Acer negundo	M	8	12	234	700	5.3	2.8	4	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, undesirable species, invasive species	2c			
	<i>Box elder</i>				250							Area m2	88	25
					282									
75	Acer negundo	M	8.5	9	450	660	5.4	2.8	4	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, tree has excessive lean to southwest	3c			
	<i>Box elder</i>											Area m2	92	25
76	Melia azedarach	M	8	7	197	310	2.4	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease	2a			
	<i>White cedar</i>											Area m2	18	13
77	Liquidambar styraciflua	M	13	4	212	393	2.5	2.2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease	2a			
	<i>Sweet gum</i>											Area m2	20	15
78	Lagerstroemia indica	OM	6	4	115	364	2.9	2.2	3	Deciduous tree introduced to the site, poor condition, the species is not rare or endangered, structure and form typical of the species, co-dominant stems, strong union, tree stressed, decline in vigour	4b			
	<i>Crepe Myrtle</i>				140							Area m2	26	15
					155									
79	Ilex aquifolium	M	5	7.5	185	410	3.2	2.3	3	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, no visible evidence of pests or disease	2c			
	<i>European Holly</i>				192							Area m2	32	17
80	Liquidambar styraciflua	M	19	13	835	1540	10	4	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of thre species, minor small branch and twig die back, modified by past pruning	2a			
	<i>Sweet gum</i>				Area m2							314	50	

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
81	Liquidambar styraciflua <i>Sweet gum</i>	M	16.8	12	640	1160	7.7	3.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	186	38			
82	Liquidambar styraciflua <i>Sweet gum</i>	M	18	17.5	880	1450	10.6	3.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form typical of the species, modified by past pruning	2a
						Area m2	353	48			
83	Magnolia grandiflora <i>Bull Bay magnolia</i>	M	5	7	97	500	3.9	2.5	2	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, no visible evidence of pests or disease	2a
					132	Area m2	48	20			
					280						
84	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	5.5	9	2x185	347	4	2.1	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
					210	Ar m2	50	14			
85	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	4.6	6	205	285	2.5	2	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2a
						A m2	20	13			
86	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	4.5	6.5	146	428	2.8	2.3	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, extensive exposed surface roots, aerial cables above/through crown	2a
					180	A m2	25	17			
87	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	4.6	7.2	240	470	2.9	2.4	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, extensive exposed surface roots, aerial cables above/through crown	2a
						A m2	26	18			
88	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	4.5	7.5	214	340	2.6	2.1	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, co-dominant stems, strong union, extensive exposed surface roots, aerial cables above/through crown	2a
						A m2	21	14			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
89	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	6	7	166	335	2	2.1	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, extensive exposed surface roots	2a
						Area m2	13	14			
90	Lagerstroemia indica <i>Crepe Myrtle</i>	M	69.5	10	Multi stem	900	5	3.2	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back	2a
						A m2	79	32			
91	Callistemon viminalis <i>Weeping bottlebrush</i>	M	8	5	3x110	850	3.8	3.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed south east elevation, aerial cables above	2a
					2x140	Area m2	45	30			
					164						
92	Callistemon viminalis <i>Weeping bottlebrush</i>	M	8	5	2x100	600	1.7	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed south east elevation, aerial cables above	2a
					2x10	Area m2	9	23			
93	Callistemon viminalis <i>Weeping bottlebrush</i>	M	6	5	3x80	450	1.9	2.4	2	Evergreen native tree introduced to the site, average condition, co-dominant stems, strong union. Small branch and twig die back, suppressed south east elevation, structure & form modified by past pruning, aerial cables above.	2a
					2x50	Ar m2	11	18			
94	Callistemon viminalis <i>Weeping bottlebrush</i>	M	4.5	5	57	250	1.2	1.8	2	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, suppressed south east elevation, aerial cables above	2a
					86	Ar m2	5	10			
95	Callistemon viminalis <i>Weeping bottlebrush</i>	M	8	5	137	330	2.6	2.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed south east elevation, aerial cables above.	2a
					164	A m2	21	14			
96	Callistemon viminalis <i>Weeping bottlebrush</i>	M	8	5	90	580	3.6	2.6	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, suppressed south east elevation, aerial cables above.	2a
					190	Ar m2	41	21			
					210						

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE			
97	Chamaecyparis obtusa cv.	M	10.5	8	2x100	960	6.7	3.3	2	Conifer species introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, small branch and twig die back, suppressed west elevation. Tree has poor form.	2e			
	<i>Crippsii - Golden cypress</i>				5x200							Ar m2	141	34
					300									
98	Chamaecyparis obtusa cv.	M	12	7	3x120	610	7.8	2.7	2	Conifer species introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, small branch and twig die back, suppressed west elevation, tree has poor form.	2e			
	<i>Crippsii - Golden cypress</i>				250							Ar m2	191	23
					3x325									
99	Cedrus atlantica	M	13	13	498	745	6	2.9	2	Conifer species introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, thinning crown, storm damage, modified by past pruning.	2c			
	<i>Atlantic cedar</i>											A m2	113	26
100	Chamaecyparis obtusa cv.	M	11.5	6	254	315	3	2	2	Conifer species introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed south elevation, modified by past pruning	2e			
	<i>Crippsii - Golden cypress</i>											A m2	28	13
101	Chamaecyparis obtusa cv.	M	11.5	5	207	350	3.6	2.1	2	Conifer species introduced to the site, fair to average condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed south elevation, modified by past pruning.	2e			
	<i>Crippsii - Golden cypress</i>				218							Ar m2	41	14
102	Chamaecyparis obtusa cv.	M	11	7	86	517	5	2.5	2	Conifer species introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed south east elevation, modified by past pruning	2e			
	<i>Crippsii - Golden cypress</i>				2x140							Area m2	79	20
					2x250									
103	Elaeocarpus reticulatus	M	8	3	80	165	1	1.6	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease	2a			
	<i>Blueberry ash</i>											A m2	3	8
104	Lophostemon confertus	M	9	12	707	810	8.5	3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, no visible evidence of pests or disease.	2a			
	<i>Brushbox</i>											A m2	227	28



- NOTES**
- 1.0 ELECTRONIC FILE IS PROVIDED WITHOUT WARRANTY AND SHOULD BE USED ONLY IN CONJUNCTION WITH THE SUPPLIED PAPER COPY OF THIS PLAN.
 - 2.0 BOUNDARIES
THE POSITION OF THE BOUNDARIES ON THE PLAN AND WITHIN THE CAD FILE ARE DERIVED FROM SURVEY ACCURATE CADASTRAL MODELING UNDERTAKEN BY RPS (APRIL 2015) AND BASED ON THE NSW LPI DIGITAL CADASTRAL DATABASE. NO FIELD INVESTIGATIONS HAVE BEEN CARRIED OUT TO CONFIRM THE LOCATION OR DIMENSIONS OF THE MODELING INVESTIGATION.
 - 3.0 LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD) BASED ON THE PROJECT PRIMARY CONTROL TRAVERSE USING SSM 86200 WITH RL CP104-330m LOCATED ON MOWBRAY ROAD.
 - 4.0 ORIGIN OF CO-ORDINATES SSM 165515 WITH MGA CO-ORDINATE VALUES OF E: 591446.850 N: 6267917.303

REVISION	DATE	REVISION DETAILS	DRAWN	CHK	APP
A	17.05.2017	INITIAL VERSION	JMU	MGL	SFG

HORIZ. SCALE	VERT. SCALE
1:600 @A1	N/A
COORDINATES: MGA SSM165515	DATUM: AHD SSM8200

CLIENT	TITLE
NSW Transport for NSW	SYDNEY METRO CITY AND SOUTH WEST Tree Survey - Chatswood Worksite
PROJECT NO: PR124856	JOB NO: A
DRAWN: JMU	DATE OF PLAN: 17.05.2017
CHECKED: MGL	DATE LAST SAVED: 17.05.2017
APPROVED: SFG	DATE APPROVED: 17.05.2017
DRAWING NO: NWRLSRT-RPS-CW-SR-DWG-00001.dwg	SHEET 1 OF 1 SHEETS

Tree & Vegetation report

**Sydney Metro
Chatswood site**

Prepared by:
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Registered Landscape Architect
Horticulturist/Consultant Arborist
September 2017

Introduction

This Tree and Vegetation Report was prepared at the request of Transport NSW *Sydney Metro – City & Southwest* to visit the subject site and prepare a visual assessment of the existing tree species and other vegetation growing within the rail corridor from Artarmon to Chatswood train stations.

Plans referred to in the preparation of this tree report include:

- Estimated tree count Chatswood Dive Site 246.

Stuart Pittendrigh conducted the site assessment on 27 September 2017

The site



Aims

The aims of this report are to:

- Identify the subject trees and vegetation within the areas highlighted on the aerial image provided.

Methodology

The tree / vegetation identification in this report is based on observations and findings from the specific site locations listed in this report.

The tree species were identified from ground observation using standard methods of visual assessment criteria. Field glasses were used as necessary in the identification of the vegetation.

Tree - Vegetation sites.

Western vegetated slope looking **north** from the Mowbray Road Bridge towards the Nelson St. Bridge.

- *Acacia binerva*
- *Acacia decurrens*
- *Acacia elata*
- *Lophostemon confertus* and
- *Callistemon* spp.

Eastern vegetated slope looking **north** from the Mowbray Road Bridge towards the Nelson St. Bridge.

- *Cinnamomum camphora*
- *Eucalyptus* species
- *Casuarina* spp.
- *Pittosporum undulatum*
-

Western vegetated slope looking **south** from the Nelson St Bridge St towards the Mowbray Rd. Bridge.

- *Acacia* spp.
- *Ligustrum lucidum*
- *Callistemon* spp.
- *Cinnamomum camphora*
- *Lophostemon confertus*

Eastern vegetated slope looking **south** from the Nelson St. Bridge towards the Mowbray Rd. Bridge.

- *Cinnamomum camphora*
- *Eucalyptus* species
- *Casuarina* spp.
- *Pittosporum undulatum*

Eastern vegetated slope looking **south** from the Mowbray Rd. Bridge and pedestrian access path to the east running parallel to rail corridor from Raleigh St to Artarmon Station.

- *Lophostemon confertus*
- *Pittosporum undulatum*
- *Jacaranda mimosifolia*
- *Ceratopetalum gummiferum*
- *Syncarpia glomulifera*
- *Cotoneaster* spp.
- *Bambusa* spp.
- *Ipomoea indica*
- *Acer negundo*
- *Omalanthus populifolius*
- *Casuarinas* pp.
- *Acmena smithii*.

Western vegetated slope looking **south** from the Mowbray Rd. Bridge towards Artarmon Station.

- Lophostemon confertus
- Pittosporum undulatum
- Acacia spp.
- Ceratopetalum gummiferum
- Ligustrum lucidum
- Cotoneaster spp.
- Callistemon salignus
- Acmena smithii
- Cupressus spp.

Frank Shannon Walk – plantings between sound barrier and rail tracks from Nelson Street to Chatswood Station.

- Eucalyptus saligna (1 only)
- Ficus pumila hedge
- Omalanthus populifolius - self sown
- Acacia longifolia – self sown
- Leptospermum spp.

Frank Shannon Walk – Landscaped area from masonry wall to sound barrier east of the pedestrian path from Nelson Street to Chatswood Station.

- Casuarins spp.
- Corymbia ficifolia
- Callistemon viminalis
- Omalanthus populifolius
- Acacia longifolia
- Doryanthes excelsa
- Banksia serrata
- Acacia implexa
- Callistemon pinifolius

Chatswood oval precinct eastern slope .

- Omalanthus populifolius
 - Melaleuca stypheloides
 - Ligustrum lucidum
 - Acacia spp.
 - Lomandra
 - Doryanthes excelsa
 - Araucaria cunninghamii
 - Araucaria bidwillii
- All trees / vegetation viewed were considered to be in good condition displaying structures and form typical of the species. Six species are considered undesirable invasive plants Cinnamomum camphora, Cotoneaster spp, Acer negundo, Ipomoea indica, Ligustrum lucidum and Bambusa spp.

We trust that this list of trees / vegetation addresses your immediate inquiry.

Stuart Pittendrigh Consultant Arborist M. Arb. Aust. (#2003)

Tree Survey Assessment Sheet

(NOTE: Tree heights and spreads estimated except where direct measurements could be made)

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
50105	<i>Casuarina glauca</i>	SM	10	7	200					Native species. Planted on embankment. Good form and health	
	Swamp She-oak										
50106	<i>Casuarina cunninghamiana</i>	SM	11	8	200					Native species. Planted on embankment. Good form and health	
	River Oak										
50107	<i>Casuarina cunninghamiana</i>	SM	10	7	200					Native species. Planted on embankment. Good form and health	
	River Oak										
50108	<i>Casuarina cunninghamiana</i>	SM	11	7	200					Native species. Planted on embankment. Good form and health	
	River Oak										
50109	<i>Agonis flexuosa</i>	OM	12	10	900					Old specimen growing in Scout Hall. Some decay and dieback present. Overhangs	
	Willow Myrtle										
50110	<i>Agonis flexuosa</i>	OM	8	9	600					Native species. Growing in Scout Hall. Declining condition. Does not overhang rail	
	Willow Myrtle										
50111	<i>Agonis flexuosa</i>	OM	8	5	400					Native species. Growing in Scout Hall. Declining condition. Overhangs cycleway by	
	Willow Myrtle										
50112	<i>Agonis flexuosa</i>	OM	8	6	400					Native species. Growing in Scout Hall. Declining condition. Does not overhang rail	
	Willow Myrtle										
50113	<i>Agonis flexuosa</i>	OM	12	6	500					Native species. Growing in Scout Hall. Fair condition. Does not overhang rail corridor.	
	Willow Myrtle										
50114	<i>Jacaranda mimosifolia</i>	M	11	9	400					Exotic spp. Growing in Scout Hall. Fair specimen. Suppressed by Euc. Overhangs	
	Jacaranda										
50115	<i>Eucalyptus scoparia</i>	M	19.5	20	900					Native species. Growing in Scout Hall. Good condition. Crown overhangs rail corridor by	
	Wallangarra White Gum										
50116	<i>Homalanthus populifolius</i>	SM	3	3	100					Self sown native weed species	
	Bleeding Heart										
50117	<i>Homalanthus populifolius</i>	SM	3.5	3	110					Self sown native weed species	
	Bleeding Heart										
50118	<i>Acacia longifolia</i>	M	4.5	8	150					Native species. Planted on embankment. Good form and health. Nearing final stages	
	Sydney Golden Wattle										
50119	<i>Corymbia gummifera</i>	SM	6	3	100/120					Native species. Planted on embankment. Poor form and some basal wounds.	
	Red Bloodwood										

Tree Survey Assessment Sheet

(NOTE: Tree heights and spreads estimated except where direct measurements could be made)

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
50120	<i>Corymbia gummifera</i>	SM	5	4	120					Native species. Planted on embankment. Reasonable form and health	
	Red Bloodwood										
50121	<i>Acacia implexa</i>	SM	6	3	100					Native species. Planted on embankment. Reasonable form fair health	
	Lightwood										
50122	<i>Acacia implexa</i>	SM	7	2	100					Native species. Planted on embankment. Poor form and health. Some dieback	
	Lightwood										
50123	<i>Corymbia gummifera</i>	SM	6	3	100					Native species. Planted on embankment. Poor form and some wounds.	
	Red Bloodwood										
50124	<i>Corymbia gummifera</i>	SM	6	3	100					Native species. Planted on embankment. Fair specimen.	
	Red Bloodwood										
50125	<i>Casuarina glauca</i>	SM	10	6	200					Native species. Planted on embankment. Fair to good specimen.	
	Swamp She-oak										
50126	<i>Corymbia gummifera</i>	SM	6	3	100/120					Native species. Planted on embankment. Poor form and some wounds.	
	Red Bloodwood										
50127	<i>Acacia longifolia</i>	M	3 to 6	-	-					Native species. Group planting on embankment. Mixed form and health	
	Sydney Golden Watt										
50128	<i>Corymbia gummifera</i>	SM	6	5	75/80/80					Native species. Planted on embankment. Multi-stemmed. Poor specimen.	
	Red Bloodwood										
50129	<i>Allocasuarina torulosa</i>	SM	7	4	100					Native species. Planted on embankment. Fair specimen. Growth slightly stunted.	
	Forest She-oak										
50130	<i>Acacia implexa</i>	SM	9	6	200					Native species. Planted on embankment. Fair specimen. Overhangs rain corridor.	
	Lightwood										
50131	<i>Allocasuarina torulosa</i>	SM	6	2	90					Native species. Planted on embankment. Poor form and reduced vigour. Some	
	Forest She-oak										
50132	<i>Corymbia gummifera</i>	SM	6	5	125					Native species. Planted on embankment. Poor form and reduced vigour.	
	Red Bloodwood										
50133	<i>Allocasuarina torulosa</i>	SM	5.5 to 7	3	90/100					Group x2. Native species. Planted on embankment. Poor form and reduced	
	Forest She-oak										
50134	<i>Acacia implexa</i>	SM	6 to 8	2 to 4	90/120					Group x3. Native species. Planted on embankment. Fair to poor form. Some	
	Lightwood										

Tree Survey Assessment Sheet

(NOTE: Tree heights and spreads estimated except where direct measurements could be made)

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
50135	<i>Allocasuarina torulosa</i> Forest She-oak	SM	7	3	90					Native species. Planted on embankment. Poor form and reduced vigour.	
50136	<i>Corymbia gummifera</i> Red Bloodwood	SM	5	4	75/90/100					Native species. Planted on embankment. Poor form and reduced vigour. Possible	
50137	<i>Acacia implexa</i> Lightwood	SM	6	2	90					Native species. Planted on embankment. Poor specimen.	
50138	<i>Allocasuarina torulosa</i> Forest She-oak	SM	9	5	250					Native species. Planted on embankment. Good form and vigour.	
50139	<i>Corymbia gummifera</i> Red Bloodwood	SM	6 to 6.5	3 to 5	100					Group x2. Native species. Planted on embankment. Good to poor form and some	
50140	<i>Acacia implexa</i> Lightwood	SM	6 to 9	2 to 4	120/160					Group x4. Native species. Planted on embankment. Good to poor form and some	
50141	<i>Acacia implexa</i> Lightwood	SM	4 to 6	1 to 2	50/75					Group x4. Native species. Planted on embankment. Fair to poor form and	
50142	<i>Casuarina cunninghamiana</i> River Oak	M	17.5	12	525	810				Large native species. Planted on pocket park at end of Gordon St. Good specimens	
50143	<i>Casuarina cunninghamiana</i> River Oak	M	17	12	375/530	710				Large native species. Planted on pocket park at end of Gordon St. Good specimens	
50144	<i>Taxodium distichum</i> Bald Cypress	M	14	13	755	835				Large exotic species. Street tree at end of Ellis St. Good specimens exhibiting good	
50145	<i>Elaeocarpus reticulatus</i> Blueberry Ash	M	8	5	140					Native species growing in Scout Hall grounds. Good specimens exhibiting good	
50146	<i>Callistemon viminalis</i> Weeping Bottlebrush	M	7.5	4	120					Native species growing in Scout Hall grounds. Declining tree exhibiting fair to	
50147	<i>Cryptomeria japonica</i> Japanese cedar	M	17.5	9	1000					Large exotic species located in bowling club grounds. Significant because of age, size	
50148	<i>Cryptomeria japonica</i> Japanese cedar	M	18	11	850					Large exotic species located in bowling club grounds. Significant because of age, size	

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
50149	<i>Callistemon citrinus</i>	M	8.5	6	180 310	410	4.8	2.28	2	Growing within substation grounds. Evergreen native tree introduced to the	3a
	Crimson Bottlebrush										
50150	<i>Callistemon viminalis</i>	M	4.5	6	190 260	470	3.6	2.4	3	Growing on boundary. Evergreen native tree introduced to the site, fair condition.	3a
	Weeping Bottlebrush										
50151	<i>Phoenix canariensis</i>	M	8	6	700	700	3	3	2	Located within private land. Palm species in good condition, species not rare or	2a
	Canary Is. Date Palm										
50152	<i>Cinnamomum camphora</i>	M	10	10	270 350	290	4.8	2	2	Realtively young specimen. Self sown weed species. Overhangs road and footpath by	3c
	Camphor Laurel										
50153	<i>Lagerstroemia indica</i>	M	7	11	120 130 180	630	3.6	2.7	2	Growing within private land. Deciduous exotic species. Growth supprsed by	2a
	Crepe Myrtle										
50154	<i>Cedrus deodara</i>	M	14	17	715	915	9.6	3.2	2	Growing within private land. Evergreen exotic species. Large spcimen in good	2a
	Himalayan Cedar										
50155	<i>Callistemon salignus</i>	M	10	9	210 400 430	620	7.2	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare	2d
	White Bottlebrush										
50156	<i>Robinia pseudoacacia 'Frisia'</i>	SM	5	4	150	-	1.2	-	3	Located within private land. Small deciduous tree showing reduced vigour.	3a
	Golden Robinia										
50157	<i>Shinus areira</i>	M	11	16	600	750	7.2	2.9	2	Large tree growing on boundary. Evergreen exotic planted within private property. Fair	2d
	Pepper-corn Tree										
50158	<i>Hakea salicifolia</i>	OM	7	5	200 250	-	3.6	-	2	Located on private land. Small evergreen native tree showing marked decline.	4a
	Willow-leaved Hakea										
50159	<i>Pittosporum undulatum</i>	M	7	8	250	-	3.6	-	2	Located on private land. Small evergreen native tree showing some decline and	3c
	Sweet Pittosporum										
50160	<i>Eucalyptus elata</i>	M	10	10	555	640	7.2	2.7	2	Growing in road reserve. Evergreen native species. Large specimen in good health and	2a
	River Peppermint										
50161	<i>Corymbia maculata</i>	M	13.5	13	450	550	6	2.6	2	Growing in road reserve. Evergreen native species. Large specimen in good health and	2a
	Spotted Gum										
50162	<i>Callistemon citrinus CV.</i>	M	5	4	75 90 120	200	2.4	1.7	3	Located on Council land. Small evergreen native tree introduced to the site, fair	3a
	Crimson Bottlebrush										
50163	<i>Callistemon citrinus CV.</i>	M	5	5	90	110	1.3	1.3	3	Located on Council land. Small evergreen native tree introduced to the site, fair	3a
	Crimson Bottlebrush										

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
50164	<i>Cinnamomum camphora</i>	M	17	20	480 620 1200	1450	16.9	3.9	2	Located on Council land. Large evergreen exotic tree. Fair condition, the species is	2b
	Camphor Laurel										
50165	<i>Phoenix canariensis</i>	M	10	6.5	700	700	6.5	2.9	2	Located on Council land. Palm species introduced to the site, good condition,	2a
	Canary Is. Date Palm										
50166	<i>Lagerstroemia indica</i>	M	9	7	90 120 140	480	2.4	2.4	2	Located on Council land. Deciduous exotic species. The two trees closely planted.	1a
	Crepe Myrtle										
50167	<i>Lagerstroemia indica</i>	M	10	7	00 120 150 19	650	3.6	2.8	2	Located on Council land. Deciduous exotic species. Large specimen. Multi-stemmed	1a
	Crepe Myrtle										
50168	<i>Bauhinia galpinii cv.</i>	OM	5	6	150	215	1.2	1.7	3	Located on Council land. Small deciduous tree showing marked decline. Extensive	3a
	Orchid Tree										
50169	<i>Tristaniopsis laurina</i>	M	8	9	80 260 320 40	710	7.2	2.9	2	Located on council verge. Evergreen native species planted approximately 1940.	1a
	Water Gum										
50170	<i>Tristaniopsis laurina</i>	SM	5	6	5 135 140 15	400	3.6	2.3	2	Located on council verge. Evergreen native species possibly planted approximately	1a
	Water Gum										
50171	<i>Callistemon viminalis</i>	M	6.5	7	00 120 150 16	380	3.6	2.2	3	Evergreen native tree introduced to the site, good condition, the species is not rare	2a
	Weeping Bottlebrush										
50172	<i>Tristaniopsis laurina</i>	SM	4	4	190	215	2.4	1.7	2	Located on council verge. Small infill planting. Evergreen native species planted	5a
	Water Gum										
50173	<i>Tristaniopsis laurina</i>	M	8	11	200 280 295	650	6	2.8	2	Located on council verge. Evergreen native species planted approximately 1940.	1a
	Water Gum										
50174	<i>Tristaniopsis laurina</i>	M	7.5	7	210 270 320	510	6	2.5	2	Located on council verge. Evergreen native species planted approximately 1940.	1a
	Water Gum										
50175	<i>Callistemon viminalis</i>	M	7.5	7	0 105 145 17	360	3.6	2.1	2	Growing on council verge. Evergreen native tree introduced to the site, fair condition,	2a
	Weeping Bottlebrush										
50176	<i>Acacia decurrens</i>	OM	7.5	11	230	330	2.4	2.1	4	Growing on council verge. Evergreen native tree introduced to the site, poor condition	4a
	Black Wattle										
50177	<i>Tristaniopsis laurina</i>	M	9.5	12	255 300 360	800	6	3	2	Located on council verge. Evergreen native species planted approximately 1940.	1a
	Water Gum										
50178	<i>Tristaniopsis laurina</i>	M	10.5	12	90 320 300 39	920	8.4	3.2	2	Located on council verge. Evergreen native species planted approximately 1940.	1a
	Water Gum										

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
50179	<i>Tristaniopsis laurina</i>	M	9.5	10	260 270 320	660	6	2.8	2	Located on council verge. Evergreen native species planted approximately 1940.	1a
	Water Gum										
50180	<i>Tristaniopsis laurina</i>	SM	3	3	50	130	1.4	1.4	3	Located on council verge. Small infill planting. Evergreen native species planted	5a
	Water Gum										
50181	<i>Tristaniopsis laurina</i>	M	7	7	250 335	455	4.8	2.4	2	Located on council verge. Small infill planting. Evergreen native species planted	1a
	Water Gum										
50182	<i>Tristaniopsis laurina</i>	SM	4	2	100	120	1.4	1.4	3	Located on council verge. Small infill planting. Evergreen native species planted	5a
	Water Gum										
50183	<i>Tristaniopsis laurina</i>	M	10.5	12	260 280 440	610	7.2	2.7	2	Located on council verge. Evergreen native species possibly planted approximately	1a
	Water Gum										
50184	<i>Lophostemon confertus</i>	M	10.5	9	320	370	3.6	2.2	2	Located in council footpath Evergreen native species. Exhibiting fair to good	2a
	Brush Box										
50185	<i>Lophostemon confertus</i>	M	11	11	300 450	550	6	2.6	2	Located in council footpath Evergreen native species. Exhibiting fair to good	2a
	Brush Box										
50186	<i>Lophostemon confertus</i>	M	10.5	8	550	570	7.2	2.6	2	Located in council footpath Evergreen native species. Exhibiting fair to good	2a
	Brush Box										
50187	<i>Triadica Sebifera</i>	SM	7.5	8	300	360	3.6	2.2	2	Exotic deciduous tree located on private property. Planted close to electrical . Hardy tree species in good health and overall vigor and is known to tolerate and recover from a high degree of disturbance	2a
	Chinese tallow										

Tree Survey Assessment Sheet

(NOTE: Tree heights and spreads estimated except where direct measurements could be made)

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
50188	<i>Harpullia pendula</i> Tulipwood	M	6	5	140	185	2	1.6		Street tree. Fair condition. Smaller size and sparse leaf cover. Retain and protect.	
50189	<i>Harpullia pendula</i> Tulipwood	M	9.5	5.5	175	215	2.4	1.75		Street tree. Fair to good condition. Trunk wound. Located on edge of proposed work	
50190	<i>Harpullia pendula</i> Tulipwood	M	7.5	9	240					Street tree. Good condition. Poor branch attachments. Trunk wound. Located within	
50191	<i>Harpullia pendula</i> Tulipwood	M	8.5	5	250					Street tree. Good condition. Poor branch attachments and included bark. Located	
50192	<i>Harpullia pendula</i> Tulipwood	M	9.5	9	310	335	3.6	2.1		Street tree. Good condition. Located on edge of proposed work area. Retain and	
50193	<i>Callistemon viminalis</i> Weeping bottlebrush	M	7	7	20/125/15					Requires removal for access of piling rig and associated works.	
50194	<i>Melaleuca quinquenervia</i> Broad-leaved paperbark	M	8	7	365					Requires removal for access of piling rig and associated works.	
50195	<i>Pittosporum undulatum</i> Sweet pittosporum	M	5.5	5	150					Requires removal for access of piling rig and associated works.	
50196	<i>Acacia saligna</i> Golden wreath wattle	OM								Dead wattle. Requires removal for access of piling rig and associated works.	
50197	<i>Harpullia pendula</i> Tulipwood	M	9	7	200/190/25					Native species. Growing in Park. Overhangs walkway. Good condition. Requires removal	
50198	<i>Acacia saligna</i> Golden wreath wattle	OM	9	6	250					Native species. Growing in Park. Overhangs walkway. Over mature wattle in advanced	



20 December 2019

John Holland CPB Ghella JV
Level 4, 140 Sussex Street,
Sydney, NSW, 2000

Att: Holly Hofland

Re: 79 Hampden Road, Artarmon

I refer to a single *Pittosporum undulatum* Sweet Pittosporum located on the rear boundary of the subject property. The tree appears to straddle the boundary between the rail corridor however no survey plan has been supplied to verify its actual location.

The subject tree would be classified as a locally native colonising species that is mature-over mature with poor health and poor crown structure, it is approaching senescence.

As a colonising species it readily seed along fence lines, often distributed by bird droppings, they establish quickly but are not considered to be long lived.

This tree needs to be removed as more than 50% of the crown has died and the remainder appears to be affected by borer and poor health and structure.

Care has been taken to obtain all information from reliable sources. All data has been verified as far as possible. However Adrian Swain - Consulting Arborist can neither guarantee nor be responsible for the accuracy of information provided by others. Unless stated otherwise:

- Information contained in this report covers only the tree/s examined and reflects the health and structure of the tree at the time of inspection. The documented, observations, results, recommendations and conclusions given may vary after the site visit due to environmental conditions. Liability will not be accepted for damage to person or property as a result of natural processes, unforeseeable actions or occurrences.

- Observations recorded for trees located within adjacent properties have been made without entering that property. As a result measurements for these trees are estimated. Similarly these trees were not subject to a complete visual inspection and defects or abnormalities may be present but not recorded.
- The inspection was limited to visual examination from the base of the subject tree without dissection, excavation, probing or coring; and
- There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject tree may not arise in the future.

If you have any other queries please do not hesitate to contact me directly.

Regards,



Adrian Swain
Director

Registered Landscape Architect

Fellow of the Australian Institute of Landscape Designers and Managers

Member of the Institute of Australian Consulting Arboriculturists

Member International Society of Arboriculture

Member of the Australian Institute of Horticulture

Member of the Local Government Tree Resources Association

Encl. Tree Survey Data Sheet and Tree Survey Data Sheet Notes

NO#	Genus	Species	Common Name	Height	Spread	DBH	DRB	SRZ	TPZ	Age	Health	Crown	Signifi- cance	Am	Eco	Form	Comments
1	<i>Pittosporum</i>	<i>undulatum</i>	Sweet Pittosporum	14	14	525	550	2575	6300	M-OM	P	P	L	L	M	US	50% Crown is dead. Co-dom @1.6m, remaining crown stressed. Recent excavation for rail project @ 2.2m offset.

Tree Survey Table Notes

Genus, Species and Common Name

The botanical and common name of each tree is identified and recorded. Occasionally the exact species name is unknown; sp. is recorded to indicate this.

Height, Spread, Trunk Dia, DBH and DRB

- The tree's height and spread is recorded in metres.
- The tree **DBH** is recorded in millimetres. DBH is an abbreviation of Diameter (of the trunk) measured at Breast Height (or 1.2m from the base of the trunk). If more than one trunk is present the DBH is calculated in accordance with AS4970-2009 Protection of Trees on Development Sites.
- If the tree has multiple trunks multiple trunks each trunk DBH (**Trunk Dia**) will be recorded individually.
- The tree **DRB** is recorded in millimetres. DRB is an abbreviation of Diameter (of the trunk) measured above the Root Buttress. It is required to calculate the SRZ in accordance with AS4970-2009 Protection of Trees on Development Sites when there is major encroachment within the TPZ, ie. greater than 10% is encroached upon or if there is an encroachment within the SRZ.

Age

The age class of each tree is estimated as either:

- **J** – Juvenile, a young sapling, easily replaced from nursery stock.
- **SM** - Semi Mature, a tree that has not grown to mature size.
- **M** - Mature, a tree that has reached mature size and will slowly increase in size over time.
- **OM** - Over Mature, a tree that has been mature for a long period and is beginning to display signs of decline, e.g. large dead branches.
- **S** - Senescent, an over mature tree that is now in decline.

Health and Vigour

The trees health and vigour is recorded as a measurement of:

- **G** - Good the tree does not appear stressed with no excessive dieback, insect infestation, decay, dead wood or epicormic shoots.
- **Avg** - Average Health the tree appears stressed and have some crown dieback, and/or a few epicormic shoots, and/or some dead wood in the crown and some new growth at branch tips.

These trees may benefit from remediation of the growing environment to reduce stress and return it to good health.

- **F** - Fair the tree may have areas of crown dieback, and/or epicormic shoots, and/or areas of decay, and/or reduced new growth at branch tips. These trees have been stressed for a short period of time, remediation of the growing environment may improve the trees health.
- **P** - Poor the tree may have large areas of crown dieback, and/or many epicormic shoots, and/or reduced new growth at branch tips. These trees have been stressed for a long time, remediation of the growing environment would not return the tree to good health.
- **D** – Dead the tree is dead

Structural Condition

The structural condition of each tree is assessed and recorded as either:

- **G** - Good Condition: the tree appears to have no visible indication of inherent structural defects.
- **Avg** - Average Condition: the tree has minor structural defects which may be corrected with remedial works or pruning, allowing the tree to return to Good Condition.
- **F** - Fair Condition: the tree has visible structural defects such as (but not limited to) dead branches, and/or an unbalanced crown, and/or leaning trunk and/or areas of decay. These trees do not demonstrate the typical form of their species, or have been damaged or have begun to deteriorate. Remedial works or pruning may return the tree to Average Condition.
- **P** - Poor Condition: the tree has significant structural defects such as (but not limited to) very large dead branches, and/or extremely unbalanced crown, and/or subsiding trunk and/or large areas of decay. These trees do not demonstrate the typical form of their species, or have been severely damaged or have deteriorated significantly. Remedial pruning would not return the tree to Fair Condition.

Significance

Measured as High, Medium or Low, see Error! Reference source not found.. Error! Reference source not found. (page **Error! Bookmark not defined.**). Significance may be expressed in increments of High, Medium or Low. For a High rating the majority (≥ 4) of the answers will be yes; For a Medium-High rating 3.5 of the answers will be yes; for a Medium rating half ($=3$) of the answers will be yes; for a Low-Medium rating 2.5 of the answers will be yes; and for the Low rating the minority of answers will be yes (≤ 2).

Amenity Value

Amenity value is a subjective measurement based on the tree's contribution to the landscape, it may be based on the tree's visual form, however it also includes

non visual attributes such as provision of shade for a seat, screening of poor views or for privacy, or if it has historical significance. The amenity value is recorded as:

- **H** - High, the trees form is an excellent example of its species and it makes a great specimen and/or it has other attributes such screening, or is historical significance. These trees are visually prominent and valuable to the community or public domain.
- **M** - Medium, the tree may have an altered form and/or it has attributes that provides amenity to local residents only.
- **L** - Low, the tree is not a good specimen and it does not provide substantial benefit to local residents or the community.

Ecological Value

Ecological value is a measurement of the trees contribution to the environment. It is determined by the trees area of origin, its potential to provide habitat to native fauna and its potential to become an environmental pest. The ecological value is recorded as:

- **H** - High, the tree is locally native or remnant and/or it has habitat value for native fauna.
- **M** - Medium the tree is native but not locally native.
- **L** - Low, the tree is not native and/or it may be a listed nuisance or weed species.
- **Ha** – Habitat, is the tree valued by fauna for food (ie. foliage fruit or sap) or shelter (ie. nesting, roosting, dray or hollow).

Form

The form, structure or shape of each tree is assessed and recorded as either one or a combination of several of the below terms; **(U)** Upright, **(B)** Broad, **(C)** Conical, **(Sh)** Shrub, **(BC)** Bias Crown **(CS)** Crown Shy (also referenced is the adjacent dominant tree canopy ie. **T4**), **(V)** Vase, **(D)** Dome, **(P)** Palm, **(S)** Spreading, **(L)** Leaning or **(BM)** Basal Multi Trunked.

Crown form may also be assessed in accordance with the relationship with the neighbouring tree and recorded as either: **S** - Suppressed, the crown is located beneath another larger crown and is leaning away (Crown Shy); **CD** - Codominant, the crown is adjacent to another crown of similar size, their crown areas may appear joined; **D** - Dominant, the crown is above other lower crowns; **E** - Emergent, the crown emerges from a lower canopy formed by other dominant or codominant crowns.

Defects

The presence of one or a combination of several defects is recorded **(W)** Wound, **(D)** Decay, **(F)** Fungus, **(B)** Bulge, **(FB)** Fibre Buckling, **(C)** Cracks, **(S)** Split, **(H)** Hollow, **(DB)** Die Back, **(E)** Epicormic shoots, **(DW)** Dead Wood, **(I)** Inclusion, **(CA)** Cavities, **(PF)** Previous Failure, **(R)** Root Damage, **(P)** Pruning wound, **(PD)** Pests and diseases, **(ST)** Storm Damage.

SRZ (Structural Root Zone)

The SRZ is a radial area extending outwards from the centre of the trunk. This area contains the majority of the structural woody roots. This area is responsible primarily for stability. Root damage or root loss within this zone greatly increases the opportunity for decay fungi to ingress into the heartwood, causing internal decay in addition to destabilising the tree's structural integrity. The SRZ is calculated as follows (This calculation is derived from the Australian Standard 4970 – 2009 Protection of Trees on Development Sites):

$$\text{SRZ (Radius)} = (D \times 50)^{0.42} \times 0.64$$

TPZ (Tree Protection Zone)

The TPZ is a circular area with a radius measured by multiplying the DBH by twelve (12), or a circular area the size of the tree's drip line whichever is greater. This area contains the majority of the essential structural and feeder roots responsible for stability, gaseous exchange and water and nutrient uptake. Excavation, back filling, compaction or other disturbance should not occur in this area.

The TPZ is used to identify the minimum area required for the safe retention of a given tree. This calculation is derived from the Australian Standard 4970 – 2009 Protection of Trees on Development Sites. An incursion to 10% within the TPZ is potentially acceptable if no other option is available. A major encroachment (in excess of 10%) is required to be clearly justified by the project Arborist and compensated for elsewhere. Justification methodology may vary depending on site or the individual tree's health, vigour and ability to withstand disturbance and may require root investigation.

Development Setback / Impact

The successful retention of trees on construction sites is dependent on the adequate allocation and management of the space above, below and around trees to be retained.

The trunk and canopy of trees to be retained must be protected to ensure the trunk and branches are not damaged during construction. The removal of bark and / or branches allows the potential ingress of micro organisms which may cause decay. Similarly the removal of bark restricts the tree's ability to distribute water, mineral ions and glucose.

It is essential to prevent the disturbance of the soil beneath the drip line of each tree, because this is the area where oxygen, water and mineral ions are absorbed by tree roots. Oxygen, water and mineral ions are essential for healthy plant growth. If soil becomes compacted, the ability of roots to function correctly is greatly reduced. Similarly the removal or damage of roots will reduce the ability of roots to function correctly. Woody roots provide stability for the tree and they also transport nutrients to the leaves.

The potential implications of removing or damaging roots are threefold:

1. The risk of whole tree failure is increased, as tree roots anchor and stabilise the tree. Woody roots are developed to assist in the support of the tree in prevailing wind, with these roots removed wind throw may occur, which would result in the mass failure of the tree.

2. The ability of the tree to absorb and transfer the essential nutrients, oxygen and water from the soil to the leaves is greatly affected. This will place the tree under stress and reduce the tree's ability to photosynthesise, and in turn cause the tree to use up stored energy reserves. These energy reserves are used to fight infection and insect attack, for new growth, maintenance of existing tissues and also for healing wounds. Once energy reserves become depleted a tree is much more susceptible to drought, disease and pest attack.
3. Open wounds are sites by which decay-causing pathogens can enter the tree. The severance or damage of woody roots creates sites where pathogens may gain ingress. Whilst the effect of decay may not be immediately apparent, the long term health and structure of the tree will be compromised.

Comments

Comments generally relate to the suitability for retention. The comments allow for a brief notation of other factors relevant to the assessment of the tree.

Appendix B - Artarmon

- Appendix B2 – Site Survey Drawing

100mm AT FULL SIZE Plot Date: 27/10/17 - 16:18



PLAN
SCALE 1:250

LEGEND		TREES	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	A CLASS HOARDING		EXISTING TREE TO BE RETAINED
	B CLASS HOARDING		EXISTING TREE TO BE REMOVED
	VEHICULAR ACCESS GATE		EXISTING TREE TO BE PRUNED
	SHADE CLOTH TO ATF FENCE		TREE PROTECTION ZONE
	SHADE CLOTH TO EXISTING FENCE		STRUCTURAL ROOT ZONE

- NOTE:**
- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION.
 - ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT THE TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS. DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
 - FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

REV	BY	DATE	DESCRIPTION	APPD.
A1	Original			

SCALES

25 0 25 5 75m

1:250 FULL SIZE A1

Client: Transport for NSW

Plot Date: 27/10/17 - 16:18

NOTE: Do not scale from this drawing.



Service Providers: **PARSONS BRINCKERHOFF**, **AECOM**, **COX HASSELL**

Drawn: MICHELLE JOYCE

Designed: _____

DRG CHECK: _____

DESIGN CHECK: _____

APPROVED: _____

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST

ARTARMON
URBAN DESIGN
TREE IMPACT ASSESSMENT PLAN
SHEET 1

STATUS: FOR INFORMATION ONLY

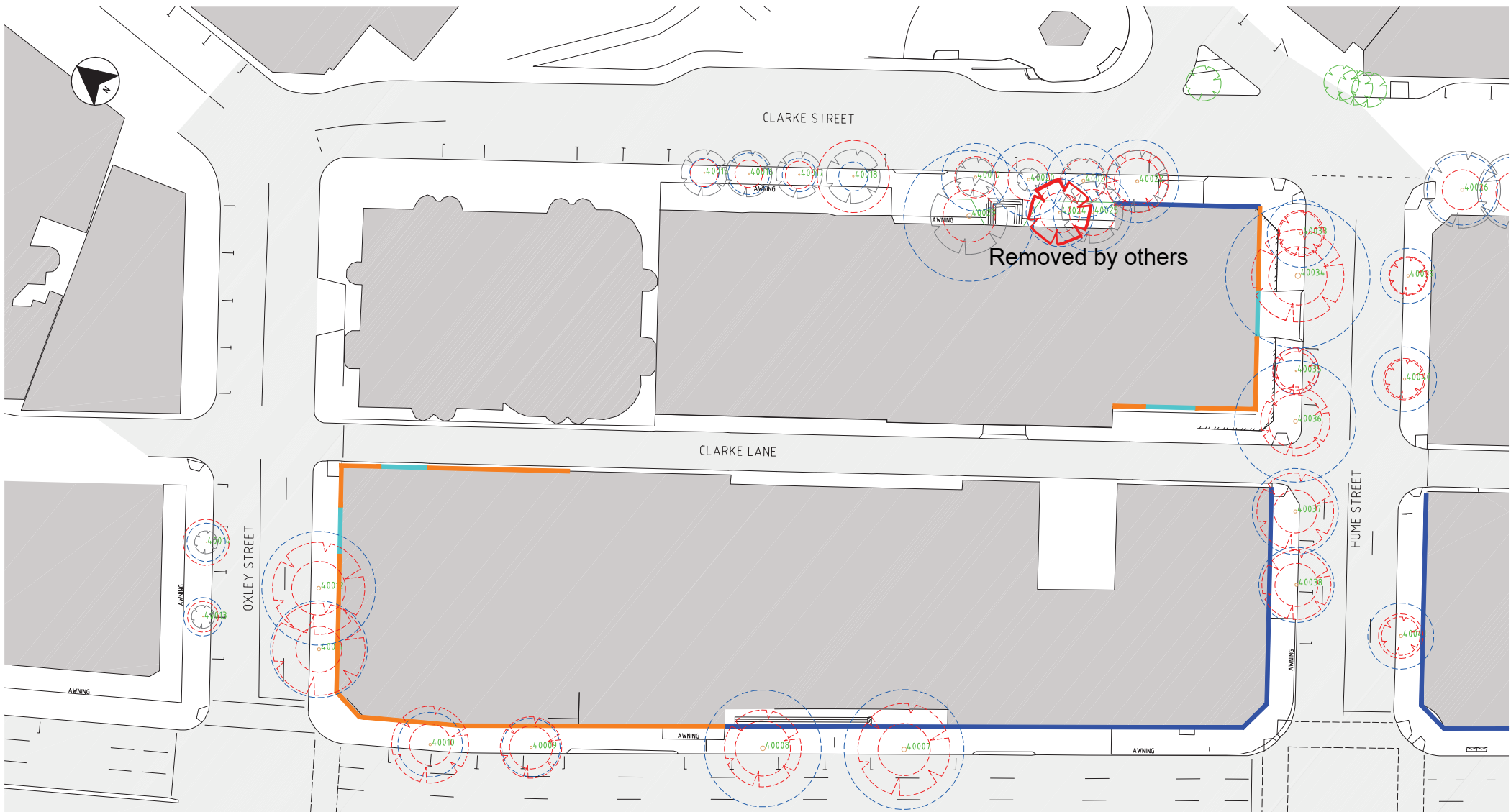
SHEET 1 OF 1

NWRL Dig No. NWRLSRT-PBA-NCW-JD-DWG-820221

Appendix C - Crows Nest

- Appendix C1 – Tree Impact Assessment Plan
- Appendix C2 - Arborist Tree Survey Report(s)
- Appendix C3 – Site Survey Drawing(s)

100mm AT FULL SIZE Plot Date: 22/12/17 - 11:03



LEGEND		TREES	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
GENERAL			
	A CLASS HOARDING		EXISTING TREE TO BE REMOVED
	B CLASS HOARDING		EXISTING TREE TO BE PRUNED
	VEHICULAR ACCESS GATE		TREE PROTECTION ZONE
	SHADE CLOTH TO ATF FENCE		STRUCTURAL ROOT ZONE
	SHADE CLOTH TO EXISTING FENCE		POT TREE

NOTE:

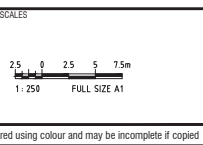
- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION.
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PACIFIC HIGHWAY

PLAN
SCALE 1:250

FOR INFORMATION ONLY

REV.	BY	DATE	DESCRIPTION	APPD.
B	MJ	19.12.17	ISSUED FOR INFORMATION	MMW
A	JP	16/06/2017	ISSUED FOR INFORMATION	AC



Plot Date: 22/12/17 - 11:03

NOTE: Do not scale from this drawing.



SERVICE PROVIDERS

PARSONS BRINCKERHOFF

AECOM

COX HASSELL

DESIGNED BY: JOHN PARGETER

DRG CHECK: ANTHONY CHARLESWORTH

DESIGN CHECK: ANTHONY CHARLESWORTH

APPROVED: ANTHONY CHARLESWORTH

SYDNEY METRO CITY & SOUTHWEST

CROWS NEST STATION

URBAN DESIGN

TREE IMPACT ASSESSMENT PLAN

SHEET 1

STATUS: FOR INFORMATION ONLY

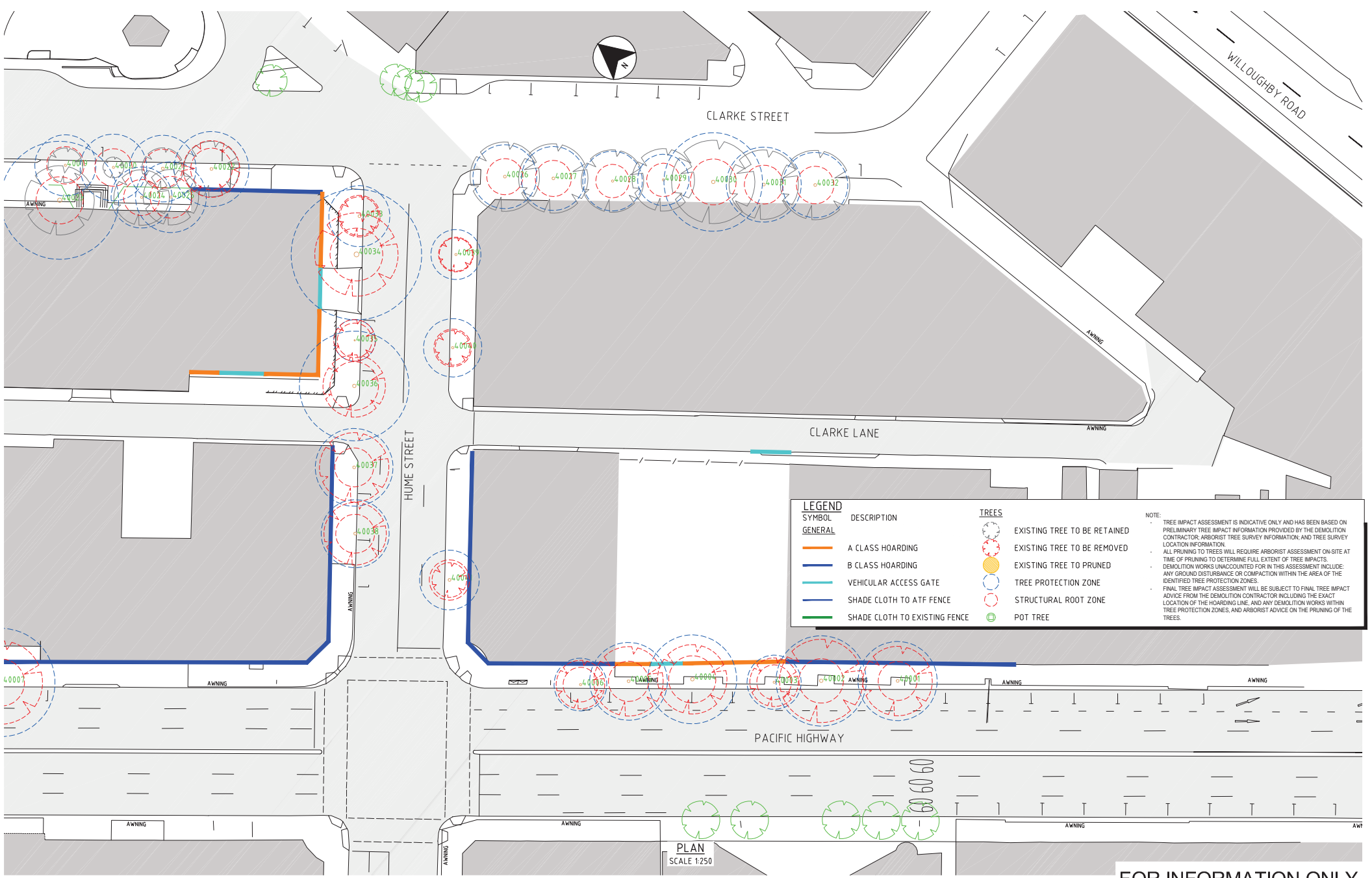
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SHEET 1 OF 4

WRL REV. B

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100mm ATF ALL SIZE Plot Date: 22/12/17 - 11:03



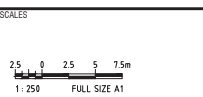
LEGEND		TREES	
GENERAL			EXISTING TREE TO BE RETAINED
	A CLASS HOARDING		EXISTING TREE TO BE REMOVED
	B CLASS HOARDING		EXISTING TREE TO BE PRUNED
	VEHICULAR ACCESS GATE		TREE PROTECTION ZONE
	SHADE CLOTH TO ATF FENCE		STRUCTURAL ROOT ZONE
	SHADE CLOTH TO EXISTING FENCE		POT TREE

NOTE:
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PLAN
SCALE 1:250

FOR INFORMATION ONLY

REV.	BY	DATE	DESCRIPTION	APPD.
B	MJ	19.12.17	ISSUED FOR INFORMATION	MMW
A	JP	16.06.17	ISSUED FOR INFORMATION	AC



Plot Date: 22/12/17 - 11:03

NOTE: Do not scale from this drawing.

CLIENT

Transport for NSW

SERVICE PROVIDERS

PARSONS BRINCKERHOFF

AECOM

COX HASSELL

DRAWN: JOHN PARGETER
 DESIGNED: ANTHONY CHARLESWORTH
 DRG CHECK: ANTHONY CHARLESWORTH
 DESIGN CHECK: ANTHONY CHARLESWORTH

SYDNEY METRO CITY & SOUTHWEST

CROW'S NEST STATION
 URBAN DESIGN
 TREE IMPACT ASSESSMENT PLAN
 SHEET 2

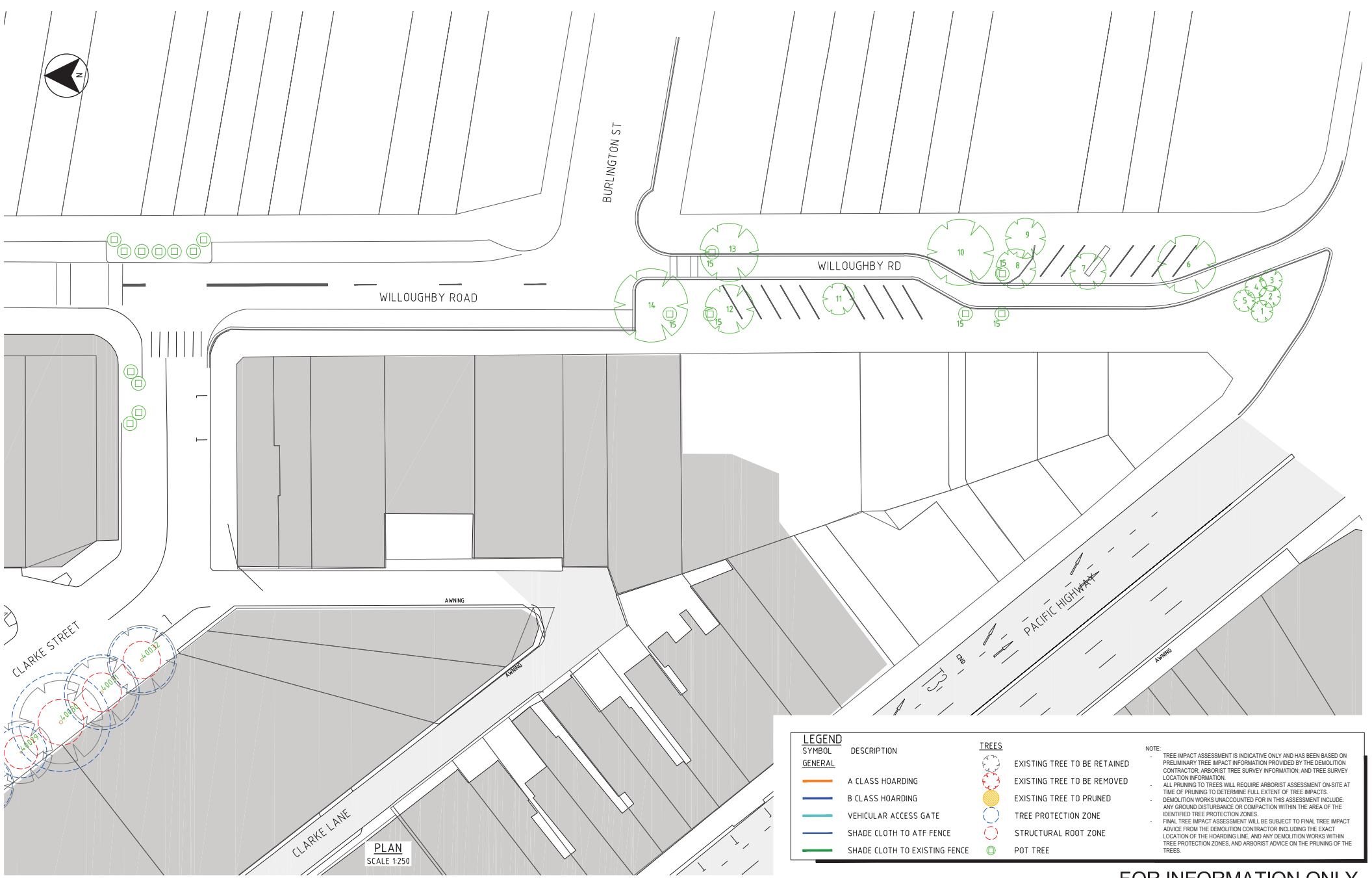
STATUS: FOR INFORMATION ONLY

NWRLSRT-PBA-SCN-UD-DWG-833223

SHEET 2 OF 4

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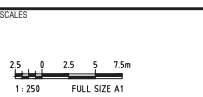
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LEGEND		TREES	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
GENERAL			
[Orange line]	A CLASS HOARDING	[Green circle with cross]	EXISTING TREE TO BE RETAINED
[Blue line]	B CLASS HOARDING	[Red circle with cross]	EXISTING TREE TO BE REMOVED
[Green line]	VEHICULAR ACCESS GATE	[Yellow circle]	EXISTING TREE TO BE PRUNED
[Blue line]	SHADE CLOTH TO ATF FENCE	[Blue circle]	TREE PROTECTION ZONE
[Green line]	SHADE CLOTH TO EXISTING FENCE	[Red circle]	STRUCTURAL ROOT ZONE
		[Green circle]	POT TREE

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REV.	BY	DATE	DESCRIPTION	APPD.
A	MJ	19.12.17	ISSUED FOR INFORMATION	MMW



Plot Date: 22/12/17 - 11:03

NOTE: Do not scale from this drawing.



CLIENT

Service Providers: PARSONS BRINCKERHOFF, AECOM, COX HASSELL

DESIGNED: JOHN PARGETER
 DRG CHECK: ANTHONY CHARLESWORTH
 DESIGN CHECK: ANTHONY CHARLESWORTH

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SYDNEY METRO CITY & SOUTHWEST
 CROW'S NEST STATION
 URBAN DESIGN
 TREE IMPACT ASSESSMENT PLAN
 SHEET 3

STATUS: FOR INFORMATION ONLY SHEET 3 OF 4

NWRL Dig No: NWRLSRT-PBA-SCN-UD-DWG-833224

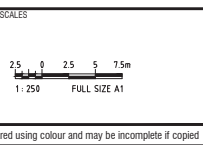
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LEGEND		TREES	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
GENERAL			
	A CLASS HOARDING		EXISTING TREE TO BE RETAINED
	B CLASS HOARDING		EXISTING TREE TO BE REMOVED
	VEHICULAR ACCESS GATE		EXISTING TREE TO BE PRUNED
	SHADE CLOTH TO ATF FENCE		TREE PROTECTION ZONE
	SHADE CLOTH TO EXISTING FENCE		STRUCTURAL ROOT ZONE
			POT TREE

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REV.	BY	DATE	DESCRIPTION	APPD.
A	MJ	19.12.17	ISSUED FOR INFORMATION	MMW



Plot Date: 22/12/17 - 11:03

CLIENT: Transport for NSW

SERVICE PROVIDERS

DESIGNED BY: JOHN PARGETER
 DRG CHECK: ANTHONY CHARLESWORTH
 DESIGN CHECK: ANTHONY CHARLESWORTH
 APPROVED: ANTHONY CHARLESWORTH

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST
 CROWS NEST STATION
 URBAN DESIGN
 TREE IMPACT ASSESSMENT PLAN - AERIAL
 SHEET 4

STATUS: FOR INFORMATION ONLY SHEET 4 OF 4

NRWL Dig No: NRWLSRT-PBA-SCN-UD-DWG-833225

NOTE: Do not scale from this drawing.

Co-ordinate System: MGA Zone 56 Height Datum: A.H.D. This sheet may be prepared using colour and may be incomplete if copied.

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1	Platanus acerifolia <i>London plane</i>	M	15	10	479	700	5.7	2.8	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, thinning crown, aerial cables above/through crown	2a
						Area m2	102	25			
2	Platanus acerifolia <i>London plane</i>	M	15	15	543	910	6.5	3.2	2	Streeet tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, epicormic growth, aerial cables above/through crown	2a
						Area m2	133	32			
3	Platanus acerifolia <i>London plane</i>	M	13	8	325	535	3.9	2.5	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, epicormic growth, aerial cables above/through crown	2a
						Area m2	48	20			
4	Platanus acerifolia <i>London plane</i>	M	14	15	532	1070	6.4	3.4	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, epicormic growth, aerial cables above/through crown	2a
						Area m2	129	36			
5	Platanus acerifolia <i>London plane</i>	M	17	12	470	710	5.6	2.9	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, epicormic growth, aerial cables above/through crown	2a
						Area m2	99	26			
6	Platanus acerifolia <i>London plane</i>	M	9	9.5	315	533	3.8	2.5	2	Stree tree. Deciduous tree introduced to the site, fair to good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth, aerial cables above/through crown	2e
						Area m2	45	20			
7	Platanus acerifolia <i>London plane</i>	M	12	12	647	1100	7.8	3.4	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, extensive exposed surface roots, aerial cables above/through crown, damaged kerb and gutter.	2a
						Area m2	191	36			
8	Platanus acerifolia <i>London plane</i>	M	13	10.5	632	1280	7.6	3.7	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, aerial cables above/through crown, fair condition, average condition, extensive exposed surface roots	2a
						Area m2	181	43			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
9	Platanus acerifolia <i>London plane</i>	M	9	10	320	667	3.8	2.8	2	Street tree. Deciduous tree introduced to the site, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, thinning crown, epicormic growth		3a
						Area m2	45	25				
10	Platanus acerifolia <i>London plane</i>	M	10	13	349	630	4.2	2.7	2	Street tree. Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, extensive exposed surface roots, aerial cables above/through crown		2a
						Area m2	55	23				
11	Platanus acerifolia <i>London plane</i>	M	13.5	11.5	528	820	6.3	3	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, extensive exposed surface roots		2a
						Area m2	125	28				
12	Platanus acerifolia <i>London plane</i>	M	19	11.8	620	1150	7.4	3.5	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, extensive exposed surface roots		2a
						Area m2	172	38				
13	Platanus acerifolia <i>London plane</i>	SM	4	3	58	80	2.5	2	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	20	13				
14	Platanus acerifolia <i>London plane</i>	SM	3	2.5	51	80	2.5	3	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	20	28				
15	Platanus acerifolia <i>London plane</i>	M	8	6	157	225	1.9	1.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, no visible evidence of pests or disease, structure & form modified by past pruning, aerial cables above/through crown		2a
						Area m2	11	10				
16	Platanus acerifolia <i>London plane</i>	M	9	7	225	242	2.7	1.8	2	Street tree, deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, storm damage, branch wound, tree has excessive lean northeast aerial cables above/through crown		3e
						Area m2	23	10				

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
17	Platanus acerifolia <i>London plane</i>	M	9	7.5	183	235	2.2	1.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, tree has excessive lean east, aerial cables above/through crown		3e
						Area m2	15	10				
18	Platanus acerifolia <i>London plane</i>	M	7	6	162	2315	1.9	4.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, tree has excessive lean east, aerial cables above/through crown		3e
						Area m2	11	69				
19	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	10	7	364	597	4.4	2.7	2	Street tree, evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, extensive exposed surface roots, aerial cables above/through crown		3a
						Area m2	61	23				
20	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	5	3	400	592	4.8	2.7	2	Street tree, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, extensive exposed surface roots, aerial cables above/through crown		3a
						Area m2	72	23				
21	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	4.75	3	396	690	4.8	2.8	2	Street tree, evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, extensive exposed surface roots, aerial cables above/through crown		3a
						Area m2	72	25				
22	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	8	7.5	448	768	5.4	3	2	Street tree, evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, extensive exposed surface roots, aerial cables above/through crown		2a
						Area m2	92	28				
23	Platanus acerifolia <i>London plane</i>	M	16	12	705	1050	8.5	3.4	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth		2a
						Area m2	227	36				
24	Platanus acerifolia <i>London plane</i>	M	15	9	370	572	4.4	2.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, epicormic growth		2a
						Area m2	61	21				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
25	Platanus acerifolia <i>London plane</i>	M	15.5	11	423	800	5.1	3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth		2a
						Area m2	82	28				
26	Platanus acerifolia <i>London plane</i>	M	17	8	382	580	4.6	2.6	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, tree has excessive lean north, trip hazard on path from raised synthetic mulch surround.		2e
						Area m2	66	21				
27	Platanus acerifolia <i>London plane</i>	M	17	8	385	560	4.6	2.6	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, tree has lean north		2a
						Area m2	66	21				
28	Platanus acerifolia <i>London plane</i>	M	15	7	355	453	4.3	2.4	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, tree has lean north		2a
						Area m2	58	18				
29	Platanus acerifolia <i>London plane</i>	M	15	7	310	450	3.7	2.4	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, tree has lean north		2a
						Area m2	43	18				
30	Platanus acerifolia <i>London plane</i>	M	18	10	590	1000	7.1	3.3	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, tree has lean north, trip hazard on path		2e
						Area m2	158	34				
31	Platanus acerifolia <i>London plane</i>	M	16	11	452	682	5.4	2.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, tree has lean north		2a
						Area m2	92	25				
32	Platanus acerifolia <i>London plane</i>	M	12	7	393	610	4.7	2.7	2	Street tree, deciduous tree introduced to the site, the species is not rare or endangered, structure & form modified by past pruning, thinning crown, tree has excessive lean north		3a
						Area m2	69	23				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
33	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	10	6	365	680	4.4	2.8	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, thinning crown		2e
						Area m2	61	25				
34	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	12	12	780	1380	9.4	3.8	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, extensive exposed surface roots		2a
						Area m2	278	45				
35	Sapium sebiferum <i>Chinese tallow</i>	M	6	7	248	495	3	2.5	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back		2a
						Area m2	28	20				
36	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	11	8.5	660	1180	7.9	3.5	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	196	38				
37	Sapium sebiferum <i>Chinese tallow</i>	M	11	12	470	690	5.6	2.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, tree stressed, decline in vigour, small branch and twig die back		2a
						Area m2	99	25				
38	Sapium sebiferum <i>Chinese tallow</i>	M	10	10	406	695	4.9	2.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back		2a
						Area m2	75	25				
39	Sapium sebiferum <i>Chinese tallow</i>	M	5.5	5	297	472	3.6	2.4	3	Street tree, deciduous tree introduced to the site, average condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, aerial cables above/through crown, poor form heavily pruned.		3a
						Area m2	41	18				
40	Sapium sebiferum <i>Chinese tallow</i>	M	6	7	348	630	4.2	2.7	3	Street tree, deciduous tree introduced to the site, average condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth, aerial cables above/through crown, poor form heavily pruned.		3a
						Area m2	55	23				

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
41	Sapium sebiferum <i>Chinese tallow</i>	M	5	3	360	710	4.3	2.9		Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, aerial cables above/through crown, poor form heavily pruned.		3a
						Area m2	58	26				



- NOTES**
- 10 ELECTRONIC FILE IS PROVIDED WITHOUT WARRANTY AND SHOULD BE USED ONLY IN CONJUNCTION WITH THE SUPPLIED PDF/PAPER COPY OF THIS PLAN.
 - 20 BOUNDARIES
THE POSITION OF THE BOUNDARIES ON THE PLAN AND WITHIN THE CAD FILE ARE DERIVED FROM SURVEY ACCURATE CADASTRAL MODELLING UNDERTAKEN BY RPS IN APRIL 2015 AND BASED ON THE NSW LPI DIGITAL CADASTRAL DATABASE. NO FIELD INVESTIGATIONS HAVE BEEN CARRIED OUT TO CONFIRM THE LOCATION OR DIMENSIONS OF THE MODELLING INVESTIGATION.
 - 30 LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD) BASED ON THE PROJECT PRIMARY CONTROL TRAVERSE USING SSM85255 WITH RL OF 83.571m LOCATED AT THE INTERSECTION OXLEY ST AND CLARK ST.
 - 40 ORIGIN OF COORDINATES SSM 85255 WITH MGA COORDINATE VALUES OF E:33325424 N:6252938704

NO.	DATE	REVISION DETAILS
A	06.04.2017	INITIAL VERSION

HORIZ. SCALE	1:400 @ A1	VERT. SCALE	N/A @ A1
COORDINATES	MGA	DATUM	AHD
ORIGIN	SSM85255	ORIGIN	SSM85255

NOTES

CLIENT	NSW Transport for NSW
SURVEY	ZR
DATE OF SURVEY	03.04.2017
DRAWN	JMI
DATE OF PLAN	06.04.2017
CHECKED	MCL
DATE LAST SAVED	06.04.2017
APPROVED	MCL
DATE APPROVED	06.04.2017

TITLE	SYDNEY METRO CITY AND SOUTH WEST Tree Survey - Crown Nest Station
DRAWING NO.	NWRLSRT-RPS-SCN-SR-DWG-000016.dwg

JOB No.	PR124856
ISSUE	A
SHEET 1 OF 1	SHEETS A1

Appendix D – Victoria Cross North

- Appendix D1 – Tree Impact Assessment Plan
- Appendix D2 - Arborist Tree Survey Report(s)
- Appendix D3 - Site Survey Drawing(s)

NOTE:
- THIS TREE IMPACT ASSESSMENT DOES NOT ACCOUNT FOR ANY GROUND DISTURBANCE INCLUDING EXCAVATION, TRENCHING, OR COMPACTION WITHIN THE TREE PROTECTION ZONES OF THE TREES.

LEGEND

SYMBOL	DESCRIPTION
GENERAL	
	A CLASS HOARDING
	B CLASS HOARDING
	VEHICULAR ACCESS GATE
	SHADE CLOTH TO ATF FENCE
	SHADE CLOTH TO EXISTING FENCE
TREES	
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	EXISTING TREE TO PRUNED
	TREE PROTECTION ZONE
	STRUCTURAL ROOT ZONE

NOTE:
- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION. ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.



PLAN
SCALE 1:250

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST

VICTORIA CROSS SITE 1
URBAN DESIGN
TREE IMPACT ASSESSMENT PLAN

STATUS: FOR INFORMATION ONLY SHEET 1 OF 1

NWRL Dwg No. NWRLSRT-NWR-SVC-UD-DWG-000002 NWRL REV. B

REV.	BY	DATE	DESCRIPTION	APPD.
B		12.04.18	UPDATED 1011 AND 1012	
A		26.02.18	UPDATED TREE IMPACT	
			PREVIOUS REVISION AS DWG NWRLSRT-PBA-SVC-UD-DWG-834222	

SCALES

2.5 0 2.5 5 7.5m

1:250 FULL SIZE A1



NOTE: Do not scale from this drawing.

CLIENT

D:\20180219-Vic\04_Victoria Cross\TINSW.ppt

Service Providers

DRAWN _____

DESIGNED _____

DRG CHECK _____

DESIGN CHECK _____

APPROVED _____

A1 Original Co-ordinate System: MGA Zone 56 Height Datum: A.H.D. This sheet may be prepared using colour and may be incomplete if copied

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1000	Platanus x hybrida <i>Plane tree</i>	M	15	9	410	550	4.9	2.6	2	Street tree. Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth, exposed surface roots, aerial cables above/through crown	2a
						Area m2	75	21			
1001	Platanus x hybrida <i>Plane tree</i>	M	16.5	12.5	650	880	7.8	3.1	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, exposed surface roots, aerial cables above/through crown	2a
						Area m2	191	30			
1002	Dead tree ----		0	0		0	0	0		Dead tree	
						Area m2	0	0			
1003	Brachychiton acerifolius <i>Illawarra flame</i>	M	13	5	337	396	4	2.2	2	Deciduous native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back mupper crown could be invasion from possums	2a
						Area m2	50	15			
1004	Camellia sasanqua <i>Sasanqua</i>	M	4	3	Multi stem	240	3	2	2	Small evergreen tree/tall shrub introduced to the site, evergreen tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning	2a
						Area m2	28	13			
1005	Callistemon viminalis <i>Weeping bottlebrush</i>	SM	3	2	40	75	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	13			
1006	Jacaranda mimosifolia <i>Jacaranda tree</i>	M	16	15	240	603	6.3	2.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back, structure & form modified by past pruning	2a
					316		Area m2	125	23		
					350						
1007	Hakea laurina <i>Pincushion plant</i>	M	6.5	5	255	496	3.1	2.5	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	30	20			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1008	Banksia serrata <i>Saw toothed banksia</i>	M	7.5	3.5	115	170	2.5	2	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	13			
1009	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	11	5	304	396	3.6	2.2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	41	15			
1010	Corymbia maculata <i>Spotted gum</i>	M	18.8	412	765	1100	9.2	3.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back	2a
						Area m2	266	36			
1011	Eucalyptus robusta <i>Swamp mahogany</i>	M	12	10	394	532	4.7	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, tree has lean to south	2a
						Area m2	69	20			
1012	Casuarina cunninghamiana <i>River she oak</i>	M	9	4	165	211	2.5	2	2	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, canopy dieback and hazardous deadwood, small branch and twig die back, decline in vigour	3a
						Area m2	20	13			
1013	Callitris columellaris <i>Coast cypress pine</i>	SM	4.5	3	114	162	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, tree has lean towards north west.	2a
						Area m2	20	13			
1014	Elaeocarpus reticulatus <i>Blueberry ash</i>	SM	3	3	55	70	2.5	2	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species	
						Area m2	20	13			
1015	No tree on site -----		0	0		0	0	0			
						Area m2	0	0			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1016	Eucalyptus microcorys <i>Tallow wood</i>	M	18.5	12	823	1065	9.9	3.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, canopy dieback and hazardous deadwood, small branch and twig die back, storm damage	2e
						Area m2	308	36			
1017	Acmena smithii <i>Lilly pilly</i>	M	6	6	225	265	2.7	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, suppressed north west elevation	2e
						Area m2	23	13			
1018	Allocasuarina torulosa <i>Forest oak</i>	M	9	5	265	374	3.2	2.2	2	Evergreen tree indigenous to the locality, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, tree has excessive lean to north	3a
						Area m2	32	15			
1019	Omalanthus populifolius <i>Native bleeding heart</i>	M	4	3	65	77	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	13			
1020	Jacaranda mimosifolia <i>Jacaranda tree</i>	M	12	8	558	546	6.7	2.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	141	21			
1021	Archontophoenix alexandrae <i>Alexander palm</i>	M	8	4	200	487	3.8	2.4	2	Palm species introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed	2e
					245	Area m2	45	18			
1022	Archontophoenix alexandrae <i>Alexander palm</i>	M	6.5	3	140	354	2.6	2.1	2	Palm species introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed	2e
					165	Area m2	21	14			
1023	Camellia sasanqua <i>Sasanqua</i>	M	5	4	Multi stem	150	2.5	2	2	Small evergreen tree/tall shrub introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
						Area m2	20	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1024	Platanus x hybrida <i>Plane tree</i>	M	10	6	363	494	4.4	2.5	2	Street tree. Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, aerial cables above/through crown, poor structure and form	2a
						Area m2	61	20			
1025	Ficus rubiginosa <i>Port Jackson fig</i>	M	14	21	1500	1700	15	4.1	2	Evergreen native tree introduced to the site, tree appears to be self sown. Good condition, the species is not rare or endangered, co-dominant stems, strong union, storm damage, structure & form modified by past pruning	2a
						Area m2	707	53			
1026	Platanus x hybrida <i>Plane tree</i>	M	16	10	482	700	5.8	2.8	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	106	25			
1027	Strelitzia nicholii <i>Giant bird of paradise</i>	M	5	5	Multi stem	0	5	3	2	Small evergreen tree/tall shrub introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, storm damage	3a
					clump	Area m2	79	28			
1028	Platanus x hybrida <i>Plane tree</i>	M	16.5	12	687	792	8.2	3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	211	28			
1029	Platanus x hybrida <i>Plane tree</i>	M	11	10	583	714	7	2.9	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, aerial cables above/through crown	2a
						Area m2	154	26			
1030	Acmena species <i>Hybrid lilly pilly</i>	M	5	4	175	350	2.5	2.1	2	Street tree. Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	14			
1031	Acmena species <i>Hybrid lilly pilly</i>	M	6	3	100	195	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1032	Archontophoenix alexandrae <i>Alexander palm</i>	M	5.5	3	145	200	2.5	2	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, suppressed	2a
						Area m2	20	13			
1033	Ficus macrophylla <i>Morton Bay fig</i>	M	18.5	24	1900	2800	15	5.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, structure & form modified by past pruning, aerial cables above/through crown, decay / rot in branch collars	2a
						Area m2	707	82			
1034	Archontophoenix alexandrae <i>Alexander palm</i>	M	6	3	180	306	2.5	2	2	Palm species introduced to the site, average condition, the species is not rare or endangered, structure and form typical of the species, decline in vigour.	3a
						Area m2	20	13			
1035	Unidentified spp. <i>To be identified</i>	SM	6	4	90	110	2.5	2	2	Evergreen tree introduced to the site, fair to average condition, small branch and twig die back, thinning crown, suppressed	3a
						Area m2	20	13			
1036	Photinia serratifolia <i>Chinese hawthorn</i>	M	4	4	Multi stem	380	3	2.2	1	Small evergreen tree/tall shrub introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, epicormic growth	3a
						Area m2	28	15			
1037	Archontophoenix alexandrae <i>Alexander palm</i>	M	7	4.5	228	390	2.7	2.2	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	23	15			
1038	Celtis occidentalis <i>Hackberry</i>	M	10	7	223	284	2.7	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, undesirable invasive species	4a
						Area m2	23	13			
1039	Archontophoenix alexandrae <i>Alexander palm</i>	M	8	4	230	389	2.8	2.2	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	25	15			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1040	Photinia robusta <i>Photinia</i>	M	4	5	2x90 110	335 Area m2	2.5 20	2.1 14	3	Small evergreen tree/tall shrub introduced to the site, average to poor condition, small branch and twig die back, epicormic growth, modified by past pruning	3a
1041	Strelitzia nicholii <i>Giant bird of paradise</i>	M	7	3	Multi stem	0 Area m2	3 28	3 28	3	Small evergreen tree/tall shrub introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, storm damage	3a
1042	Ficus macrophylla <i>Morton Bay fig</i>	M	16	10	1400	2700 Area m2	15 707	5 79	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, epicormic growth, modified by past pruning, exposed surface roots, aerial cables above/through crown, decay / rot in branch collars	2e
1043	Platanus x hybrida <i>Plane tree</i>	M	10.8	7	210	360 Area m2	2.5 20	2.2 15	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, modified by past pruning	2a
1044	Platanus x hybrida <i>Plane tree</i>		9	6.5	150	230 Area m2	2.5 20	1.8 10	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	2a
1045	Platanus x hybrida <i>Plane tree</i>	M	17.5	8	380	625 Area m2	4.6 66	2.7 23	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	2a
1046	No tree on site -----		0	0		0 Area m2	0 0	0 0		No tree	
1047	Platanus x hybrida <i>Plane tree</i>	M	14.5	11	380	540 Area m2	4.6 66	2.6 21	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	2a

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1048	Platanus x hybrida <i>Plane tree</i>	M	13	8	430	540	5.2	2.6	2	Street tree. Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	2a
						Area m2	85	21			
1049	Camellia japonica <i>Camellia</i>	Y	1.5	0.7	Multi stem	50	0	1.5	3	Small sbrub , average condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed	3e
						Area m2	0	7			
1050	Rondeletia amonea <i>Pink rondelitia</i>	SM	3	1.5	Multi stem	100	0	1.5	3	Shrub, average condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed	3e
						Area m2	0	7			
2031	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	10	6	320	625	5.9	2.7	2	Street tree. Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back	2a
					370	Area m2	109	23			
2670	Callistemon viminalis <i>Weeping bottlebrush</i>	M	8	4	160	280	2.5	1.9	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed northern elevation	3a
						Area m2	20	11			
2671	Acmena smithii <i>Lilly pilly</i>	M	10	10	440	537	5.3	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	2a
						Area m2	88	20			
2672	Callistemon viminalis <i>Weeping bottlebrush</i>	M	8	3	133	200	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed western elevation	3a
						Area m2	20	13			
2809	Cyathea cooperi <i>Cooper's tree fern</i>	M	6.5	3	145	283	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	13			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
2860	<i>Ficus rubiginosa</i> <i>Port Jackson fig</i>	M	10	5	85	600	4.4	2.7	2	Evergreen tree indigenous to the locality, most likely self sown, fair condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed by surrounding bamboo	2a
					2x250	Area m2	61	23			
2938	<i>Archontophoenix alexandrae</i> <i>Alexander palm</i>	M	8	5	225	357	2.7	2.1	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	23	14			
2942	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	9.5	6	92	447	4.2	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back	2a
					337	Area m2	55	18			
2943	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	10	6	260	415	3.1	2.3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back	2a
						Area m2	30	17			
2944	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	14	8	330	670	4	2.8	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed, trunk wound compartmentalised.	2a
						Area m2	50	25			
2945	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	10	4.5	120	415	3.7	2.3	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed	3a
					280	Area m2	43	17			
2946	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	8.5	6	105	300	2.6	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed eastern elevation	2a
					188	Area m2	21	13			
2947	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	10	4	255	375	3.1	2.2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed, storm damage	2a
						Area m2	30	15			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
2948	Banksia integrifolia <i>Coast banksia</i>	M	9	5	180	300	2.2	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed	2a
						Area m2	15	13			
2949	Banksia integrifolia <i>Coast banksia</i>	M	10	5	205	280	2.5	1.9	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed	2a
						Area m2	20	11			
2950	No tree on site -----		0	0		0	0	0		Tree felled	
						Area m2	0	0			
2951	Banksia integrifolia <i>Coast banksia</i>	M	7	2	130	220	2	1.8	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, storm damage, modified by past pruning	3a
						Area m2	13	10			
2952	Strelitzia nicholii <i>Giant bird of paradise</i>	M	6.5	3	Multi stem	800	4	3	2	Small evergreen tree/tall shrub introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	50	28			
2953	Howea forsteriana <i>Kentia palm</i>	M	6	4	120	128	2	1.5	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
3020	Ulmus parvifolia <i>Chinese elm</i>	M	8	7	135	340	2.5	2.1	3	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed	3a
					155	Area m2	20	14			
3022	Ilex aquifolium <i>European Holly</i>	M	7	7.5	130	450	2.6	2.4	3	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, undesirable invasive species	2c
					177	Area m2	21	18			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
3023	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	8	4	205	320	2.5	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, twig dieback, structure and form typical of the species	2a
						Area m2	20	14			
3024	<i>Pittosporum undulatum</i> <i>Native daphne</i>	M	6	7	130	160	2	1.5	3	Evergreen tree indigenous to the locality, average condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, tree stressed, decline in vigour	4b
						Area m2	13	7			
3025	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	12	6	100	305	2.9	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed southern elevation	2a
					220	Area m2	26	13			
3026	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	12	5.5	292	410	3.5	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back	2a
						Area m2	38	17			
3027	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	10	4.5	105	160	2	1.5	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, structure and form typical of the species, suppressed, fair condition, co-dominant stems, strong union	3a
						Area m2	13	7			
3028	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	6	4	65	250	2	1.8	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species	2a
					123	Area m2	13	10			
3029	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	12	4.5	200	320	2.4	2.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed eastern elevation	2a
						Area m2	18	14			
3030	<i>Ulmus parvifolia</i> <i>Chinese elm</i>	M	8	6	100	270	2	1.9	3	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed southern elevation	3a
					120	Area m2	13	11			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
3031	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	9	5	260	355	3.1	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back	2a
						Area m2	30	14			
3032	<i>Banksia integrifolia</i> <i>Coast banksia</i>	M	6	4.5	175	265	2.1	1.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back	2a
						Area m2	14	11			
3033	No tree on site -----		0	0		0	0	0		Disturbed ground. Tree felled / removed from site	
						Area m2	0	0			
3073	<i>Phoenix canariensis</i> <i>Canary Island date palm</i>	M	10	9	616	1200	7.4	3.6	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, invaded by ivy vine, aerial cables above/through crown, known to be an invasive species.	2a
						Area m2	172	41			
3074	<i>Elaeocarpus eumundi</i> <i>Smooth leaf quandong</i>	M	7	5.5	240	232	2.9	1.8	2	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, undesirable invasive species, aerial cables above/through crown	2c
						Area m2	26	10			
3075	<i>Cinnamomum camphora</i> <i>Camphor laurel</i>	M	16	20	805	912	9.7	3.2	2	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, undesirable invasive species, aerial cables above near by.	2a
						Area m2	296	32			
3076	<i>Eucalyptus botryoides</i> <i>Bangalay</i>	M	21	8	330	420	4	2.3	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, structure and form typical of the species, canopy dieback and hazardous deadwood, small branch and twig die back, suppressed, poor structure and form.	3a
						Area m2	50	17			
3077	<i>Nerium oleander</i> <i>Oleander shrub</i>	M	4	6	Multi stem	1000	4	3.3	3	Small evergreen tree/tall shrub introduced to the site, average condition	3a
						Area m2	50	34			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
3078	Platanus acerifolia <i>London plane</i>	M	19	22	990	1230	11.9	3.6	2	Good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, s modified by past pruning, decay / wound observed on main stem at 9m above ground level possibe point of failure, aerial inspection recommended.	2a
						Area m2	445	41			

PUBLIC UTILITY LEGEND

- ELELEC**
- CABLE JUNCTION BOX (PEUB)
 - CABLE MANHOLE (PEUM)
 - DISTRIBUTION FUSE POINT
 - POLE - LIGHT (PLL)
 - POLE - POWER (PPL)
 - POLE - POWER LIGHT (PPLP)
 - POLE - POWER & TRANSFORMER (PPTR)
 - POWER SERVICE PILLAR - UNDERGROUND (PEUP)
 - TRANSFORMER CABINET CENTRE (PETC)
 - HOUSE CONNECTION (BY)
 - CONDUIT (E2)
 - LINE 4-NDRGRUND (E2)
 - LINE 4-NDRGRUND (E4)
- ETICS**
- TRAFFIC CONTROL SIGNAL (PSGL)
 - TRAFFIC SIGNAL CONTROLLER (PSCL)
 - TRAFFIC SIGNAL DETECTOR (PSDR)
 - TRAFFIC SIGNAL JUNCTION BOX (PSJX)
 - TRAFFIC SIGNAL DETECTOR (SD)
- ECOMM COMMUNICATIONS**
- ABOVE-GROUND JOINING POST (PT #)
 - OPTICAL FIBRE JUNCTION BOX (PFB #)
 - OPTICAL FIBRE PT (POFP)
 - ST. L.T. BY T. T. T. MANHOLE (PTMP)
 - TELEPHONE BOX POINT (PTXB)
 - TELEPHONE SINGLE CONCRETE PT (PTSP)
 - TELEPHONE TRIPLE CONCRETE PT (PTTP)
 - TELEPHONE TWIN CONCRETE PT (PTTP)
 - OPTICAL FIBRE DIGITISED (OZ)
 - OPTICAL FIBRE UNDIGITISED (UOZ)
 - TELEPHONE LINE (TL)
 - TELEPHONE LINE DIGITISED (TZ)
 - TELEPHONE SWAMP (TS)
- EGAS**
- MANHOLE COVER (PGML)
 - METER (PGMR)
 - PIPELINE MARKER (PGMM)
 - PIPELINE MARKER - HIGH PRESSURE (PGMH)
 - VALVE BOX (PGVB)
 - VENT PIPE (PGVP)
 - VENT PIPE (PGVP)
 - ETHANE PIPELINE (EG)
 - HOUSE CONNECTION (HG)
 - MAN-DIGITISED (GZ)
 - MAN-HIGH PRESSURE PIPELINE (HIG)
 - MAN-LOW PRESSURE (LG)
- EWATER**
- AIR VALVE (PWAV)
 - EARTH TERMINAL (PWET)
 - FRESH WATER (PWFR)
 - HYDRANT (PWHT)
 - METER (PWMR)
 - STOP VALVE - RECYCLED (PRSV)
 - TAP (PWTS)
 - HOUSE CONNECTION (WV)
 - MAIN (WMM)
 - MAN-DIGITISED (WZ)
- EPDRN DRAINAGE**
- MANHOLE COVER (RPMH)
 - VENT PIPE (RSVP)
 - LAUNCH (RSU)
 - MAIN (RSM)
 - MAN-DIGITISED (RSZ)
- EPDRN DRAINAGE**
- DRAINAGE JUNCTION MANHOLE (PDMJ)
 - GULLY PIT POINT (PGPL)
 - INLET TOSUMP (PILT)
 - INVERT OF PIPE (PIPV)
 - TOP OF CONCRETE JUNCTION BOX (PJK)
 - DOWN PIPE (DP)
 - DRAINAGE AT JDP
 - DRAINAGE BOX (DX)
 - DRAINAGE PIPE UNSPECIFIED DIAMETER (UJ)
 - SIGN POST (PSN)
- ETREE**
- GATE COVER LD (PGAT)
 - UNIDENTIFIED POLE (PPGL)
 - UNIDENTIFIED SERVICE (PUSG)
- SUBQUALITY CLASSIFICATION**
- (A) QUALITY LEVEL A
 - (B) QUALITY LEVEL B
 - (C) QUALITY LEVEL C
 - (D) QUALITY LEVEL D
- UTILITY LEGEND**
- ELECTRICITY (AUSGRID)**
- AC ASBESTOS CEMENT GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
- GAS (EMENAS)**
- NB NATURAL BORE (CASTIRON MAN)
 - PE POLYETHYLENE
- RMSI**
- GI GALVANISED IRON
 - HD HEAVY DUTY
 - PVC POLYVINYL CHLORIDE
- TELSTRA OPTUS**
- ASBESTOS CEMENT
 - CONC. CONCRETE
 - EMT WIRE
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
- WATER (SYDNEY WATER)**
- CL. CASE IRON CEMENT LINED
 - DCL. DUCTILE IRON CEMENT LINED
 - GA GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - VIC VITREOUS CLAY
 - SCJBL STEEL CEMENT LINED INTERNAL BUTEN LINED
- ETRAFFIC**
- ELECTRICITY MAJOR TRANSMISSION LINE
 - ELECTRICITY SUBSTATION
 - STORMWATER CHANNEL

NOTES:

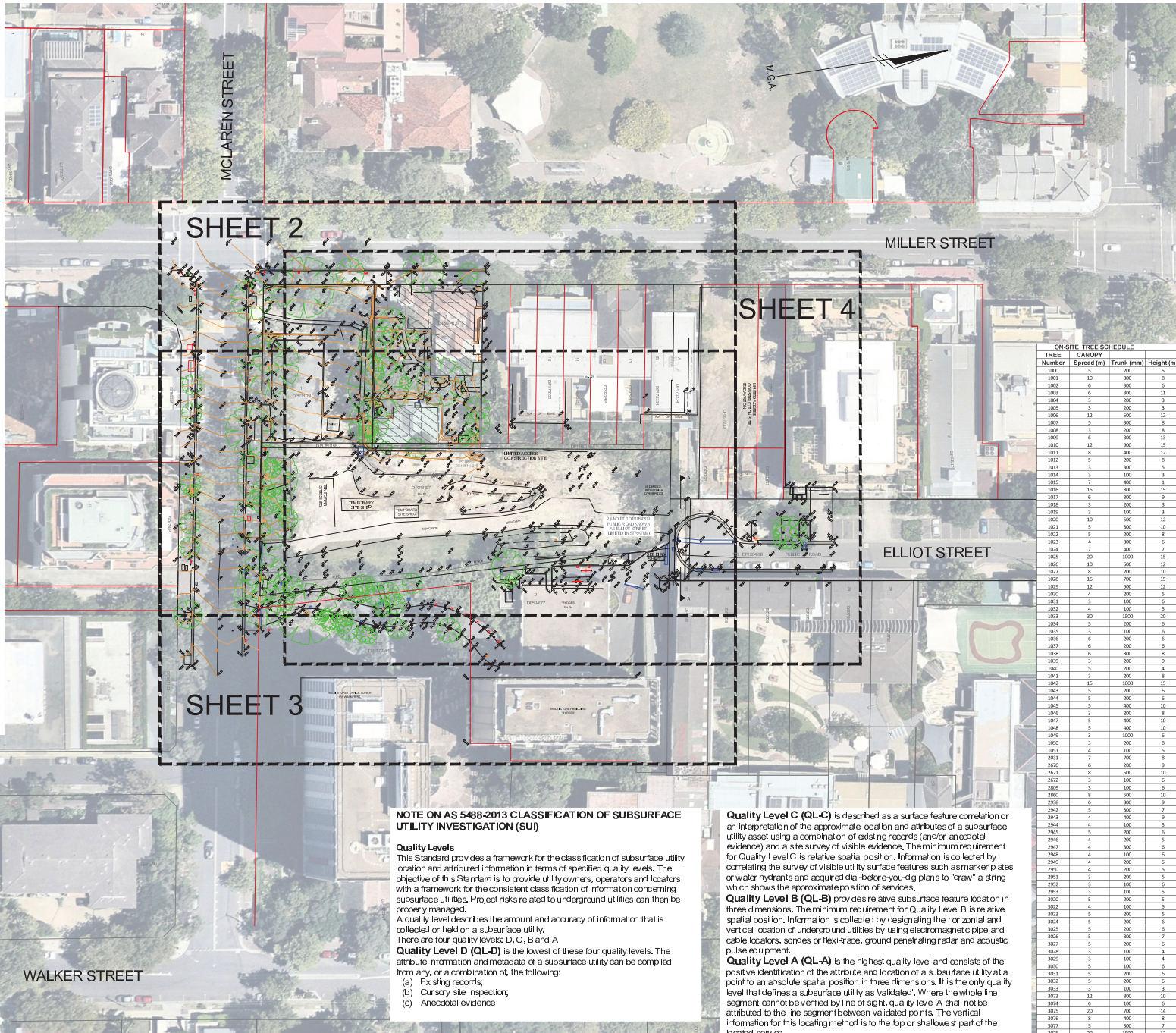
- THIS PLAN SHOWS A REPRESENTATION OF A 3D UTILITY MODEL (M\NLRSRT-RPS-SVC-SR-DWG-000026-VICTORIA CROSS_M\MLAREN_MILLER_B). THIS MODEL SHOULD BE VIEWED IN A CAD ENVIRONMENT TO INTERPRET THE 3D INFORMATION. THIS PLAN INCLUDES PR124856-85-VICTORIA CROSS_M\MLAREN_MILLER_DBYD_DESKTOP_SERVICES_B FIRST PRODUCED ON 13.09.2017.
- ANY ELECTRONIC FILE IS PROVIDED WITHOUT WARRANTY AND SHOULD BE USED ONLY IN CONJUNCTION WITH THE SUPPLIED PDF/PAPER COPY OF THIS PLAN.
- RPS UTILITY LOCATION USE DIAL BEFORE YOU DIG (DBYD) AS ONE SOURCE OF INFORMATION ONLY WHEN LOCATING UTILITIES.
- ALL GAS UTILITIES ARE CLASS QL-C UNLESS NOTED OTHERWISE OR SHOWN AS DIGITISED.
- UTILITY INFORMATION AND CONFIGURATION SUPPLIED FROM ASSET OWNERS (DBYD).
- SINGLE STRINGS MAY REPRESENT MULTIPLE CABLES, CONDUITS OR PIPES.
- ELECTRICITY CABLES ARE NOT NECESSARILY ENCLOSED IN CONDUITS AND ARE NOT NECESSARILY COVERED WITH MARKERS, TAPE OR OTHER INDICATORS OF THEIR PRESENCE.
- NOT ALL HOUSE CONNECTIONS HAVE BEEN LOCATED.
- IT REMAINS THE RESPONSIBILITY OF THE COMPANY AND/OR THE INDIVIDUAL CONDUCTING PHYSICAL WORKS TO ENSURE AN UP-TO-DATE VERSION OF DIAL BEFORE YOU DIG PLANS IS CONSULTED AND AVAILABLE ON SITE. PHYSICAL WORKS MAY INCLUDE, BUT NOT BE LIMITED TO, EXCAVATING, BORING (HORIZONTAL AND VERTICAL), AND DRILLING.
- ALL UTILITIES NEED TO BE POTHOLED TO VERIFY LOCATION AND DEPTH IS CORRECT.
- WHERE POSSIBLE IN THE FIELD, DEPTHS TO INDIVIDUAL SERVICES WERE OBTAINED AND RECORDED. THE DEPTH IS SHOWN AS TEXTURAL NOTATION. HENCE, THE ATTRIBUTE '0.5SD' INDICATES A DEPTH TO THE UTILITY OF 500mm.
- CONTOURS ARE AN INDICATION OF LANDFORM AND SHOULD NOT BE TAKEN IN PREFERENCE TO SPOT LEVELS SHOWN.
- CONTOUR INTERVAL, MAJOR 1m, MINOR 0.5m.

BOUNDARY NOTES

THE BOUNDARIES SHOWN (LAYER: BOUNDARY_TITLE_BOUNDARY) ARE BY FIELD SURVEY AND AS SHOWN IN PPN DP1231642 (UN-REGISTERED) AND ARE SUBJECT TO REGISTRATION AT LPI NSW. THE BOUNDARIES SHOWN (LAYER: E_BOUNDARY_TITLE) ARE ORIGINAL DIMENSIONS SHOWN ON SUBJECT PLANS DP536008 AND DP561413 AND ARE SUBJECT TO SURVEY.

THE BOUNDARIES SHOWN (LAYER: SACM) ARE DERIVED FROM THE STATE CADASTRAL DATABASE. THEY ARE INCLUDED ONLY FOR CONTEXT AND SHOULD NOT BE USED FOR ANY DESIGN OR PLANNING PURPOSES.

THERE ARE NO EASEMENTS AFFECTING EITHER LOT 1 ON DP536008 OR LOT 1 ON DP561413.



ON-SITE TREE SCHEDULE

Tree Number	Spread (m)	Trunk (mm)	Height (m)
1000	5	200	8
1001	10	300	8
1002	6	300	6
1003	6	300	11
1004	3	200	3
1005	3	200	3
1006	12	500	12
1007	5	300	8
1008	3	200	8
1009	6	300	11
1010	12	600	15
1011	4	400	12
1012	5	200	8
1013	1	200	5
1014	3	100	3
1015	7	400	1
1016	15	800	15
1017	6	300	9
1018	3	200	3
1019	3	100	3
1020	10	500	12
1021	5	300	10
1022	5	200	8
1023	4	300	6
1024	7	400	7
1025	20	1000	15
1026	6	200	10
1027	6	200	10
1028	16	700	15
1029	12	1200	12
1030	4	200	5
1031	3	100	6
1032	4	200	5
1033	30	1500	20
1034	4	200	6
1035	3	100	6
1036	6	200	6
1037	6	200	6
1038	6	300	8
1039	3	200	9
1040	3	200	9
1041	3	200	8
1042	15	1000	15
1043	5	200	6
1044	5	200	6
1045	5	200	6
1046	3	200	8
1047	5	400	10
1048	5	400	10
1049	3	1000	6
1050	3	200	8
1051	4	100	5
1052	7	700	8
1053	6	200	9
1054	8	500	10
1055	3	200	6
1056	3	100	6
1057	3	100	5
1058	3	100	5
1059	3	100	5
1060	3	100	5
1061	3	100	5
1062	3	100	5
1063	3	100	5
1064	3	100	5
1065	3	100	5
1066	3	100	5
1067	3	100	5
1068	3	100	5
1069	3	100	5
1070	3	100	5
1071	3	100	5
1072	3	100	5
1073	3	100	5
1074	3	100	5
1075	3	100	5
1076	3	100	5
1077	3	100	5
1078	3	100	5
1079	3	100	5
1080	3	100	5

NOTE ON AS 5888-2013 CLASSIFICATION OF SUBSURFACE UTILITY INVESTIGATION (SUI)

Quality Levels
This Standard provides a framework for the classification of subsurface utility location and attributed information in terms of specified quality levels. The objective of this Standard is to provide utility owners, operators and locators with a framework for the consistent classification of information concerning subsurface utilities. Project risks related to underground utilities can then be properly managed.

A quality level describes the amount and accuracy of information that is collected or held on a subsurface utility.

There are four quality levels: D, C, B and A

Quality Level D (QL-D) is the lowest of these four quality levels. The attribute information and metadata of a subsurface utility can be compiled from any, or a combination of, the following:

- Existing records;
- Cursory site inspection;
- Anecdotal evidence

Quality Level C (QL-C) is described as a surface feature correlation or an interpretation of the approximate location and attributes of a subsurface utility asset using a combination of existing records (and/or anecdotal evidence) and a site survey of visible evidence. The minimum requirement for Quality Level C is relative spatial position. Information is collected by correlating the survey of visible utility surface features such as marker plates or water hydrants and acquired data-before-you-dig plans to "draw" a string which shows the approximate position of services.

Quality Level B (QL-B) provides relative subsurface feature location in three dimensions. The minimum requirement for Quality Level B is relative spatial position. Information is collected by designating the horizontal and vertical location of underground utilities by using electromagnetic pipe and cable locators, sondes or flex-loc, ground penetrating radar and acoustic pulse equipment.

Quality Level A (QL-A) is the highest quality level and consists of the positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as validated. Where the whole line segment cannot be verified by line of sight, quality level A shall not be attributed to the line segment between validated points. The vertical information for this locating method is to the top or shallowest part of the located service.

DISCLAIMER:

THIS SURVEY MODEL INCLUDES INFORMATION DESCRIBING THE LOCATION OF SUBTERRANEAN FEATURES WHICH WERE PURPORTED TO EXIST AT THE TIME OF SURVEY.

THIS INFORMATION WAS COMPILED FROM A COMBINATION OF FIELD TECHNIQUES AND AVAILABLE DATA FROM COOPERATING UTILITY AUTHORITIES. WHILE ALL CARE HAS BEEN TAKEN IN THE PREPARATION OF THIS SURVEY MODEL, RPS CANNOT GUARANTEE THAT THE SURVEY MODEL IS WITHOUT FLAW OR OMISSIONS. RPS CANNOT TAKE RESPONSIBILITY FOR ANY AND WHATSOEVER LOSS OR DAMAGE OR OTHER CONSEQUENCES WHICH MAY ARISE FROM ANY PERSON RELYING ON ANYTHING STATED ON THIS PLAN.

IN PARTICULAR, IT IS RECOMMENDED THAT USERS SATISFY THEMSELVES AS TO THE LOCATION OF SUBTERRANEAN FEATURES SUCH AS UTILITIES WHICH MAY OR MAY NOT BE SHOWN ON THE PLAN.

NO.	DATE	REVISION DETAILS	DRAWN	CHK	APP
B	13.09.2017	ADDITIONAL DETAILS	JMU	LN	SFG
A	31.07.2017	INITIAL VERSION	JMU	LN	SFG

SCALE	COORDINATES	DATUM
HORIZ SCALE: 1:500	MGA	AHD
VERT SCALE: N/A @ A1	PM35731	PM35731

CLIENT	DATE OF SURVEY	DATE OF PLAN	DATE LAST SAVED	DATE APPROVED
Transport Roads & Maritime Services	APR 2017	31.07.2017	16.09.2017	31.07.2017

DRYING NO.	ISSUE NO.	ISSUE
NWLSRT-RPS-SVC-SR-DWG-000026.dwg	PR124856	B

DETAIL SURVEY - MILLER STREET & McLAREN STREET, NORTH SYDNEY

THIS IS A COLOURED PLAN. REPRODUCTION IN COLOUR ONLY.

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PUBLIC UTILITY LEGEND

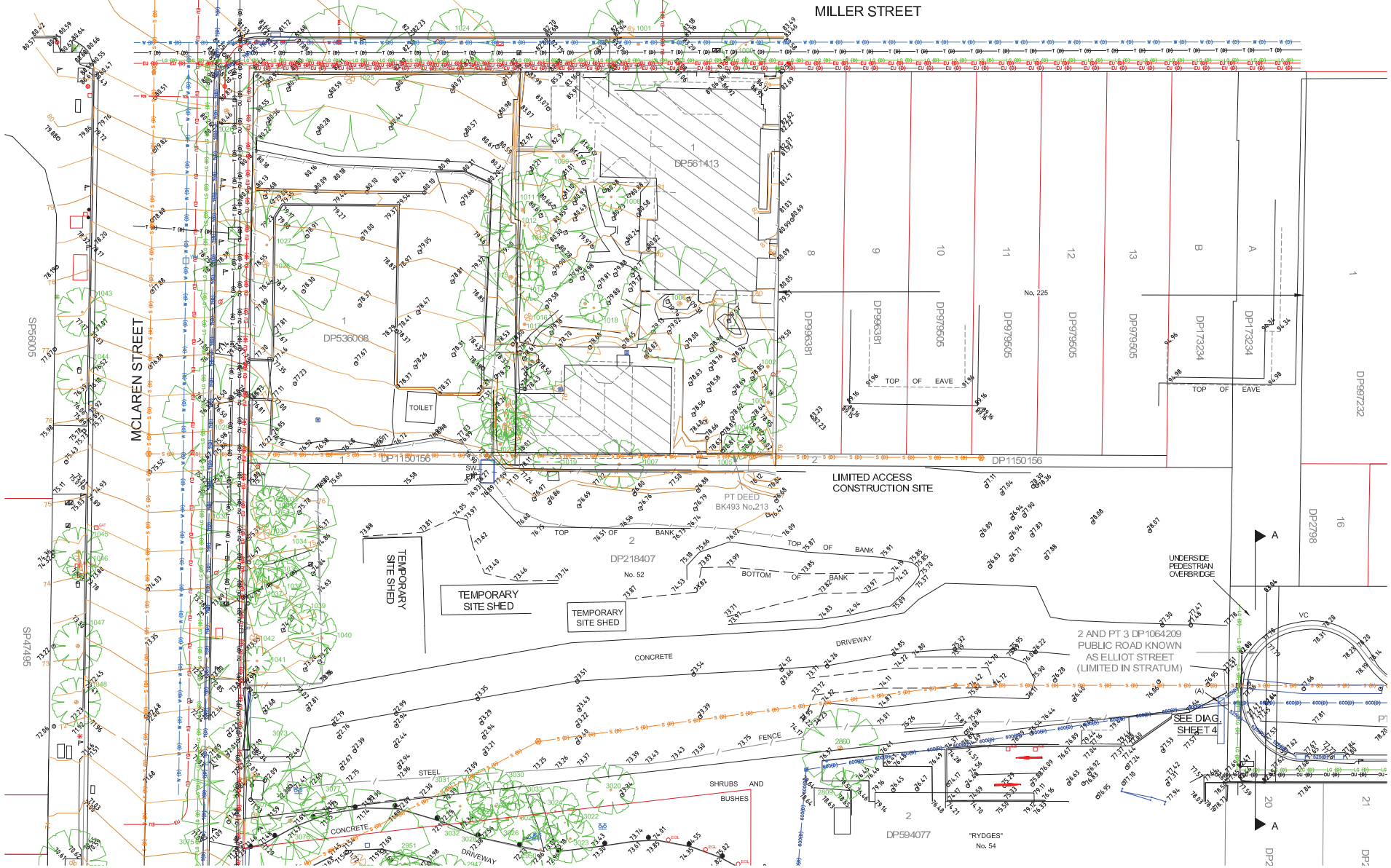
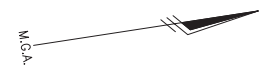
- ELELEC**
 - CABLE JUNCTION BOX (PEJB)
 - CABLE MANHOLE (PEJM)
 - DISTRIBUTION FUSE POINT
 - POLE - LIGHT (PL/L)
 - POLE - POWER (PP/L)
 - POLE - POWER & TRANSFORMER (PP/T)
 - POWER SERVICE PULL-UP - UNDERGROUND (PEUP)
 - TRANSFORMER CABINET CENTRE (PETC)
 - HOUSE CONNECTION (HY)
 - CONDUIT (EZ)
 - LINE-4NDIRGND (E4)
 - LINE-4NDIRGND (E4)
- ETCS**
 - TRAFFIC CONTROL SIGNAL (PS/L)
 - TRAFFIC SIGNAL CONTROLLER (PS/C)
 - TRAFFIC SIGNAL DETECTOR (PS/D)
 - TRAFFIC SIGNAL JUNCTION BOX (PS/J)
 - TRAFFIC SIGNAL DETECTOR (SD)
- ETCOMS COMMUNICATIONS**
 - ABOVE-GROUND JOINING POST (PT #1)
 - OPTICAL FIBRE JUNCTION BOX (PCE#)
 - OPTICAL FIBRE PT (POFP)
 - ST/LT/PT/TT/TMAN PT (PT#)
 - TELEPHONE BOX POINT (PT#B)
 - TELEPHONE SINGLE CONCRETE PT (PTSP)
 - TELEPHONE TRIPLE CONCRETE PT (PTTP)
 - TELEPHONE TWIN CONCRETE PT (PTTP)
 - OPTICAL FIBRE-EXPOSED (OZ)
 - OPTICAL FIBRE-UNDERGROUND (UOZ)
 - TELEPHONE LINE (TL)
 - TELEPHONE LINE-EXPOSED (TZ)
 - TELEPHONE SUMP (TS)
- ETGAS**
 - MANHOLE COVER (PGH)
 - METER (PGM)
 - PIPELINE MARKER (PGM)
 - PIPELINE MARKER -HIGH PRESSURE (PGHM)
 - VALVE BOX (PGV)
 - VENT PIPE (PGV)
 - ETHANE PIPELINE (EG)
 - HOUSE CONNECTION (HG)
 - MAN-EXPOSED (EZ)
 - MAN-HIGH PRESSURE PIPELINE (HIG)
 - MAN-LOW PRESSURE (LG)
- ETWATER**
 - AIR VALVE (PVA)
 - EARTH TERMINAL (PVE)
 - FRESHWATER (PWF)
 - HYDRANT (PWH)
 - METER (PM)
 - STOP VALVE - RECYCLED (PRSV)
 - TAP (PT)
 - HOUSE CONNECTION (HW)
 - MAIN (SM)
 - MAN-EXPOSED (EZ)
- ETRAIN EXISTING**
 - MANHOLE COVER (RHM)
 - VENT PIPE (RSV)
 - LAMPPIECE (RSU)
 - MAIN (SM)
 - MAN-EXPOSED (EZ)
- ETRAIN EXISTING**
 - DRAINAGE JUNCTION MANHOLE (PJUM)
 - GULLY PIT POINT (PGUL)
 - INLET TOSUM (PIT)
 - INVERT OF PIPE (PIPV)
 - TOP OF CONCRETE JUNCTION BOX (PBK)
 - DOWN PIPE
 - DRAINAGE PIT (DP)
 - DRAINAGE BOX BOX
 - DRAINAGE PIPE UNSPECIFIED DIAMETER (UW)
- ETRAFFIC**
 - TRAFFIC SIGN POST (PSN)
- ETRAFFIC**
 - GATE COVER LD (PGAT)
 - UNIDENTIFIED POLE (PP/L)
 - UNIDENTIFIED SERVICE (PS/S)
 - UNIDENTIFIED SERVICE (UP)
- QUALITY CLASSIFICATION**
 - QUALITY LEVEL A
 - QUALITY LEVEL B
 - QUALITY LEVEL C
 - QUALITY LEVEL D
- UTILITY LEGEND**
 - ELECTRICITY (AUSGRD):
 - AC ASBESTOS CEMENT
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - GAS (EMENAS):
 - NE NATURAL BORE (CASTIRON MAN)
 - PE POLYETHYLENE
 - RMS:
 - GI GALVANISED IRON
 - HD HEAVY DUTY
 - PVC POLYVINYL CHLORIDE
 - TELSTRA OPTUS:
 - AC ASBESTOS CEMENT
 - CONC. CONCRETE
 - EMT EMIWABRE
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - WATER (SUNNEY WATER):
 - CLD CAST IRON CEMENT LINED
 - DCL DUCTILE IRON CEMENT LINED
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - VC VITRIFIED CLAY
 - SCJBL STEEL CEMENT LINED INTERNAL BITUMEN LINED

DISCLAIMER:

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NO.	DATE	REVISION DETAILS	DRAWN	CHK	APP
B	13.09.2017	ADDITIONAL DETAILS	JMU	LN	SFG
A	31.07.2017	INITIAL VERSION	JMU	LN	SFG

HORIZ. SCALE	VERT. SCALE	NOTES
1:200	N/A @ A1	
COORDINATES: MGA	DATUM: AHD	
PM35731	PM35731	
SCALE IN METRES AT ORIGINAL REDUCTION RATIO		

CLIENT	PROJECT	TITLE
NSW Transport Roads & Maritime Services	DETAIL SURVEY - MILLER STREET & MCLAREN STREET, NORTH SYDNEY	

DATE OF SURVEY	DATE OF PLAN	DATE LAST SAVED	DATE APPROVED
APR 2017	31.07.2017	16.09.2017	31.07.2017

PROJECT NO.	SHEET	OF	TOTAL SHEETS
PR124856	4		A1

- PUBLIC UTILITY LEGEND**
- ELEEC**
- CABLE JUNCTION BOX (PEUB)
 - CABLE MANHOLE (PEUM)
 - DISTRIBUTION FUSE POINT
 - POLE - LIGHT (PL/L)
 - POLE - POWER (PP/L)
 - POLE - POWER & TRANSFORMER (PP/P)
 - POLE - SERVICE ROLLER - UNDERGROUND (PEUP)
 - TRANSFORMER CABINET CENTRE (PETC)
 - HOUSE CONNECTION (HY)
 - CONDUIT (ED)
 - LINE-CONTROLLED (EZ)
 - LINE-4/0DRGRD (EU)
- ETCS**
- TRAFFIC CONTROL SIGNAL (PS/L)
 - TRAFFIC SIGNAL CONTROLLER (PS/C)
 - TRAFFIC SIGNAL DETECTOR (PS/D)
 - TRAFFIC SIGNAL JUNCTION BOX (PS/J)
 - TRAFFIC SIGNAL DETECTOR (SD)
- FOUNDS/COMMISSIONS**
- ABOVE-GROUND JOINTING POST (PT #1)
 - OPTICAL FIBRE JUNCTION BOX (PF #1)
 - OPTICAL FIBRE PIT (POFP)
 - ST/1.17M BY 1.17M MAN PIT (PTMP)
 - TELEPHONE BOX POINT (PTBX)
 - TELEPHONE SINGLE CONCRETE PIT (PTSP)
 - TELEPHONE TRIPLE CONCRETE PIT (PTTP)
 - OPTICAL FIBRE-DIGITISED (OZ)
 - OPTICAL FIBRE-UNDERGROUND (UOZ)
 - TELEPHONE LINE (TL)
 - TELEPHONE LINE-DIGITISED (TZ)
 - TELEPHONE SUMP (TS)
- EGAS**
- MANHOLE COVER (PGH)
 - METER (PGMR)
 - PIPELINE MARKER (PGM)
 - PIPELINE MARKER -HIGH PRESSURE (PGHM)
 - VALVE BOX (PGVB)
 - VENT PIPE (PGV)
 - ETHANE PIPELINE (EG)
 - HOUSE CONNECTION (EG)
 - MAN-DIGITISED GZ
 - MAN-HIGH PRESSURE PIPELINE (HIG)
 - MAN-LOW PRESSURE (LG)
- EWATER**
- AIR VALVE (PWAV)
 - EARTH TERMINAL (PWET)
 - RESERVOIR (PWRS)
 - HYDRANT (PWHT)
 - METER (PWMR)
 - STOP VALVE - RECYCLED (PRSV)
 - TAP (PWTS)
 - HOUSE CONNECTION (WV)
 - MAIN SUMP
 - MAN-DIGITISED (WZ)
- FLOWER**
- MANHOLE COVER (RMH)
 - VENT PIPE (RSV)
 - LAMPPILE (RSU)
 - MAIN SUMP
 - MAN-DIGITISED (SZ)
- FDRAIN/STORMWATER**
- DRAINAGE JUNCTION MANHOLE (PJUM)
 - GULLY PIT POINT (PSUL)
 - INLET SUMP (PILT)
 - INVERT OF PIPE (PIPV)
 - TOP OF CONCRETE JUNCTION BOX (PCK)
 - DOWN PIPE
 - DRAINAGE PIT (DP)
 - DRAINAGE BOX (DX)
 - DRAINAGE PIPE UNSPECIFIED DIAMETER (UW)
- ECH/VEGETATION**
- SIGN POST (PSN)
- EMSG**
- GATE COVER LD (PGAT)
 - UNIDENTIFIED POLE (PP/L)
 - UNIDENTIFIED SERVICE (PP/S)
 - UNIDENTIFIED SERVICE (UP)
- SOIL QUALITY CLASSIFICATION**
- (A) QUALITY LEVEL A
 - (B) QUALITY LEVEL B
 - (C) QUALITY LEVEL C
 - (D) QUALITY LEVEL D
- UTILITY LEGEND**
- ELECTRICITY (AUSGRD):**
- AC ASBESTOS CEMENT
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
- GAS (EMENAS):**
- NB NATURAL BORE (CASTIRON MAN)
 - PE POLYETHYLENE
- RMS:**
- GI GALVANISED IRON
 - HD HEAVY DUTY
 - PVC POLYVINYL CHLORIDE
- TELSTRA OPTIS:**
- AC ASBESTOS CEMENT
 - CONC CONCRETE
 - EW ENAMEL WIRE
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
- WATER (VICNEY WATER):**
- CLD CAST IRON CEMENT LINED
 - DCL DUCTILE IRON CEMENT LINED
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - VC VITRIFIED CLAY
 - SCJBL STEEL CEMENT LINED INTERNAL BITUMEN LINED
- LEGEND**
- ELECTRICITY MAJOR TRANSMISSION LINE
 - ELECTRICITY SUBSTATION
 - STORMWATER CHANNEL



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REVISIONS B 13.09.2017 ADDITIONAL DETAILS JMU LN SFG A 31.07.2017 INITIAL VERSION JMU LN SFG		HORIZ. SCALE 1:200 COORDINATES PM35731	VERT. SCALE N/A @ A1 DATUM AHD SCALE IN METRES AT ORIGINAL REDUCTION RATIO	NOTES	CLIENT 	TITLE DETAIL SURVEY - MILLER STREET & MCLAREN STREET, NORTH SYDNEY	JOB NO. PR124856	ISSUE B
No. DATE REVISION DETAILS DRAWN: JMU CHK: SFG		SCALE IN METRES AT ORIGINAL REDUCTION RATIO		DATE OF SURVEY APR 2017 DATE OF PLAN 31.07.2017 DATE LAST SAVED 16.09.2017 DATE APPROVED 31.07.2017	DRAWING NO. NWLRSRT-RPS-SVC-SR-DWG-000026.dwg	SHEET 3 of 4 SHEETS	SIZE A1	

PUBLIC UTILITY LEGEND

- ELECTRICITY**
 - CABLE JUNCTION BOX (PEUB)
 - CABLE MANHOLE (PEUM)
 - DISTRIBUTION FUSE POINT
 - POLE - LIGHT (PL/L)
 - POLE - POWER (PP/L)
 - POLE - POWER & TRANSFORMER (PP/LP)
 - POLE - POWER & TRANSFORMER (PP/TR)
 - POWER SERVICE RIGUP - UNDERGROUND (PEUP)
 - TRANSFORMER CABINET CENTRE (PETC)
 - HOUSE CONNECTION (HY)
 - CONDUIT (ED)
 - LINE-CONDUIT (EZ)
 - LINE-4IN-DIGR-DUND (EU)
- TRAFFIC SIGNALS**
 - TRAFFIC CONTROL SIGNAL (PS/L)
 - TRAFFIC SIGNAL CONTROLLER (PS/LC)
 - TRAFFIC SIGNAL DETECTOR (PS/D)
 - TRAFFIC SIGNAL JUNCTION BOX (PS/J)
 - TRAFFIC SIGNAL DETECTOR (SD)
- FOUNDS/COMMUNICATIONS**
 - ABOVE-GROUND JOINING POST (PT #1)
 - OPTICAL FIBRE JUNCTION BOX (PCF #)
 - OPTICAL FIBRE PIT (POFP)
 - ST/1.17M BY 1.17M MAIN PIT (PTMP)
 - TELEPHONE BOX POINT (PTXB)
 - TELEPHONE SINGLE CONCRETE PIT (PTSP)
 - TELEPHONE TRIPLE CONCRETE PIT (PTTP)
 - TELEPHONE TWIN CONCRETE PIT (PTTT)
 - OPTICAL FIBRE-CONDUIT (OZ)
 - OPTICAL FIBRE-UNDERGROUND (UOZ)
 - TELEPHONE LINE (TN)
 - TELEPHONE LINE-CONDUIT (TZ)
 - TELEPHONE SUMP (TS)
- EGGS**
 - MANHOLE COVER (PGHL)
 - METER (PGMR)
 - PIPELINE MARKER (PGDM)
 - PIPELINE MARKER - HIGH PRESSURE (PGHM)
 - VALVE BOX (PGVB)
 - VENT PIPE (PGVP)
 - ETHANE PIPELINE (EG)
 - HOUSE CONNECTION (HG)
 - MAN-HIGH PRESSURE PIPELINE (HIG)
 - MAN-LOW PRESSURE (LG)
- VALVES**
 - AIR VALVE (PVAV)
 - EARTH TERMINAL (PVET)
 - RESILIENT (PVRE)
 - HYDRANT (PVHY)
 - METER (PVMR)
 - STOP VALVE - RECYCLED (PRSV)
 - TAP (PVTP)
 - HOUSE CONNECTION (VY)
 - MAIN (VZ)
 - MAN-CONDUIT (VZ)
- SEWER**
 - MANHOLE COVER (RSMH)
 - VENT PIPE (RSVP)
 - LAMPHOLE (RSU)
 - MAIN (SZ)
 - MAN-CONDUIT (SZ)
- DRAINAGE/STORMWATER**
 - DRAINAGE JUNCTION MANHOLE (PJUM)
 - GULLY PIT POINT (PGUL)
 - INLET SUMP (PIS)
 - INVERT OF PIPE (PIPV)
 - TOP OF CONCRETE JUNCTION BOX (PBK)
 - DOWN PIPE
 - DRAINAGE PIT (DP)
 - DRAINAGE BOX (DB)
 - DRAINAGE PIPE UNSPECIFIED DIAMETER (UW)
- ECH/UTILITIES**
 - SIGN POST (PSN)
- EMS**
 - GATE COVER LD (PGAT)
 - UNIDENTIFIED POLE (PPG)
 - UNIDENTIFIED SERVICE (PUSG)
- SUBSOIL QUALITY CLASSIFICATION**
 - (A) QUALITY LEVEL A
 - (B) QUALITY LEVEL B
 - (C) QUALITY LEVEL C
 - (D) QUALITY LEVEL D
- UTILITY LEGEND**
 - ELECTRICITY (AUSGRID):**
 - AC ASBESTOS CEMENT
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - GAS (EMENAS):**
 - NE NATURAL BORE (CASTIRON MAN)
 - PE POLYETHYLENE
 - RMS:**
 - GI GALVANISED IRON
 - HD HEAVY DUTY
 - PVC POLYVINYL CHLORIDE
 - TELSTRA OPTIS:**
 - AC ASBESTOS CEMENT
 - CONC CONCRETE
 - ENH ENHANCED
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - WATER (SUDNEY WATER):**
 - CLD CAST IRON CEMENT LINED
 - DCL DUCTILE IRON CEMENT LINED
 - GI GALVANISED IRON
 - PVC POLYVINYL CHLORIDE
 - VITRIFIED CLAY
 - SCJBL STEEL CEMENT LINED INTERNAL BITUMEN LINED
- SYMBOLS:**
 - Electricity MAJOR TRANSMISSION LINE
 - Electricity SUBSTATION
 - STORMWATER CHANNEL

MILLER STREET

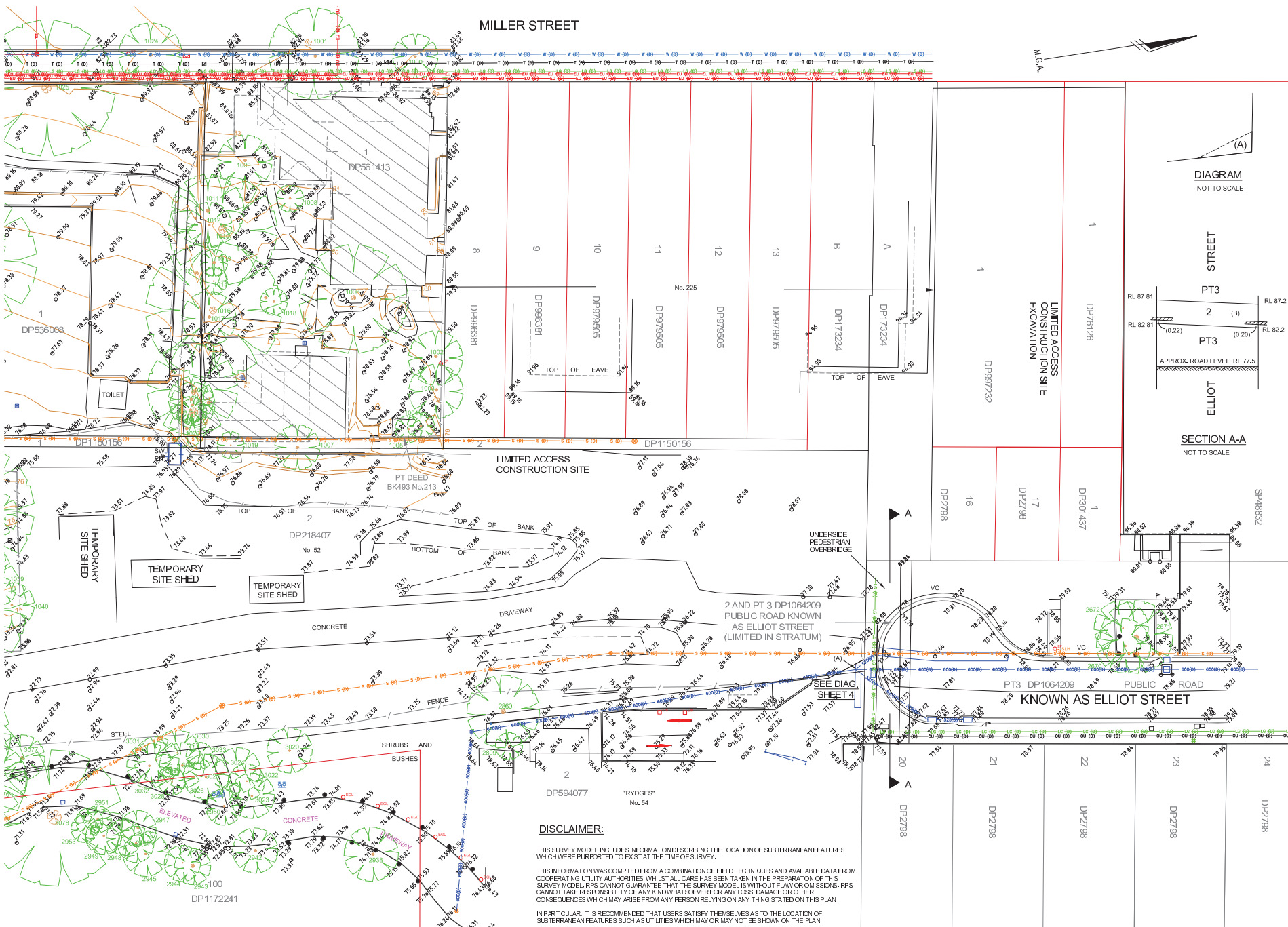
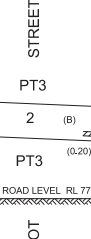


DIAGRAM NOT TO SCALE



SECTION A-A NOT TO SCALE

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(A) RIGHT OF CARRIAGEWAY (VIDE S99(83))
 (B) LEASE OVERLOT 2 DP 10764209 (VIDE AA880754)

NO.	DATE	REVISION DETAILS	DRAWN	CHEK	APP
B	13.09.2017	ADDITIONAL DETAILS	JMU	LN	SFG
A	31.07.2017	INITIAL VERSION	JMU	LN	SFG

SCALE	COORDINATES	DATUM
HORZ. SCALE: 1:200	MGA	AHD
VERT. SCALE: N/A @ A1	PM35731	PM35731

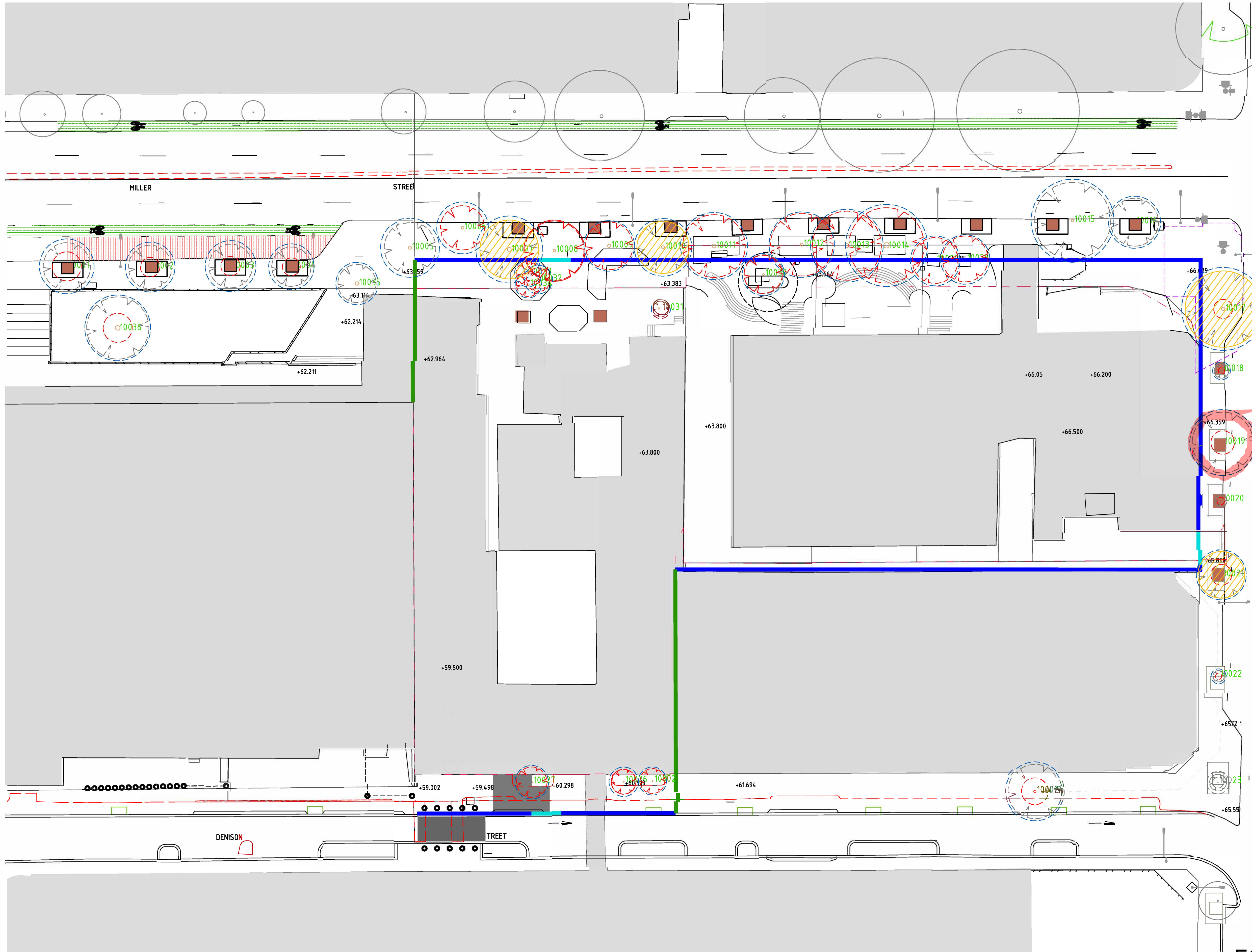
CLIENT	PROJECT	DATE OF SURVEY
Transport Roads & Maritime Services	RPS	APR 2017
DRAWN	JMU	31.07.2017
CHECKED	LN	16.09.2017
APPROVED	SFG	31.07.2017

DETAIL SURVEY - MILLER STREET & McLAREN STREET, NORTH SYDNEY

JOB NO.	SHEET
PR124856	B

Appendix E – Victoria Cross South

- Appendix E1 – Tree Impact Assessment Plan
- Appendix E2 - Arborist Tree Survey Report(s)
- Appendix E3 - Site Survey Drawing(s)
- Appendix E4 – Arborist Tree Survey Report (Utilities)



NOTE: THIS TREE IMPACT ASSESSMENT DOES NOT ACCOUNT FOR ANY GROUND DISTURBANCE INCLUDING EXCAVATION, TRENCHING, OR COMPACTION WITHIN THE TREE PROTECTION ZONES OF THE TREES.

LEGEND	
SYMBOL	DESCRIPTION
GENERAL	
	A CLASS HOARDING
	B CLASS HOARDING
	VEHICULAR ACCESS GATE
	SHADE CLOTH TO ATF FENCE
	SHADE CLOTH TO EXISTING FENCE
TREES	
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	EXISTING TREE TO PRUNED
	TREE PROTECTION ZONE
	STRUCTURAL ROOT ZONE

NOTE: TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR; ARBORIST TREE SURVEY INFORMATION; AND TREE SURVEY LOCATION INFORMATION. ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS. DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES. FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

FOR INFORMATION ONLY
SYDNEY METRO CITY & SOUTHWEST

VICTORIA CROSS SITE 2
 URBAN DESIGN
 TREE IMPACT ASSESSMENT PLAN

STATUS: FOR INFORMATION ONLY | SHEET 1 OF 1 | ©
 NWRL Dwg No. NWRLSRT-NWR-SVC-UD-DWG-000001 | NWRL REV. B

REV.	BY	DATE	DESCRIPTION	APPD.
B		26.02.18	UPDATED TREE IMPACTS	
A		19.02.18	UPDATED TREE 10009	
			PREVIOUS REVISION AS DWG NWRLSRT-PBA-SVC-UD-DWG-834221	

Co-ordinate System: MGA Zone 56 | Height Datum: A.H.D. | This sheet may be prepared using colour and may be incomplete if copied

SCALES

NOTE: Do not scale from this drawing.

CLIENT

The information shown on this drawing is for the purposes of the North West Rail Link (NWRL) Project only. No warranty is given or implied as to its suitability for any other purpose. The Service Providers accept no liability arising from the use of this drawing and the information shown thereon for any purpose other than the North West Rail Link (NWRL) Project.

SERVICE PROVIDERS	DESIGN
	DRAWN _____
	DESIGNED _____
	DRG CHECK _____
	DESIGN CHECK _____
	APPROVED _____

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1	Platanus orientalis <i>Oriental plane</i>	M	18	14	478	805	5.7	3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, suppressed east elevation, trunk wound compartmentalised, crown overhang across adjoining road 6m clearance above road pavement 7.2 m.	2a
						Area m2	102	28			
2	Platanus acerifolia <i>London plane</i>	M	15.5	10.7	470	650	5.6	2.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 6.3 m.	2a
						Area m2	99	25			
3	Platanus orientalis <i>Oriental plane</i>	M	11	9.3	512	1200	6.1	3.6	2	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth, no visible evidence of pests or disease, crown overhang across adjoining road 3m. Clearance above road pavement 6,25 m.	2e
						Area m2	117	41			
4	Platanus acerifolia <i>London plane</i>	M	8	9	310	520	3.7	2.5	2	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, minorsmall branch and twig die back, epicormic growth, structure & form modified by past pruning	2e
						Area m2	43	20			
5	Platanus acerifolia <i>London plane</i>	M	17	10.5	397	685	4.8	2.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back	2a
						Area m2	72	25			
6	Platanus acerifolia <i>London plane</i>	M	15.5	9	321	655	3.9	2.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning,, crown overhang across adjoining road 3m. Clearance above road pavement 6.5 m.	2a
						Area m2	48	25			
7	Platanus acerifolia <i>London plane</i>	M	16	12.5	595	800	7.1	3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, tree has lean towards north	2a
						Area m2	158	28			
8	Platanus acerifolia <i>London plane</i>	M	13.5	13	420	612	5	2.7	2	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, canopy dieback and hazardous deadwood, tree has lean towards north.	2a
						Area m2	79	23			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
9	Platanus acerifolia <i>London plane</i>	M	16	14	486	730	5.8	2.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning,, crown overhang across adjoining road 4.5 m. Clearance above road pavement 5.6m.	2a
						Area m2	106	26			
10	Platanus acerifolia <i>London plane</i>	M	16	15	475	719	5.7	2.9	2	Deciduous tree introduced to the site, good to fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease, tree modified by past pruning, crown overhang across adjoining road 2.5 m. Clearance above road pavement 7 m.	2a
						Area m2	102	26			
11	Platanus acerifolia <i>London plane</i>	M	17	17	555	805	6.7	3	2	Deciduous tree introduced to the site, tree growing in raised planter, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease, modified by past pruning,, crown overhang across adjoining road 6 m. Clearance above road pavement 6.4 m.	2a
						Area m2	141	28			
12	Platanus acerifolia <i>London plane</i>	M	16.5	15	448	525	5.4	2.5	2	Deciduous tree introduced to the site, growing within raised planter, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease,modified by past pruning, crown overhang across adjoining road 7 m. Clearance above road pavement 6.2 m.	2a
						Area m2	92	20			
13	Platanus acerifolia <i>London plane</i>	M	17.5	15	574	611	6.9	2.7	2	Deciduous tree introduced to the site, growing within raised planter, good condition, the species is not rare or endangered, structure & form modified by past pruning, tree has lean towards north, poor form., crown overhang across adjoining road 7 m. Clearance above road pavement 6.5m	2e
						Area m2	150	23			
14	Platanus acerifolia <i>London plane</i>	M	14	16.5	665	765	8	3	2	Deciduous tree introduced to the site, growing within raised planter,good condition, the species is not rare or endangered, structure & form modified by past pruning, no visible evidence of pests or disease, tree has lean towards north west,, crown overhang across adjoining road 7 m. Clearance above road pavement 5.8 m.	2a
						Area m2	201	28			
15	Platanus acerifolia <i>London plane</i>	M	17	12	366	710	4.4	2.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, crown overhang across adjoining road 7.5m. Clearance above road pavement 5 m.	2a
						Area m2	61	26			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
16	Platanus acerifolia <i>London plane</i>	M	14.5	11.5	308	517	3.7	2.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning,, crown overhang across adjoining road 6 m. Clearance above road pavement 5.4 m.	2a
						Area m2	43	20			
17	Platanus acerifolia <i>London plane</i>	M	14.5	13	448	625	5.4	2.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, tree has lean towards west,, crown overhang across adjoining road 6 m. Clearance above road pavement 4.9 m.	2a
						Area m2	92	23			
18	Platanus acerifolia <i>London plane</i>	Y	4	2.5	39	60	0.5	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	1	7			
19	Platanus acerifolia <i>London plane</i>	M	15	10.8	330	615	4	2.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, trunk wound, modified by past pruning, tree stressed, decline in vigour, tree has e lean to north, crown overhang across adjoining road 7.5 m. Clearance above road pavement 5.6 m.	2a
						Area m2	50	23			
20	Platanus acerifolia <i>London plane</i>	Y	4	3	44	69	0.5	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	1	7			
21	Platanus acerifolia <i>London plane</i>	M	14.5	11	377	775	4.5	3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease,, crown overhang across adjoining road 6.5 m. Clearance above road pavement 6 m.	2a
						Area m2	64	28			
22	Platanus acerifolia <i>London plane</i>	Y	3	3	30	44	0.4	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species,	2a
						Area m2	1	7			
23	Platanus acerifolia <i>London plane</i>	Y	5	2.5	49	89	0.6	1.5	3	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	1	7			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
24	Platanus acerifolia <i>London plane</i>	M	9.5	7.8	284	463	3.4	2.4	2	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth,, crown overhang across adjoining road 3.6 m. Clearance above road pavement 3.6m .	2e
						Area m2	36	18			
25	Populus euramericana x nigra <i>spp Crows Nest poplar tree</i>	M	10	4	124	177	1.5	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, crown overhang across adjoining road 1 m. Clearance above road pavement 2.5 m.	2a
						Area m2	7	8			
26	Populus euramericana x nigra <i>spp Crows Nest poplar tree</i>	M	10	4	132	190	1.6	1.6	2	Deciduous tree tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species,, crown overhang across adjoining road 1 m. Clearance above road pavement 2.5 m.	2a
						Area m2	8	8			
27	Populus euramericana x nigra <i>spp Crows Nest poplar tree</i>	M	10	6	200	217	2.4	1.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, crown overhang across adjoining road 1 m. Clearance above road pavement 3 m.	2a
						Area m2	18	9			
28	Ulmus procera <i>English elm</i>	M	8	11	260	290	3.1	2	3	Deciduous tree introduced to the site, growing within raised planter, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, canopy dieback and hazardous deadwood, small branch and twig die back, epicormic growth, poor form.	3a
						Area m2	30	13			
29	Ulmus parvifolia <i>Chinese elm</i>	M	7	10	170	225	2	1.8	3	Deciduous tree introduced to the site, growing in raised planter, average to poor condition, the species is not rare or endangered, small branch and twig die back, epicormic growth, structure & form modified by past pruning, poor form.	3a
						Area m2	13	10			
30	Ulmus parvifolia <i>Chinese elm</i>	M	12	8.5	147	377	3.4	2.2	3	Deciduous tree introduced to the site, growing within raised planter, average condition, the species is not rare or endangered, co-dominant stems, strong union, epicormic growth, structure & form modified by past pruning, tree stressed, decline in vigour	4b
					243	Area m2	36	15			
31	Syagrus romanzoffiana <i>Cocos palm</i>	M	10	4	195	465	2.3	2.4	2	Palm species introduced to the site, growing within raised planter good condition, the species is not rare or endangered, structure and form typical of the species, invasive species.	2c
						Area m2	17	18			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
32	Syagrus romanzoffiana <i>Cocos palm</i>	M	13	4	340	540	4.1	2.6	2	Palm species introduced to the site, growing within raised planter, good condition, the species is not rare or endangered, structure and form typical of the species, invasive species.	2c
						Area m2	53	21			
33	Syagrus romanzoffiana <i>Cocos palm</i>	M	13.5	5	280	530	3.4	2.5	2	Palm species introduced to the site, growing within raised planter, good condition, the species is not rare or endangered, structure and form typical of the species, invasive species.	2c
						Area m2	36	20			
34	Syagrus romanzoffiana <i>Cocos palm</i>	M	13	4.5	288	425	3.5	2.3	2	Palm species introduced to the site, growing within raised planter, good condition, the species is not rare or endangered, structure and form typical of the species, invasive species	2a
						Area m2	38	17			
35	Platanus orientalis <i>Oriental plane</i>	M	17	15.5	490	790	5.9	3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, epicormic growth, no visible evidence of pests or disease, modified by past pruning	2a
						Area m2	109	28			
36	Platanus orientalis <i>Oriental plane</i>	M	18	13.8	595	700	7.1	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, suppressed east elevation, no visible evidence of pests or disease, modified by past pruning	2a
						Area m2	158	25			
37	Platanus orientalis <i>Oriental plane</i>	M	19	20	640	900	7.7	3.2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, suppressed east elevation, no visible evidence of pests or disease, modified by past pruning	2a
						Area m2	186	32			
38	Platanus orientalis <i>Oriental plane</i>	M	21	15.5	325	1400	9.6	3.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, suppressed, structure & form modified by past pruning, crown overhang across adjoining road 6 m. Clearance above road pavement 6.8m.	
					730	Area m2	290	45			

NOTES

- 1.0 ELECTRONIC FILE IS PROVIDED WITHOUT WARRANTY AND SHOULD BE USED ONLY IN CONJUNCTION WITH THE SUPPLIED PDF/PAPER COPY OF THIS PLAN.
- 2.0 BOUNDARIES
THE POSITION OF THE BOUNDARIES ON THE PLAN AND WITHIN THE CAD FILE ARE DERIVED FROM SURVEY ACCURATE CADASTRAL MODELING UNDERTAKEN BY RPS (APRIL 2015) AND BASED ON THE NSW LPI DIGITAL CADASTRAL DATABASE. NO FIELD INVESTIGATIONS HAVE BEEN CARRIED OUT TO CONFIRM THE LOCATION OR DIMENSIONS OF THE MODELING INVESTIGATION.
- 3.0 LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD) BASED ON THE PROJECT PRIMARY CONTROL TRAVERSE. USING PM 74608 WITH RL OF 81.940m LOCATED AT THE INTERSECTION MCLAREN ST AND MILLER ST.
- 4.0 ORIGIN OF CO-ORDINATES PM 74608 WITH MGA CO-ORDINATE VALUES OF E: 334144.588 N: 6254721.064



REVISIONS			NOTES		
No.	DATE	REVISION DETAILS	DRAWN	CHK	APP
A	30.03.2017	INITIAL VERSION	JMJ	ML	SFG

HORIZ. SCALE: 1:400
 VERT. SCALE: N/A @ A1
 COORDINATES: MGA DATUM: AHD
 ORIGIN: PM74608 ORIGIN: PM74608

SCALE IN METRES AT ORIGINAL REDUCTION RATIO

0 4 8 16 24

CLIENT: **NSW** Government
Transport for NSW

SURVEY: DATE OF SURVEY: 23.03.2017
 DRAWN: JMJ DATE OF PLAN: 30.03.2017
 CHECKED: ML DATE LAST SAVED: 30.03.2017
 APPROVED: SFG DATE APPROVED: 30.03.2017

TITLE: **SYDNEY METRO CITY AND SOUTH WEST**
Tree Survey - Victoria Cross Station

DRAWING No: NWRLSRT-RPS-SVC-SR-DWG-000023.dwg

JOB No: **PR124856**
 www.dial100beforeyoudig.com.au
DIAL100
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SHEET 1 OF 2 SHEETS SIZE A1

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
10039	<i>Platanus x acerifolio</i>	SM	9	6	230	295	2.4	2	2	Council Street tree in hard pavement. Fair to good condition. Planted within the last	2a
	London Plane Tree										
10040	<i>Platanus x acerifolio</i>	SM	9	6	170	255	2.4	1.9	3	Council Street tree in hard pavement. Fair to good condition. Planted within the last	2a
	London Plane Tree										
10041	<i>Platanus x acerifolio</i>	SM	7	5	110	165	1.2	1.6	2	Council Street tree in hard pavement. Fair condition, exhibiting suppressed growth	2a
	London Plane Tree										
10042	<i>Platanus x acerifolio</i>	M	16	12	510	635	6	2.7	2	Large specimen 15 to 20 years old in hard pavement. Good condition. Overhangs	2a
	London Plane Tree										
10043	<i>Platanus x acerifolio</i>	M	16	10	310	400	3.6	2.3	2	Large specimen 15 to 20 years old in hard pavement. Good condition. Overhangs	2a
	London Plane Tree										
10044	<i>Platanus x acerifolio</i>	M	17	14	480	635	6	2.7	2	Large specimen 15 to 20 years old in Granite pavement. Good condition.	2a
	London Plane Tree										
10045	<i>Platanus x acerifolio</i>	M	15	10	310	400	3.6	2.3	2	Council Street tree in hard pavement, 15 to 20 years old. Good condition. Overhangs	2a
	London Plane Tree										
10046	<i>Platanus x acerifolio</i>	M	16	10	400	580	4.8	2.6	2	Council Street tree in hard pavement, 15 to 20 years old. Pronounced lean towards	2a
	London Plane Tree										
10047											

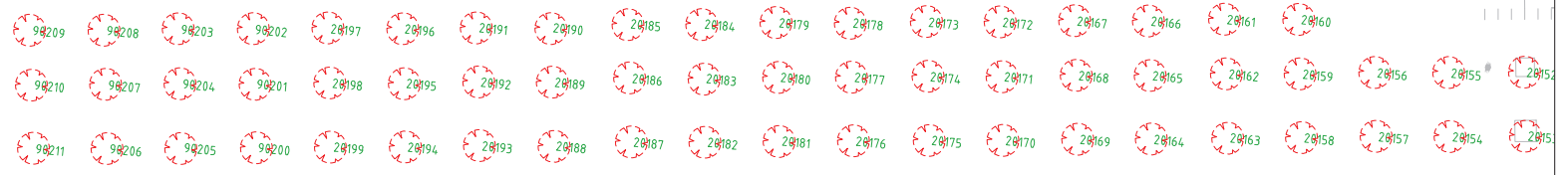
Appendix F – Blues Point Reserve

- Appendix F1 - Arborist Tree Survey Report (Utilities)

Tree No.	Botanical Name Common Name	Age Class	Height m	Spread m	DBH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
700000	<i>Ficus macrophylla</i> Moreton Bay Fig	M	17	28	2000	2000	24	4.4	1	Large significant specimen. Age range 80-100 years. Exhibits good health and	1c
700001	<i>Eucalyptus botryoides</i> Bangalay	M	6.5	11	180 190 200 200	400	4.8	2.3	4	Fair to poor multi-trunked specimen. Indigenous the location. Trunks	3b
700002	<i>Olea europaea. ssp. Africana</i> African Olive	M	5.5	5	75 90 100 120	400	2.4	2.3	4	Fair to poor exotic self sown weed species. Previously lopped. Wind	3b
700003	<i>Ficus rubiginosa</i> Port Jackson Fig	OM	2.5	8	-	-	-	-	4	Poor specimen. Previously lopped large tree now composed entirely of	3b
700004	<i>Ficus rubiginosa</i> Port Jackson Fig	SM	3	6	175 220	350	3.6	2.1	4	Small self sown tree, indigenous to location. Stunted growth. Growing on	3a
700005										Understorey of self sown exotic and weed species of mostly <i>Olea</i>	
700006		NB. Trees located on edge of cliff have estimated DBH and DRB.									
700007											
700008		NB. Cliff locationS mean TPZ and SRZ requirements of AS4970 do not apply. Impacts should be assessed based on individual circumstances.									
700009											
700010											
700011											
700012											
700013											
700014											

Appendix G - Barangaroo

- Appendix G1 – Tree Impact Assessment Plan
- Appendix G2 - Arborist Tree Survey Report(s)
- Appendix G3 – Arborist Tree Survey Report (Utilities)



PLAN
SCALE 1:250

LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
GENERAL			
	A CLASS HOARDING		EXISTING TREE TO BE RETAINED
	B CLASS HOARDING		EXISTING TREE TO BE REMOVED
	VEHICULAR ACCESS GATE		EXISTING TREE TO PRUNED
	SHADE CLOTH TO ATF FENCE		TREE PROTECTION ZONE
	SHADE CLOTH TO EXISTING FENCE		STRUCTURAL ROOT ZONE
TREES			

NOTE:

- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION.
- ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

FOR INFORMATION ONLY
SYDNEY METRO CITY & SOUTHWEST

REV.	BY	DATE	DESCRIPTION	APPD.
A1	Original			

SCALES
Plot Date: 21/11/17 - 16:38

CLIENT

Transport for NSW

Service Providers

PARSONS BRINCKERHOFF

AECOM

COX HASSELL

DESIGNED: _____

DRG CHECK: _____

DESIGN CHECK: _____

APPROVED: JAN MCLAWADE-WHITTON

BARANGAROO STATION

URBAN DESIGN

TREE IMPACT ASSESSMENT PLAN

SHEET 1

STATUS: FOR INFORMATION ONLY

SHEET 1 OF 4

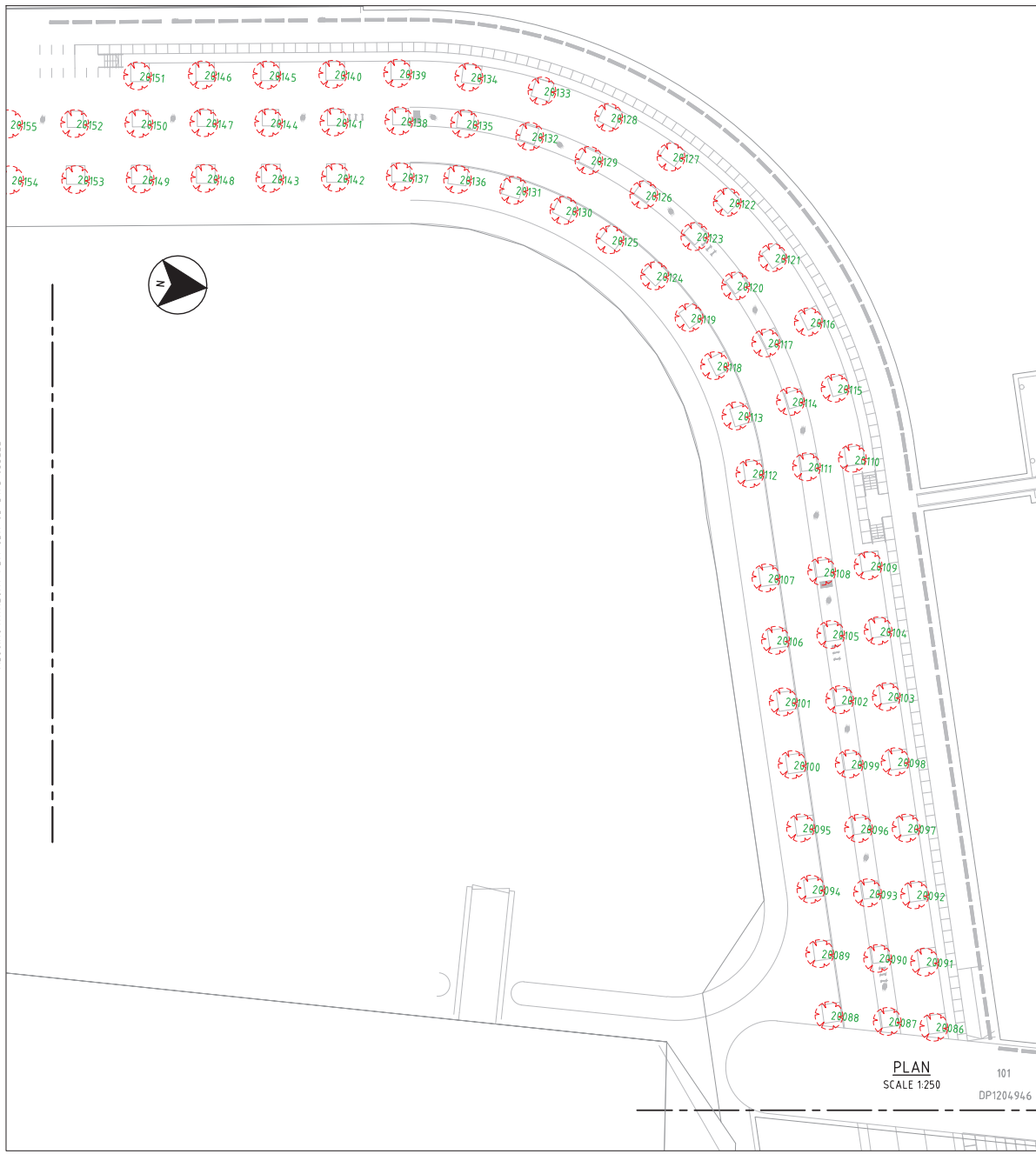
NWRL Dwg No. NWRLSRT-PBA-SBR-UD-DWG-835222

NWRL REV. A

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ADJOINS NWRLSRT-PBA-SBR-UD-DWG-835223

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LEGEND		TREES	
GENERAL			
	A CLASS HOARDING		EXISTING TREE TO BE RETAINED
	B CLASS HOARDING		EXISTING TREE TO BE REMOVED
	VEHICULAR ACCESS GATE		EXISTING TREE TO PRUNED
	SHADE CLOTH TO ATF FENCE		TREE PROTECTION ZONE
	SHADE CLOTH TO EXISTING FENCE		STRUCTURAL ROOT ZONE

NOTE:

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- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

PLAN
SCALE 1:250
101
DP1204.94.6

ADJOINS NWRLSRT-PBA-SBR-UD-DWG-835224

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST

BARANGAROO STATION
URBAN DESIGN
TREE IMPACT ASSESSMENT PLAN
SHEET 2

STATUS: FOR INFORMATION ONLY SHEET 2 OF 4

NWRL Dwg No. NWRLSRT-PBA-SBR-UD-DWG-835223

REV.	BY	DATE	DESCRIPTION	APPD.
A	MA	21.11.17	ISSUED FOR INFORMATION	

SCALES

1:250 FULL SIZE A1



Plot Date: 21/11/17 - 16:37



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SERVICE PROVIDERS

DESIGNED BY MICHELLE POWCE

DESIGNED BY PARSONS BRINCKERHOFF

DRG CHECK BY A-Z-COM

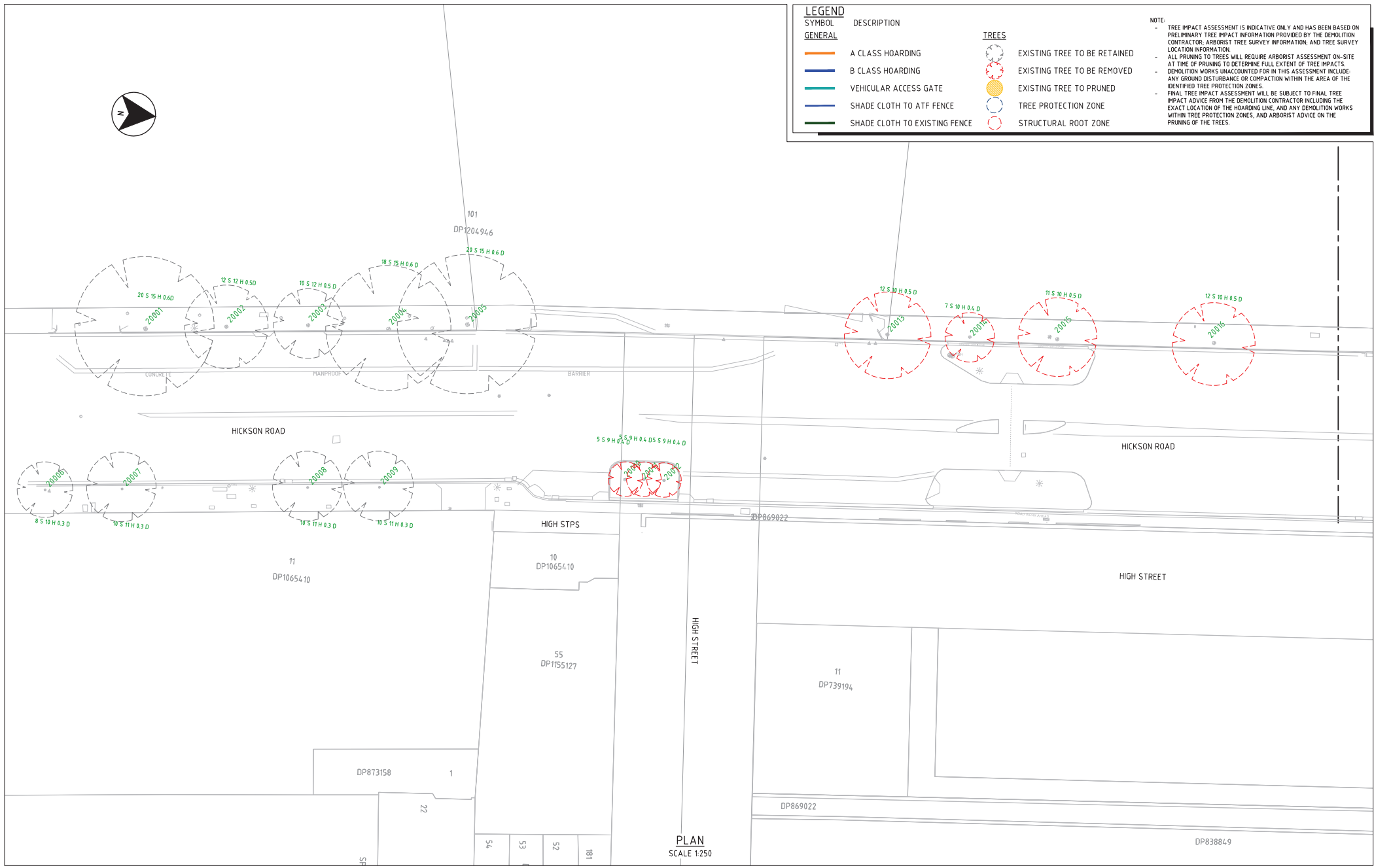
DESIGN CHECK BY COX HASSELL

APPROVED BY JAN MCLWANE-WHITTON



LEGEND		TREES	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	A CLASS HOARDING		EXISTING TREE TO BE RETAINED
	B CLASS HOARDING		EXISTING TREE TO BE REMOVED
	VEHICULAR ACCESS GATE		EXISTING TREE TO PRUNED
	SHADE CLOTH TO ATF FENCE		TREE PROTECTION ZONE
	SHADE CLOTH TO EXISTING FENCE		STRUCTURAL ROOT ZONE

NOTE:
 TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION.
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 DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
 FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

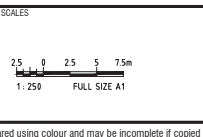


PLAN
SCALE 1:250

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ADJOINS NWRLSRT-PBA-SBR-UD-DWG-835224

REV.	BY	DATE	DESCRIPTION	APPD.
A	MA	21.11.17	ISSUED FOR INFORMATION	



Plot Date: 21/11/17 - 16:37

NOTE: Do not scale from this drawing.



CLIENT

Service Providers

DESIGNED BY MICHELLE POYCE

DRG CHECK

DESIGN CHECK

APPROVED: JAN MCLAWADE-WHITTON

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST

BARANGAROO STATION

URBAN DESIGN

TREE IMPACT ASSESSMENT PLAN

SHEET 4

STATUS: FOR INFORMATION ONLY

NWRLSRT-PBA-SBR-UD-DWG-835225

SHEET 4 OF 4

©

A1 Original

A

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
0			0	0		0	0	0			
						Area m2	0	0			
1	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	15	15	687	997	8.2	3.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	211	34			
2	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	12.5	11.5	550	730	6.6	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning, aerial cables above/through crown	2a
						Area m2	137	26			
3	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	11	10	610	745	7.3	2.9	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, thinning crown, modified by past pruning, aerial cables above/tthrough crown	2a
						Area m2	167	26			
4	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	10.5	10	735	958	8.8	3.3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, thinning crown, modified by past pruning, aerial cables above/tthrough crown	2a
						Area m2	243	34			
5	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	15	10	650	985	7.8	3.3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, storm damage, modified by past pruning, aerial cables above/tthrough crown	2a
						Area m2	191	34			
6	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	12.8	10	130	410	2.2	2.3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning of roots to clear adjacent building	2a
					135	Area m2	15	17			
7	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	10.6	11.5	405	600	4.9	2.7	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, exposed roots, small branch and twig die back	2a
						Area m2	75	23			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
8	Ficus microcarpa var hillii	M	12	10	330	560	6	2.6	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, modified by past pruning	2a
	<i>Hill's weeping fig</i>					380	Area m2	113			
9	Ficus microcarpa var hillii	M	10.5	10	200	570	6.2	2.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back, modified by past pruning	2a
	<i>Hill's weeping fig</i>					310	Area m2	121			
					360						
10	Livistona australis	M	10.5	5	337	605	4	2.7	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, numerous dead fronds	2a
	<i>Cabbage tree palm</i>						Area m2	50			
11	Livistona australis	M	10	5	330	710	4	2.9	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, numerous dead fronds	2a
	<i>Cabbage tree palm</i>						Area m2	50			
12	Livistona australis	M	7.5	5	385	715	4.6	2.9	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, numerous dead fronds	2a
	<i>Cabbage tree palm</i>						Area m2	66			
13	Ficus microcarpa var hillii	M	11	14	600	840	7.2	3.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, thinning crown, minor small branch and twig die back, storm damage, modified by past pruning, aerial cables above/through crown	2a
	<i>Hill's weeping fig</i>						Area m2	163			
14	Ficus microcarpa var hillii	M	10	9	457	655	5.5	2.8	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed, storm damage, modified by past pruning, aerial cables above/through crown	2e
	<i>Hill's weeping fig</i>						Area m2	95			
15	Ficus microcarpa var hillii	M	13	13.5	576	795	6.9	3	2	Evergreen native tree introduced to the site, good to fair condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, modified by past pruning	2a
	<i>Hill's weeping fig</i>						Area m2	150			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
16	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	10.5	13	570	780	6.8	3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, storm damage, modified by past pruning, branch wounds	2e
						Area m2	145	28			
17	Livistona australis <i>Cabbage tree palm</i>	M	7.8	5	305	485	3.7	2.4	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	43	18			
18	Livistona australis <i>Cabbage tree palm</i>	M	10.5	5	375	565	4.5	2.6	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	64	21			
19	Livistona australis <i>Cabbage tree palm</i>	M	10.5	5	390	700	4.7	2.8	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	69	25			
20	Ficus microcarpa var hillii <i>Hill's weeping fig</i>	M	3.5	15	450	930	8.6	3.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, modified by past pruning, minor small branch and twig die back	2a
					560	Area m2	232	32			
21	Livistona australis <i>Cabbage tree palm</i>	M	11	5	370	700	4.4	2.8	2	Palm species introduced to the site, Good condition, the species is not rare or endangered, structure and form typical of the species, numerous dead fronds	2a
						Area m2	61	25			
22	Livistona australis <i>Cabbage tree palm</i>	M	11	5	360	600	4.3	2.7	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, numerous dead fronds	2a
						Area m2	58	23			
23	Livistona australis <i>Cabbage tree palm</i>	M	10	5	370	800	4.4	3	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, numerous dead fronds	2a
						Area m2	61	28			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
24	Eucalyptus robusta <i>Swamp mahogany</i>	M	7.5	9	305	340	3.7	2.1	3	Evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, canopy dieback and hazardous deadwood, small branch and twig die back	3a
						Area m2	43	14			
25	Eucalyptus robusta <i>Swamp mahogany</i>	M	10	10	255	350	3.1	2.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back	2a
						Area m2	30	14			
26	Eucalyptus robusta <i>Swamp mahogany</i>	M	13	9	330	455	4	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	50	18			
27	Eucalyptus robusta <i>Swamp mahogany</i>	M	12	10	430	560	5.2	2.6	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, storm damage, modified by past pruning	2a
						Area m2	85	21			
28	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	6	4	110	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
29	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	6	4	110	150	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
30	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	6	4	105	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
31	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	6	4	93	130	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
32	Platanus orientalis 'Digitata'	SM	6	4	93	126	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
33	Platanus orientalis 'Digitata'	SM	6	4	120	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
34	Platanus orientalis 'Digitata'	SM	6	4	110	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
35	Platanus orientalis 'Digitata'	SM	6	4	110	160	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
36	Platanus orientalis 'Digitata'	SM	6	4	93	120	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
37	Platanus orientalis 'Digitata'		6	4	108	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
38	Platanus orientalis 'Digitata'	SM	6	4	100	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
39	Platanus orientalis 'Digitata'	SM	6	4	97	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
40	Platanus orientalis 'Digitata'	SM	5.5	3.5	100	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
41	Platanus orientalis 'Digitata'	SM	5.5	3.5	100	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
42	Platanus orientalis 'Digitata'	SM	5.5	3.5	93	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
43	Platanus orientalis 'Digitata'	SM	5.5	3.5	90	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
44	Platanus orientalis 'Digitata'	SM	5.5	3.5	87	120	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
45	Platanus orientalis 'Digitata'	SM	5.5	3.5	97	127	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
46	Platanus orientalis 'Digitata'	SM	5.5	3.5	100	147	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
47	Platanus orientalis 'Digitata'	SM	5.5	3.5	100	115	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
48	Platanus orientalis 'Digitata'	M	5.5	3.5	110	165	2	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	8			
49	Platanus orientalis 'Digitata'	SM	5.5	3.5	104	155	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
50	Platanus orientalis 'Digitata'	SM	5.5	3.5	107	150	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
51	Platanus orientalis 'Digitata'	SM	5.5	3.5	100	160	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
52	Platanus orientalis 'Digitata'	SM	5.5	3.5	100	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
53	Platanus orientalis 'Digitata'	SM	5.5	3.5	90	120	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
54	Platanus orientalis 'Digitata'	SM	5.5	3.5	110	150	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
55	Platanus orientalis 'Digitata'	SM	5.5	3.5	106	130	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
56	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	92	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
57	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	97	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
58	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	92	125	2	1.5	2	Deciduous tree introduced to the site, average condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
59	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	107	150	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
60	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	92	127	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
61	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	105	155	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
62	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	100	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
63	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	110	160	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
64	Platanus orientalis 'Digitata'	SM	5.5	3.5	93	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
65	Platanus orientalis 'Digitata'	SM	5.5	3.5	90	127	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
66	Platanus orientalis 'Digitata'	SM	5.5	3.5	105	152	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
67	Platanus orientalis 'Digitata'	SM	5.5	3.5	100	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
68	Platanus orientalis 'Digitata'	SM	6	3.5	110	160	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
69	Platanus orientalis 'Digitata'	SM	5.5	3.5	83	113	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
70	Platanus orientalis 'Digitata'	SM	5.5	3.5	97	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			
71	Platanus orientalis 'Digitata'	SM	5.5	3.5	95	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cut leaf plane</i>					Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
72	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	100	150	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
73	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	105	137	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	13	7			
74	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	112	157	2.5	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	7			
75	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	SM	5.5	3.5	105	147	2.5	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	7			
76	Ficus rubiginosa <i>Port Jackson fig</i>	SM	5	6	170	245	2.5	1.8	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	10			
77	Ficus rubiginosa <i>Port Jackson fig</i>	SM	5.6	7.5	197	250	2.5	1.8	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	10			
78	Ficus rubiginosa <i>Port Jackson fig</i>	SM	4.8	7	170	250	2.5	1.8	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	10			
79	Ficus rubiginosa <i>Port Jackson fig</i>	SM	4.6	6.5	195	260	2.5	1.9	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	11			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
80	Ficus rubiginosa <i>Port Jackson fig</i>	SM	4.8	6	170	250	2.5	1.8	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	10			
81	Ficus rubiginosa <i>Port Jackson fig</i>	SM	4.5	5	170	230	2.5	1.8	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	10			
82	Ficus rubiginosa <i>Port Jackson fig</i>	SM	4.4	6.5	187	235	2.5	1.8	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	10			
83	Ficus rubiginosa <i>Port Jackson fig</i>	SM	4.6	6.5	205	270	2.5	1.9	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	20	11			
84	Ficus rubiginosa <i>Port Jackson fig</i>	SM	4.8	5	170	215	2.5	1.7	2	Evergreen tree indigenous to the locality, fair condition, the species is not rare or endangered, structure and form typical of the species, thinning crown	2e
						Area m2	20	9			
85	Ficus rubiginosa <i>Port Jackson fig</i>	SM	5	5	170	235	2.5	1.8	2	Evergreen tree indigenous to the locality, fair condition, the species is not rare or endangered, structure and form typical of the species, thinning crown	2e
						Area m2	20	10			
86	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	33	110	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					37	Area m2	13	7			
87	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	45	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					50	Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
88	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x45	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
89	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	65	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
90	Celtis australis <i>European hackberry</i>	SM	3.5	3.5	74	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
91	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	57	110	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
92	Celtis australis <i>European hackberry</i>	SM	4	2.5	55	170	2	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					82	Area m2	13	8			
93	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	70	115	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
94	Celtis australis <i>European hackberry</i>	SM	4	3	87	160	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
95	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	3x30	120	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
96	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	70	123	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
97	Celtis australis <i>European hackberry</i>	SM	4	3	75	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
98	Celtis australis <i>European hackberry</i>	SM	4	3	2x35 70	160	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
99	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	43	87	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
100	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	37 55	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
101	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	68	120	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
102	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x50	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
103	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	70	130	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE			
104	Celtis australis	SM	3.5	2.5	25	103	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a			
	<i>European hackberry</i>				30							Area m2	13	7
					48									
105	Celtis australis	SM	3.5	2.5	50	104	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a			
	<i>European hackberry</i>											Area m2	13	7
106	Celtis australis	SM	3.5	2.5	53	107	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a			
	<i>European hackberry</i>											Area m2	13	7
107	Celtis australis	SM	3.5	2.5	25	112	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2b			
	<i>European hackberry</i>				48							Area m2	13	7
108	Celtis australis	SM	3.5	2.5	40	127	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a			
	<i>European hackberry</i>				52							Area m2	13	7
109	Celtis australis	SM	3.5	2.5	40	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a			
	<i>European hackberry</i>				2x53							Area m2	13	7
110	Celtis australis	SM	4	3	80	180	2	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a			
	<i>European hackberry</i>											Area m2	13	8
111	Celtis australis	SM	3.5	2.5	47	120	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a			
	<i>European hackberry</i>											Area m2	13	7

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
112	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	47	100	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
113	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	50	108	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
114	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	68	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
115	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x25 40	100	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
116	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	48 65	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
117	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	45	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
118	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	70	130	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
119	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	50	95	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE		
120	Celtis australis	SM	3.5	2.5	30	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
	45				Area m2							13	7
	55												
121	Celtis australis	SM	3.5	2.5	2x30	115	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
	52				Area m2							13	7
122	Celtis australis	SM	3.5	0	2x30	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
	70				Area m2							13	7
123	Celtis australis	SM	3.5	2.5	47	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
					Area m2							13	7
124	Celtis australis	SM	3.5	2.5	72	130	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
					Area m2							13	7
125	Celtis australis	SM	3.5	2.5	55	115	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
					Area m2							13	7
126	Celtis australis	SM	3.5	2.5	60	110	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
					Area m2							13	7
127	Celtis australis	SM	3.5	2.5	55	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a		
					Area m2							13	7

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
128	Celtis australis <i>European hackberry</i>	SM	4	3	2x35 2x55	144 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
129	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	52	116 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
130	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	50	115 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
131	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	50	97 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
132	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	40 47 68	132 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
133	Celtis australis <i>European hackberry</i>	SM	3	2.5	57	105 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
134	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	90	137 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
135	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	30 37	105 Area m2	2 13	1.5 7	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
136	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	60	112	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
137	Celtis australis <i>European hackberry</i>	SM	3	2.5	30	93	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					40	Area m2	13	7			
138	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	35	115	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					50	Area m2	13	7			
139	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	58	95	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
140	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	75	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
141	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	53	100	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
142	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	77	127	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
143	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	30	100	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					47	Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
144	Celtis australis <i>European hackberry</i>	SM	4	3	102	180	2	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	8			
145	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x30	112	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
146	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x35	123	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					55	Area m2	13	7			
147	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	40	110	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					45	Area m2	13	7			
148	Celtis australis <i>European hackberry</i>	SM	3	2.5	60	104	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
149	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	68	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
150	Celtis australis <i>European hackberry</i>	SM	4	3	50	147	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					60	Area m2	13	7			
151	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	60	110	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
152	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	40	103	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
153	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	63	110	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
154	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	35	95	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					45	Area m2	13	7			
155	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	48	112	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
156	Celtis australis <i>European hackberry</i>	SM	4	2.5	2x35	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					50	Area m2	13	7			
157	Celtis australis <i>European hackberry</i>	SM	3	2	55	95	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
158	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	80	112	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
159	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	45	110	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
160	Celtis australis	SM	3.5	2.5	45	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				60	Area m2	13	7			
161	Celtis australis	SM	3.5	2.5	45	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				Area m2	13	7				
162	Celtis australis	SM	4	3	62	160	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				70	Area m2	13	7			
163	Celtis australis	SM	3.5	2.5	55	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				Area m2	13	7				
164	Celtis australis	SM	3.5	2.5	25	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				35	Area m2	13	7			
					45						
165	Celtis australis	SM	3.5	2.5	2x38	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				50	Area m2	13	7			
166	Celtis australis	SM	3.5	2.5	68	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				Area m2	13	7				
167	Celtis australis	SM	3.5	2.5	47	100	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
	<i>European hackberry</i>				Area m2	13	7				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
168	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	85	133	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
169	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	55	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
170	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	63	124	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
171	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	47	100	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
172	Celtis australis <i>European hackberry</i>	SM	4	3	20	155	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
				38		Area m2	13	7			
				58							
173	Celtis australis <i>European hackberry</i>	SM	4	3	60	145	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
174	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	3x35	133	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
				46		Area m2	13	7			
175	Celtis australis <i>European hackberry</i>	SM	3	2.5	60	97	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
176	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	40	125	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					50	Area m2	13	7			
177	Celtis australis <i>European hackberry</i>	SM	3	2	40	90	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
178	Celtis australis <i>European hackberry</i>	SM	4	3	80	150	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
179	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	56	126	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
180	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	80	122	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
181	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x25	95	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					40	Area m2	13	7			
182	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x20	112	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	
					50	Area m2	13	7			
183	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	56	120	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
184	Celtis australis <i>European hackberry</i>	SM	4	3	2x25 62	140 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
185	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	60	120 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
186	Celtis australis <i>European hackberry</i>	SM	4	3.5	85	140 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
187	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	30 45	117 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
188	Celtis australis <i>European hackberry</i>	SM	3.5	0	60	119 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
189	Celtis australis <i>European hackberry</i>	SM	3	2	37	95 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
190	Celtis australis <i>European hackberry</i>	SM	4	3	95	163 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
191	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	67	135 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
192	Celtis australis <i>European hackberry</i>	SM	4	3	2x40 58	173 Area m2	2 13	1.6 8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
193	Celtis australis <i>European hackberry</i>	SM	3	2	43	95 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
194	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	60	120 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
195	Celtis australis <i>European hackberry</i>	SM	3	2	40	90 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
196	Celtis australis <i>European hackberry</i>	SM	4	3	90	155 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
197	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	80	140 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
198	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	2x45 53	135 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
199	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	47	104 Area m2	2 13	1.5 7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
200	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	73	134	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
201	Celtis australis <i>European hackberry</i>	SM	3	2.5	45	90	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
202	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	80	130	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
203	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	40	105	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					48	Area m2	13	7			
204	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	85	182	2	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	8			
205	Celtis australis <i>European hackberry</i>	SM	3	3	65	118	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
206	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	65	135	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
207	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	33	117	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					52	Area m2	13	7			

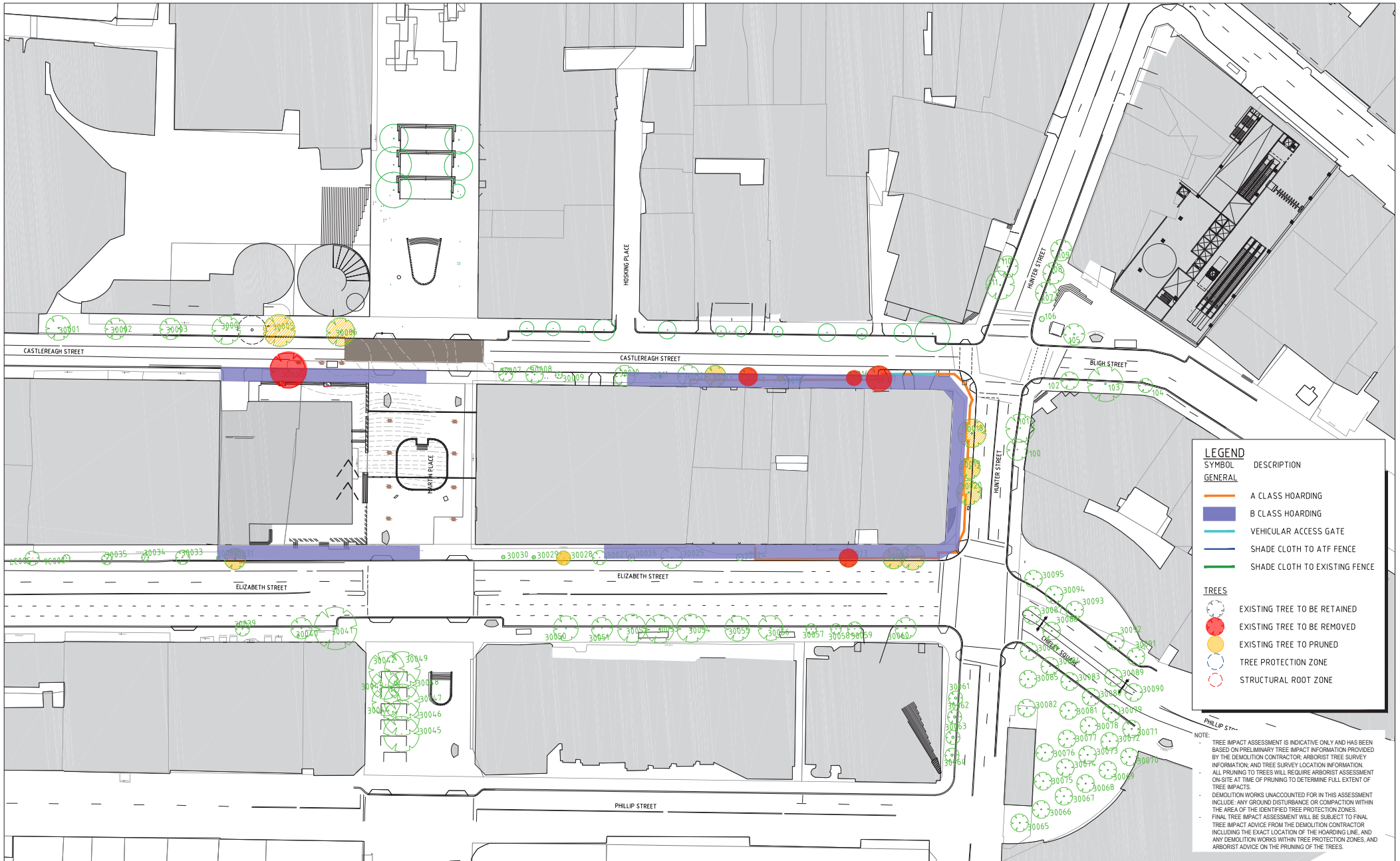
Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
208	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	105	136	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					Area m2	13	7				
209	Celtis australis <i>European hackberry</i>	SM	4	3	2x28	140	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
					40	Area m2	13	7			
210	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	70	115	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			
211	Celtis australis <i>European hackberry</i>	SM	3.5	2.5	62	127	2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by recent past pruning to a height suitable for forming the proposed Allee above and over the foreshore walkway.	2a
						Area m2	13	7			

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
20200	<i>Ficus microcarpa var. hillii</i>	SM	9.5	9	355	370	4.8	2.2	2	Evergreen native species planted last 10-15 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20201	<i>Ficus microcarpa var. hillii</i>	SM	8	8	270	280	3.6	1.9	2	Evergreen native species planted last 10-15 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20202	<i>Ficus microcarpa var. hillii</i>	SM	11.5	12	350	360	4.32	1.9	2	Evergreen native species planted last 10 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20203	<i>Ficus microcarpa var. hillii</i>	M	13.5	13	440	495	4.8	2.5	2	Evergreen native species planted last 20-25 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20204	<i>Ficus microcarpa var. hillii</i>	SM	10.5	12	340	350	3.6	2.1	2	Evergreen native species planted last 10 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20205	<i>Ficus microcarpa var. hillii</i>	SM	10.5	9	300	320	3.84	2.1	2	Evergreen native species planted last 10 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20206	<i>Ficus microcarpa var. hillii</i>	SM	8	8	215	260	2.4	1.9	2	Evergreen native species planted last 10 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20207	<i>Lophostemon confertus</i>	Y	3	1	45	80	1.15	1.2	3	Young street tree recently planted. Tree has little impact on streetscape.	5a
	Brush Box										
20208	<i>Ficus microcarpa var. hillii</i>	SM	7	5	200	300	2.4	2	2	Evergreen native species planted last 10 years. Smaller specimen. Exhibiting	2a
	Hill's Weeping Fig										
20209	<i>Ficus microcarpa var. hillii</i>	SM	8	7	230	330	2.4	2.1	2	Evergreen native species planted last 10 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20210	<i>Ficus microcarpa var. hillii</i>	SM	10	9	265	345	3.6	2.1	2	Evergreen native species planted last 10 years. Exhibiting excellent health and	2a
	Hill's Weeping Fig										
20211	<i>Ficus microcarpa var. hillii</i>	SM	8	7	225	275	2.4	1.9	2	Evergreen native species planted last 10 years. Slightly smaller specimen.	2a
	Hill's Weeping Fig										
20212	<i>Ficus microcarpa var. hillii</i>	M	19	32	1160	1200	14.4	3.6	1	Very large old evergreen native specimen. Approximately 60- 70 years	1a
	Hill's Weeping Fig										
20213	<i>Ficus microcarpa var. hillii</i>	M	9.5	6	260	310	3.6	2	3	Evergreen native species planted last 20-25 years. Stunted growth due to poor	3b
	Hill's Weeping Fig										
20214	<i>Ficus microcarpa var. hillii</i>	M	9.5	5	235	270	2.4	1.9	3	Evergreen native species planted last 20-25 years. Stunted growth due to poor	3b
	Hill's Weeping Fig										

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
20215	<i>Ficus microcarpa var. hillii</i>	M	6.5	4	160	200	2.4	1.7	3	Small evergreen native species planted last 20-25 years. Stunted growth due to	3b
	Hill's Weeping Fig										
20216	<i>Ficus microcarpa var. hillii</i>	M	7	4	260	330	3.6	2.1	3	Evergreen native species planted last 20-25 years. Slightly larger specimen.	3a
	Hill's Weeping Fig										
20217	<i>Ficus microcarpa var. hillii</i>	M	14	8	360	420	4.8	2.3	2	Evergreen native species planted last 20-25 years. Slightly larger specimen.	2d
	Hill's Weeping Fig										
20218	<i>Ficus microcarpa var. hillii</i>	M	13	12	420	490	4.8	2.5	2	Evergreen native species planted last 20-25 years. Larger specimen. Exhibits fair	2d
	Hill's Weeping Fig										
20219	<i>Ficus microcarpa var. hillii</i>	M	13	8	310	350	3.6	2.1	2	Evergreen native species planted last 20-25 years. Larger specimen. Exhibits fair	2d
	Hill's Weeping Fig										
20220	<i>Ficus microcarpa var. hillii</i>	M	11	7	355	415	4.8	2.3	2	Evergreen native species planted last 20-25 years. Larger specimen. Exhibits fair	2d
	Hill's Weeping Fig										
20221	<i>Ficus microcarpa var. hillii</i>	M	10	5	295	300	3.6	2	2	Evergreen native species planted last 20-25 years. Smaller specimen. Exhibits fair	2d
	Hill's Weeping Fig										
20222	<i>Ficus microcarpa var. hillii</i>	M	9	8	315	335	3.6	2.1	2	Evergreen native species planted last 20-25 years. Smaller specimen. Exhibits fair	2d
	Hill's Weeping Fig										
20223	<i>Ficus macrophylla</i>	SM	7	18	NA	NA	NA	NA	2	Evergreen native species planted last 10 years. Exhibiting good health and vigour.	2d
	Moreton Bay Fig										
20224	<i>Ficus microcarpa var. hillii</i>	M	13	8	340	360	3.6	2.2	2	Evergreen native species planted last 20-25 years. Smaller specimen. Exhibits fair	2d
	Hill's Weeping Fig										

Appendix H – Martin Place

- Appendix H1 – Tree Impact Assessment Plan
- Appendix H2 - Arborist Tree Survey Report(s)
- Appendix H3 - Site Survey Drawing(s)



LEGEND

SYMBOL	DESCRIPTION
GENERAL	
	A CLASS HOARDING
	B CLASS HOARDING
	VEHICULAR ACCESS GATE
	SHADE CLOTH TO ATF FENCE
	SHADE CLOTH TO EXISTING FENCE
TREES	
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	EXISTING TREE TO BE PRUNED
	TREE PROTECTION ZONE
	STRUCTURAL ROOT ZONE

NOTE:

- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION AND TREE SURVEY LOCATION INFORMATION. ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

PLAN
SCALE 1:250

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST
MARTIN PLACE STATION
URBAN DESIGN
TREE IMPACT ASSESSMENT PLAN

REV	BY	DATE	DESCRIPTION	APPD.
D	PT	08.02.19	Updated to reflect Tree Report Revision 05	
C	IJ	08.01.18	ISSUED FOR INFORMATION	IMW
B	IJ	13.12.17	ISSUED FOR INFORMATION	IMW
A	JP	19/03/2017	ISSUED FOR INFORMATION	AC

SCALES

1:500 FULL SIZE A1

CLIENT

Transport for NSW

SERVICE PROVIDERS

PARSONS BRINCKERHOFF
AECOM
COX HASSELL

DESIGNED JOHN PARGETER
DRG CHECK ANTHONY CHARLESWORTH
DESIGN CHECK ANTHONY CHARLESWORTH
APPROVED ANTHONY CHARLESWORTH

REV	BY	DATE	DESCRIPTION	APPD.
A1	Original		Co-ordinate System: MGA Zone 56 Height Datum: A.H.D.	

100mm AT FULL SIZE

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1	Celtis occidentalis <i>Hackberry</i>	M	10	10	330	400	4	2.3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, structure & form modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 4m., termite activity	2a
						Area m2	50	17			
2	Celtis occidentalis <i>Hackberry</i>	M	7	9.5	260	310	3.1	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, thinning crown, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 4.5 m. Clearance above road pavement 6m.	2a
						Area m2	30	13			
3	Celtis occidentalis <i>Hackberry</i>	M	9	11	285	300	3.4	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, thinning crown, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 6.5m.	2a
						Area m2	36	13			
4	Celtis occidentalis <i>Hackberry</i>	M	9	14	300	324	3.6	2.1	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 5m. Clearance above road pavement 6.5m.	2a
						Area m2	41	14			
5	Celtis occidentalis <i>Hackberry</i>	M	9.5	13	325	440	3.9	2.3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 6m.	2a
						Area m2	48	17			
6	Celtis occidentalis <i>Hackberry</i>	M	8.5	15.5	380	580	4.6	2.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 5.5m. Clearance above road pavement 8m.	2a
						Area m2	66	21			
7	Fraxinus pennsylvanica <i>Green ash</i>	M	9	6	140	200	1.7	1.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor branch and twig die back, no visible evidence of pests or disease, crown overhang across adjoining road 4m. Clearance above road pavement 5m.	2a
						Area m2	9	9			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
8	Fraxinus pennsylvanica <i>Green ash</i>	M	14	9	170	280	2	1.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 5m.		2a
					Area m2	13	11					
9	Fraxinus pennsylvanica <i>Green ash</i>	M	8.5	3	145	200	1.7	1.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, trunk wound compartmentalised, modified by past pruning.		2a
					Area m2	9	9					
10	Fraxinus pennsylvanica <i>Green ash</i>	M	13	11	250	350	3	2.1	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 9m. Clearance above road pavement 5m.		2a
					Area m2	28	14					
11	Fraxinus pennsylvanica <i>Green ash</i>	SM	4	2	55	105	0.7	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease.		2a
					Area m2	2	7					
12	Fraxinus pennsylvanica <i>Green ash</i>	M	9	4	135	180	1.6	1.6	2	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, suppressed, epicormic growth east elevation, crown overhang across adjoining road 3.5m. Clearance above road pavement 4m.		2e
					Area m2	8	8					
13	Fraxinus pennsylvanica <i>Green ash</i>	M	13.5	8	200	250	2.4	1.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, crown overhang across adjoining road 4m. Clearance above road pavement 5m.		2a
					Area m2	18	10					
14	Fraxinus pennsylvanica <i>Green ash</i>	M	9	6.5	155	220	1.9	1.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, suppressed east elevation, crown overhang across adjoining road 5.5m. Clearance above road pavement 5m.		2a
					Area m2	11	10					
15	Platanus acerifolia <i>London plane</i>	SM	4	2	75	115	0.9	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
					Area m2	3	7					

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
16	Platanus acerifolia <i>London plane</i>	M	11.5	5	195	320	2.3	2.1	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, structure & form modified by past pruning, crown overhang across adjoining road 4m. Clearance above road pavement 3m.		2a
						Area m2	17	14				
17	Platanus acerifolia <i>London plane</i>	M	14	8	230	350	2.8	2.1	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 2m. Clearance above road pavement 3m.		2a
						Area m2	25	14				
18	Celtis australis <i>European hackberry</i>	M	10	12.5	355	560	4.3	2.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 6m.		2a
						Area m2	58	21				
19	Celtis australis <i>European hackberry</i>	M	8.5	10	265	500	3.2	2.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning, minor small branch and twig die back, crown overhang across adjoining road 5.5 m. Clearance above road pavement 6m.		2a
						Area m2	32	20				
20	Celtis australis <i>European hackberry</i>	M	9	10.5	270	475	3.2	2.4	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, thinning crown, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 5m. Clearance above road pavement 6m.		2a
						Area m2	32	18				
21	Platanus acerifolia <i>London plane</i>	M	14.5	9	283	480	3.4	2.4	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 6m.		2a
						Area m2	36	18				
22	Platanus acerifolia <i>London plane</i>	M	8	10	232	310	2.8	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning, crown overhang across adjoining road 4m. Clearance above road pavement 5.5 m.		2a
						Area m2	25	13				
23	Platanus acerifolia <i>London plane</i>	M	7	6	154	190	1.8	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, poor form, modified by past pruning, crown overhang across adjoining road 4.5m. Clearance above road pavement 4m.		2e
						Area m2	10	8				

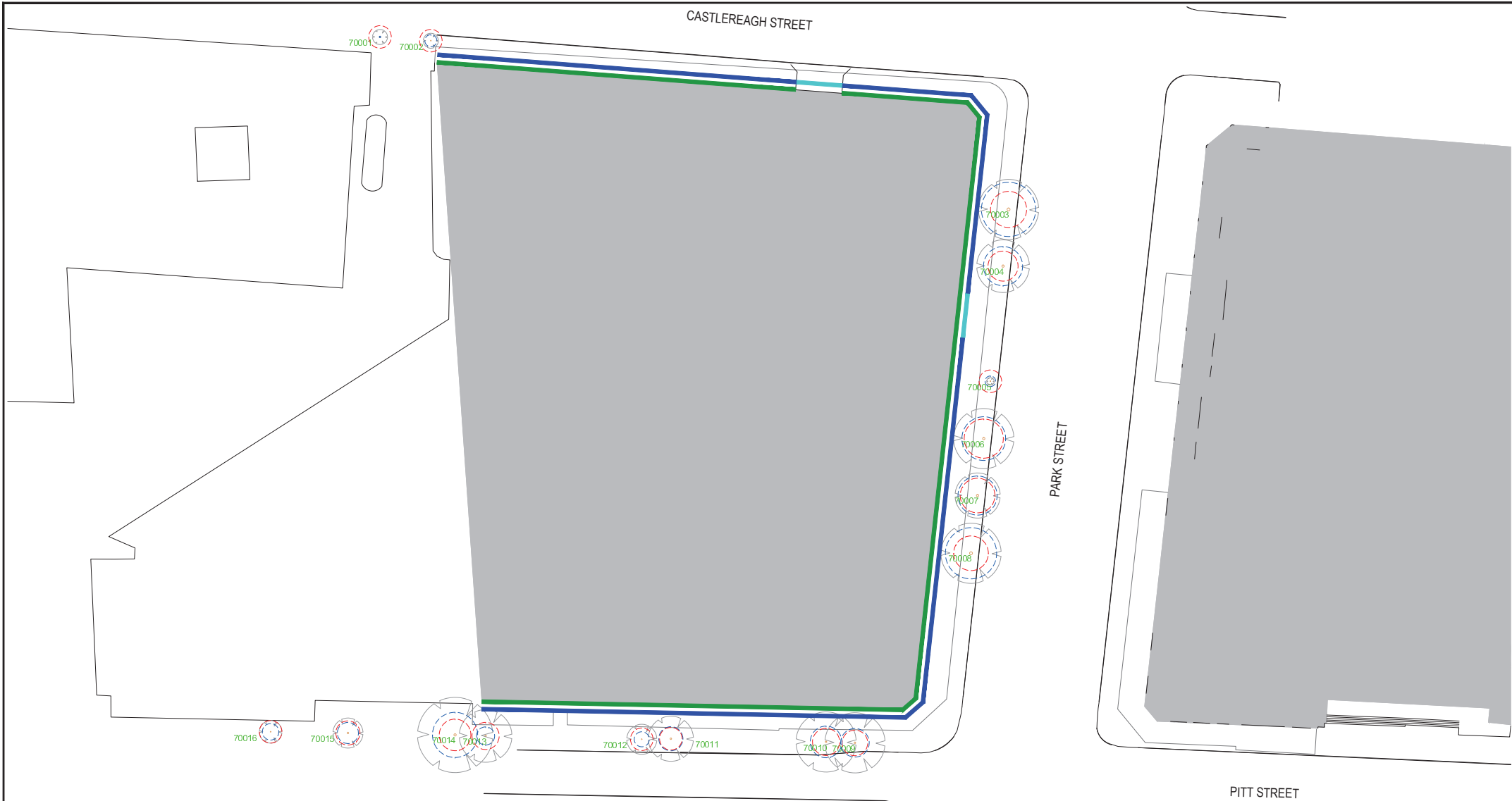
Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
24	Platanus acerifolia <i>London plane</i>	SM	4	2	75	115	0.9	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease		2a
						Area m2	3	7				
25	Platanus acerifolia <i>London plane</i>	M	9	9	225	295	2.7	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, structure & form modified by past pruning, crown overhang across adjoining road 6m. Clearance above road pavement 6m.		2a
						Area m2	23	13				
26	Platanus acerifolia <i>London plane</i>	SM	5	3.5	75	100	0.9	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, crown overhang across adjoining road 3m. Clearance above road pavement 2m.		2a
						Area m2	3	7				
27	Platanus acerifolia <i>London plane</i>	M	8	7.5	150	210	1.8	1.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, structure & form modified by past pruning, crown overhang across adjoining road 3m. Clearance above road pavement 5.5m.		2a
						Area m2	10	9				
28	Platanus acerifolia <i>London plane</i>	M	8	6.5	180	255	2.2	1.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back, no visible evidence of pests or disease, crown overhang across adjoining road 4m. Clearance above road pavement 4m.		2a
						Area m2	15	11				
29	Platanus acerifolia <i>London plane</i>	SM	6	3	65	87	0.8	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, structural fault, no visible evidence of pests or disease		2a
						Area m2	2	7				
30	Platanus acerifolia <i>London plane</i>	SM	4.5	2	60	85	0.7	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease		2a
						Area m2	2	7				
31	Liriodendron tulipifera <i>Tulip tree</i>	M	11	11	420	610	5	2.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, crown overhang across adjoining road 4m. Clearance above road pavement 5m.		2a
						Area m2	79	23				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
32	Platanus acerifolia <i>London plane</i>	SM	4	2	60	94	0.7	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease		2a
						Area m2	2	7				
33	Platanus acerifolia <i>London plane</i>	M	11	4.5	160	232	1.9	1.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, crown overhang across adjoining road 3m. Clearance above road pavement 5m.		2a
						Area m2	11	10				
34	Platanus acerifolia <i>London plane</i>	SM	6	2.5	130	132	1.6	1.5	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, crown overhang across adjoining road 1.5m. Clearance above road pavement 4m.		2a
						Area m2	8	7				
35	Platanus acerifolia <i>London plane</i>	SM	6	5	140	180	1.7	1.6	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, crown overhang across adjoining road 3m. Clearance above road pavement 4.5m.		2a
						Area m2	9	8				
36	Platanus acerifolia <i>London plane</i>	M	7.5	3.5	100	120	1.2	1.5	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease		2a
						Area m2	5	7				
37	Platanus acerifolia <i>London plane</i>	M	7	5	150	200	1.8	1.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, structure & form modified by past pruning, crown overhang across adjoining road 3m. Clearance above road pavement 4.5m.		2a
						Area m2	10	9				
38	Platanus acerifolia <i>London plane</i>	M	16	12	450	720	5.4	2.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, epicomic growth, modified by past pruning, crown overhang across adjoining road 9m. Clearance above road pavement 3.75m.		2a
						Area m2	92	26				

Appendix I – Pitt Street North

- Appendix I1 – Tree Impact Assessment Plan
- Appendix I2 - Arborist Tree Survey Report(s)

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PLAN
SCALE 1:250

LEGEND		TREES	
SYMBOL	DESCRIPTION		
GENERAL			
	A CLASS HOARDING		EXISTING TREE TO BE RETAINED
	B CLASS HOARDING		EXISTING TREE TO BE REMOVED
	VEHICULAR ACCESS GATE		TREE PROTECTION ZONE
	SHADE CLOTH TO ATF FENCE		STRUCTURAL ROOT ZONE
	SCAFFOLD OFF B-CLASS HOARDING		

NOTE:

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- ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

REV	BY	DATE	DESCRIPTION	APPD.
A1	Original			

SCALES
25 0 25 75m
1:250 FULL SIZE A1

Plot Date: 16/06/17 - 14:33

CLIENT

Transport for NSW

Service Providers

DRAWN: JOHN PARGETER
 DESIGNED: ANTHONY CHARLESWORTH
 DRG CHECK: ANTHONY CHARLESWORTH
 DESIGN CHECK: ANTHONY CHARLESWORTH
 APPROVED: ANTHONY CHARLESWORTH

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST
PITT STREET
URBAN DESIGN
TREE IMPACT ASSESSMENT PLAN

STATUS: REFERENCE DESIGN

SHEET 1 OF 1

NWRL Dwg No: NWRLSRT-PBA-SMP-UD-DWG-836222

NWRL REV: A

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1	Waterhousia floribunda 'Green Avenue <i>Green Ave weeping lillypilly</i>	SM	4	4	8	10	0.1	1.5	2	Street tree. Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, trunk wound, basal wound	2a
						Area m2	0	7			
2	Waterhousia floribunda 'Green Avenue <i>Green Ave weeping lillypilly</i>	SM	3.5	2.5	70	90	0.8	1.5	2	Street tree. Evergreen tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning	2a
						Area m2	2	7			
3	Lophostemon confertus <i>Brushbox</i>	M	12	6.5	300	480	3.6	2.4	2	Stree tree. Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	41	18			
4	Lophostemon confertus <i>Brushbox</i>	M	7.5	5.8	215	300	2.6	2	2	Street tree. Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	21	13			
5	Lophostemon confertus <i>Brushbox</i>	SM	3.5	2	60	90	0.7	1.5	2	Street tree .Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	2	7			
6	Lophostemon confertus <i>Brushbox</i>	M	9.5	6.5	240	550	2.9	2.6	2	Streeet tree. Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	26	21			
7	Lophostemon confertus <i>Brushbox</i>	M	10.5	6.5	215	440	2.6	2.3	2	Street tree. Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	21	17			
8	Lophostemon confertus <i>Brushbox</i>	M	13.5	6.5	280	410	3.4	2.3	2	Street tree. Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	36	17			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
9	Ulmus parvifolia <i>Chinese elm</i>	M	6.5	6	155	210	1.9	1.7	2	Street tree, deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back	2a
						Area m2	11	9			
10	Ulmus parvifolia <i>Chinese elm</i>	M	7.5	6	175	240	2.1	1.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	14	10			
11	Ulmus parvifolia <i>Chinese elm</i>	M	5.5	5.5	130	160	1.6	1.5	2	Street tree, deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning	2e
						Area m2	8	7			
12	Ulmus parvifolia <i>Chinese elm</i>	M	5.5	4	80	115	1	1.5	2	Street tree, deciduous tree introduced to the site, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back	3a
						Area m2	3	7			
13	Ulmus parvifolia <i>Chinese elm</i>	M	5.5	4.6	100	250	1.2	1.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back	2a
						Area m2	5	10			
14	Ulmus parvifolia <i>Chinese elm</i>	M	8.5	9.5	250	340	3	2.1	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back	2a
						Area m2	28	14			
15	Populus species <i>Poplar tree</i>	M	9	5.5	120	170	1.4	1.6	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, small branch and twig die back	2a
						Area m2	6	8			
16	Populus simonii <i>Chinese poplar</i>	M	6	3	16	130	1.1	1.5	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
					90	Area m2	4	7			

Appendix J - Central

- Appendix J1 – Tree Impact Assessment Plan
- Appendix J2 - Arborist Tree Survey Report(s)
- Appendix J3 - Site Survey Drawing(s)

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1	Celtis occidentalis	M	9.5	12.5	2x100	650	5.5	2.8	4	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, recognised invasive or weed species	2c
	<i>Hackberry</i>					4x220	Area m2	95			
2	Celtis occidentalis	M	8.2	8	4x200	1100	8.7	3.4	4	Deciduous tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, recognised invasive or weed species, poor structure and form	3c
	<i>Hackberry</i>					3x350	Area m2	238			
3	Ulmus procera	M	14	9	532	756	6.4	2.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, structure & form modified by past pruning	2a
	<i>English elm</i>						Area m2	129			
4	Jacaranda mimosifolia	M	12.5	13.6	636	801	7.6	3	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning, overhangs roof of adjoining building by 3m	2a
	<i>Jacaranda tree</i>						Area m2	181			
5	Cyathea cooperi	M	3.5	3	193	300	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cooper's tree fern</i>						Area m2	20			
6	Cyathea cooperi	M	6	3.5	215	249	2.6	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Cooper's tree fern</i>						Area m2	21			
7	Phoenix canariensis	M	8	6	800	925	9.6	3.2	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, recognised invasive or weed species	2c
	<i>Canary Island date palm</i>						Area m2	290			
8	Cyathea cooperi	M	5	1.5	244	240	2.9	2	2	Evergreen native tree introduced to the site, poor condition, the species is not rare or endangered, suppressed totally over grown by adjacent palm	2e
	<i>Cooper's tree fern</i>						Area m2	26			

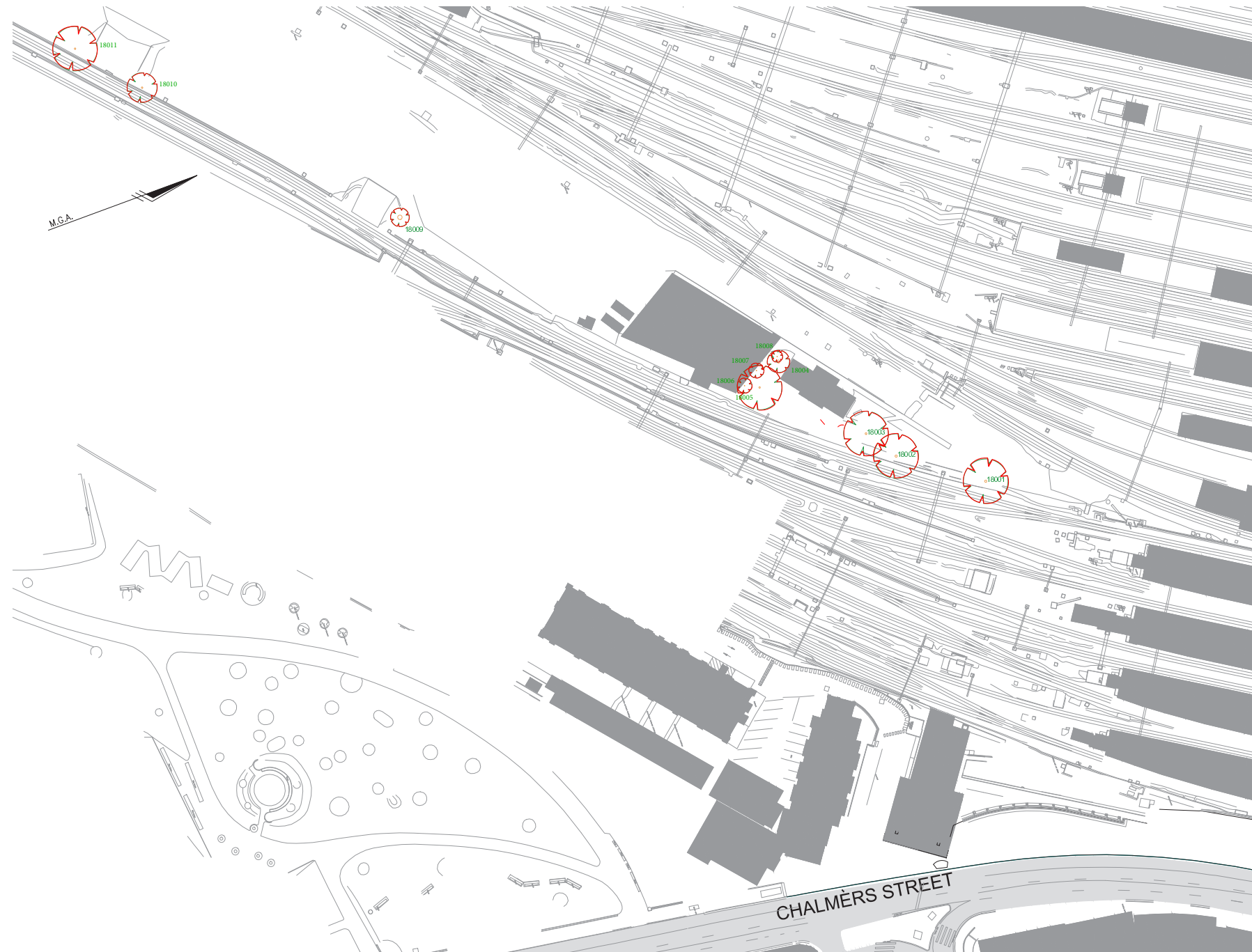
Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	S read m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE			
9	Phoenix canariensis	M	5.5	4.5	1000	1310	12	3.7	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, recognised invasive or weed species	2c			
	<i>Canary Island date palm</i>											Area m2	452	43
10	Celtis occidentalis	M	9	8	150	899	5.4	3.2	4	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, recognised invasive or weed species	2c			
	<i>Hackberry</i>				275							Area m2	92	32
					325									
11	Celtis occidentalis	M	8.5	9	100	400	4.1	2.3	4	Deciduous tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, recognised invasive or weed species	3c			
	<i>Hackberry</i>				2x150							Area m2	53	17
					250									

NOTES
1 | ELECTRONIC FILE
 ELECTRONIC FILES PROVIDED WITHOUT WARRANTY AND SHOULD BE USED ONLY IN CONJUNCTION WITH THE SUPPLIED PAPER COPY OF THIS PLAN.

2 | BOUNDARIES
 THE POSITION OF THE BOUNDARIES ON THE PLAN AND WITHIN THE CAD FILE ARE DERIVED FROM SURVEY ACCURATE COORDINATE MODELING UNDER THE NSW 1984 HELM SYSTEM AND BASED ON THE NEWSPR DIGITAL CADASTRAL DATABASE. NO FIELD INVESTIGATIONS HAVE BEEN CARRIED OUT TO CONFIRM THE LOCATION OR DIMENSIONS OF THE VEGETATION INVESTIGATION.

3 | DATUM HEIGHT
 LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD) BASED ON THE PROJECT PRIMARY CONTROL TRAVERSE USING SSM 168140 WITH RL OF 16.124 LOCATED RECENT ST.

4 | DATUM ORIGIN
 ORIGIN OF COORDINATES SSM 168140 WITH MGA COORDINATE VALUES OF E: 303945.376 N: 184584.566



REVISIONS		HORIZ. SCALE		VERT. SCALE		NOTES	
		1:500		N/A @ A1			
		COORDINATES: MGA		DATUM: AHD			
		ORIGIN: SSM 168140		ORIGIN: SSM 168140			
		SCALE IN METRES AT ORIGINAL REDUCTION RATIO					
No.	DATE	REVISION DETAILS	DRAWN	CHK	APP		
A	15.06.2017	INITIAL VERSION	JMU	MGL	SFG		

		CLIENT Transport for NSW		TITLE SYDNEY METRO CITY AND SOUTH WEST Tree Survey - SYAB		JOB No. PR124856		ISSUE A	
SURVEY: GS DRAWN: JMU CHECKED: MGL APPROVED: SFG		DATE OF SURVEY: 08.06.2017 DATE OF PLAN: 15.06.2017 DATE LAST SAVED: 15.06.2017 DATE APPROVED: 15.06.2017		DRAWING No. NWLRSRT-RPS-SYA-SR-DWG-000001 SYAB STN-A Tree Survey.dwg		SHEET 1 OF 1 SHEETS SIZE A1			



58A & 62A Regent Street, Chippendale

Arboricultural Impact Assessment

Prepared for
Laing O'Rourke

22 May 2017

A handwritten signature in black ink, appearing to read 'Elizabeth Hannon'.

Elizabeth Hannon - Consulting Arborist

A handwritten signature in black ink, appearing to read 'Phil Witten'.

Phil Witten - Senior Consulting Arborist



DOCUMENT TRACKING

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Status	FINAL
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All trees have been assessed based on the observations from the site inspection and information presented by the client or relevant parties at the time of inspection. No responsibility can be taken for incorrect or misleading information provided by the client or other parties.

Trees are living organisms. As such, their health and structure may alter, they will grow and their environmental circumstances may change from the time of the site inspection upon which this assessment is based. Trees, as with all living things, pose some level of risk.

Tree risk assessments are valid for 12 months after the date of inspection, unless otherwise stated. Any significant change to the subject tree(s) or surrounding environment, including significant or catastrophic storm/wind events will require the immediate re-inspection and assessment of the tree(s).

Trees fail in ways that the arboricultural community are yet to fully understand. There is no guarantee expressed or implied that failure or deficiencies may not arise of the subject trees in the future. No responsibility is accepted for damage to property or injury/death caused by the nominated trees.

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Abbreviations

Abbreviation	Description
AQF	Australian Qualifications Framework
AS	Australian Standards
DBH	Diameter at Breast Height
ELA	Eco Logical Australia
m	Metre
mm	Millimetre
NDE	Non-Destructive Excavation
NO	Number
NSW	New South Wales
SP	Species
SRZ	Structural Root Zone
TPZ	Tree Protection Zone
VTA	Visual Tree Assessment

1 Background

1.1 Introduction

Eco Logical Australia Pty Ltd (ELA) was commissioned by Laing O'Rourke to prepare an arboricultural impact assessment for a proposed development located at 58A and 62A Regent Street, Chippendale.

The purpose of this report is to:

- identify the trees at the site that are likely to be affected by the proposed works
- assess the current overall health and condition of the subject trees
- evaluate the significance of the subject trees and assess their suitability for retention.

1.2 The proposal

The key features of the proposed upgrade works are summarised as follows:

- demolishing of existing dwellings and structures
- construction of new vehicular crossover and yard access bridge.

The Chatswood to Sydenham Environmental Impact Statement (May 2016, p.187) assesses the impact of the removal of the subject trees currently located on the presented design of the Sydney Yard Access Bridge access. Given the site constraints of providing access from Regent Street to the Sydney Yard, there is no opportunity to relocate the bridge or modify the entrance to the bridge to avoid removal of the trees. The replacement tree planting proposal is currently under review with the Design Review Panel and will incorporate trees in the new space to be created by the removal of the terraces at 56-62 Regent Street at the new Bridge entrance. Replacement trees will be no smaller than 75 litre pot size.

1.3 The study area

The study area currently contains vacant residential terraces/buildings. The study area is located within the City of Sydney Local Government Area, with the subject trees sited on the Council verge. Currently, a permit or development consent is required by City of Sydney Council to ringbark, cut down, top, lop, prune, remove, injure or wilfully destroy a tree that:

- (a) has a height of 5 m or more; or
- (b) has a canopy spread of over 5 m; or
- (c) has a trunk diameter of more than 300 mm, measured at ground level; or
- (d) is listed in the Register of Significant Trees.

Both trees assessed were not determined to be exempt species. A map of the study area is in **Appendix A**.

1.4 The subject trees

The subject trees were inspected on 9 May 2017. A total of **2** trees were identified within the study area. Further information, observations and measurements specific to each of the subject trees can be found in **Chapter 3**.

1.5 Documents and plans referenced

The conclusions and recommendations of this report are based on the *Australian Standard, AS 4970-2009, Protection of Trees on Development Sites*, the findings from the site inspections and analysis of the following documents/plans:

- Chatswood to Sydenham Environmental Impact Statement – *Technical Paper No.6 Landscape & Visual Impact Assessment* prepared by IRIS Visual Planning & Design, dated May 2016
- Sydney Metro City and Southwest Sydney Yard Access Bridge *K26-LOR-PLN-011: Construction Environmental Management Plan* prepared by Laing O'Rourke, Revision 2, dated 18/4/17
- Architectural Plan – Sydney Yard Access Bridge prepared by GHD, Woods Bagot & BG&E, Revision 2 dated 5/5/17
- City of Sydney Council, *Sydney Development Control Plan 2012*, Section 3 – General Provisions
- City of Sydney Council, *Sydney Development Control Plan 2012*, *Clause 5.9 Preservation of trees or vegetation*

2 Method

2.1 Visual tree assessment

The subject trees were assessed in accordance with a stage one visual tree assessment (VTA) as formulated by Mattheck & Breloer (1994)¹, and practices consistent with modern arboriculture.

The following limitations apply to this methodology:

- Trees were inspected from ground level, without the use of any invasive or diagnostic tools and testing.
- Trees within adjacent properties or restricted areas were not subject to a complete visual inspection (i.e. defects and abnormalities may be present but not recorded).
- Tree heights, canopy spread and diameter at breast height (DBH) was estimated, unless otherwise stated.
- Tree identification was based on broad taxonomical features present and visible from ground level at the time of inspection.

2.2 Retention Value

The retention value of a tree or group of trees is determined using a combination of environmental, cultural, physical and social values.

- **Low:** These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.
- **Medium:** These trees are moderately important for retention. Their removal should only be considered if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.
- **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 *Australian Standard AS4970 Protection of trees on development sites*.

This tree retention assessment has been undertaken in accordance with the *Institute of Australian Consulting Arboriculturists (IACA) Significance of a Tree, Assessment Rating System (STARS)*. Further details and assessment criteria are in **Appendix B**.

¹ VTA is an internationally recognised practice in the visual assessment of trees as prescribed by Mattheck, C. and Breloer, H. 1994. 'Field Guide for Visual Tree Assessment' *Arboricultural Journal*, Vol 18 pp 1-23.

2.3 Protection zones

- **Tree protection zone (TPZ):** The TPZ is the optimal combination of crown and root area (as defined by AS 4970-2009) that requires protection during the construction process so that the tree can remain viable. The TPZ is an area that is isolated from the work zone to insure no disturbance or encroachment occurs into this zone. Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone.
- **Structural root zone (SRZ):** The SRZ is the area of the root system (as defined by AS 4970-2009) used for stability, mechanical support and anchorage of the tree. The SRZ is critical for the support and stability of the tree, and provides the bulk of mechanical support and anchorage for a tree. Severance of structural roots (>50 mmØ) within the SRZ is not recommended as it may lead to the destabilisation and/or decline of the tree.
- **Root investigation:** When assessing the potential impacts of encroachment into the TPZ consideration will need to be given to the location and distribution of the roots, including above or below ground restrictions affecting root growth. Location and distribution of roots may be determined through non-destructive excavation (NDE) methods such as hydro-vacuum excavation (sucker truck), air spade and manual excavation. Root investigation is used to determine the extent and location of roots within the zone of conflict. Root investigation does not guarantee the retention of the tree.

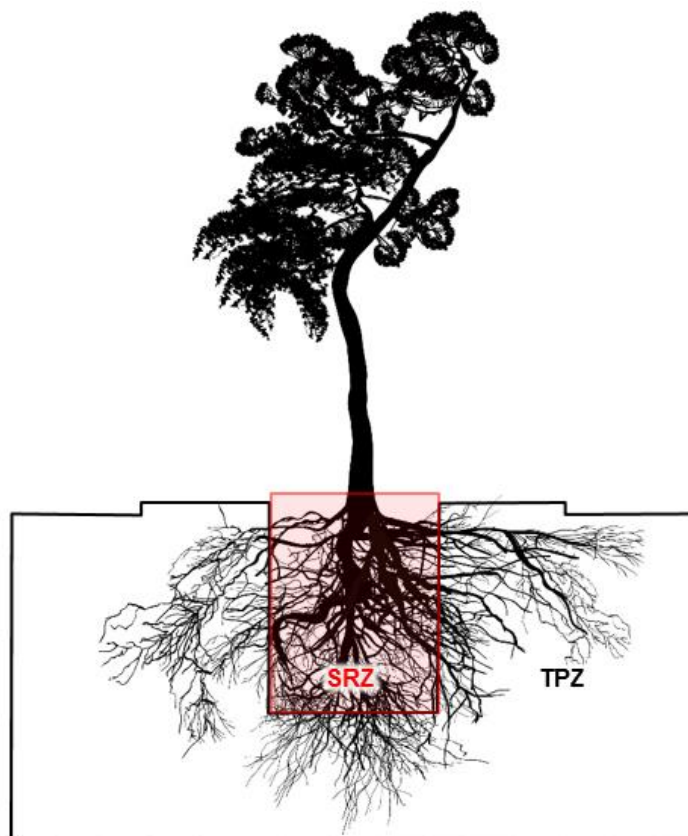


Figure 1: Indicative TPZ and SRZ

2.5 Encroachment within the TPZ

Encroachment includes, but is not limited to excavation, compacted fill, machine trenching, ground penetration, soil disturbance.

- **No encroachment:** The tree is located outside of the proposed footprint
- **Minor Encroachment < 10%:** If the proposed encroachment is less than 10% (total area) of the TPZ, and outside of the SRZ, detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere, and be contiguous with the TPZ.
- **Major Encroachment <20%:** If the proposed encroachment is greater than 10% but less than 25% of the TPZ and outside of the SRZ, the project arborist must demonstrate that the tree(s) remains viable. This may require root investigation by non-destructive methods. The area lost to this encroachment should be compensated for elsewhere, and be contiguous with the TPZ.
- **Major Encroachment >20%:** If the proposed encroachment is greater than 25% of the TPZ the SRZ is likely to be impacted and the tree cannot remain viable. Tree sensitive construction techniques may be used for minor works within this area providing no roots (>50 mmØ) are likely to be impacted and the project arborist can demonstrate that the tree(s) remain viable. Root investigation by non-destructive methods is essential for any proposed works within this area.

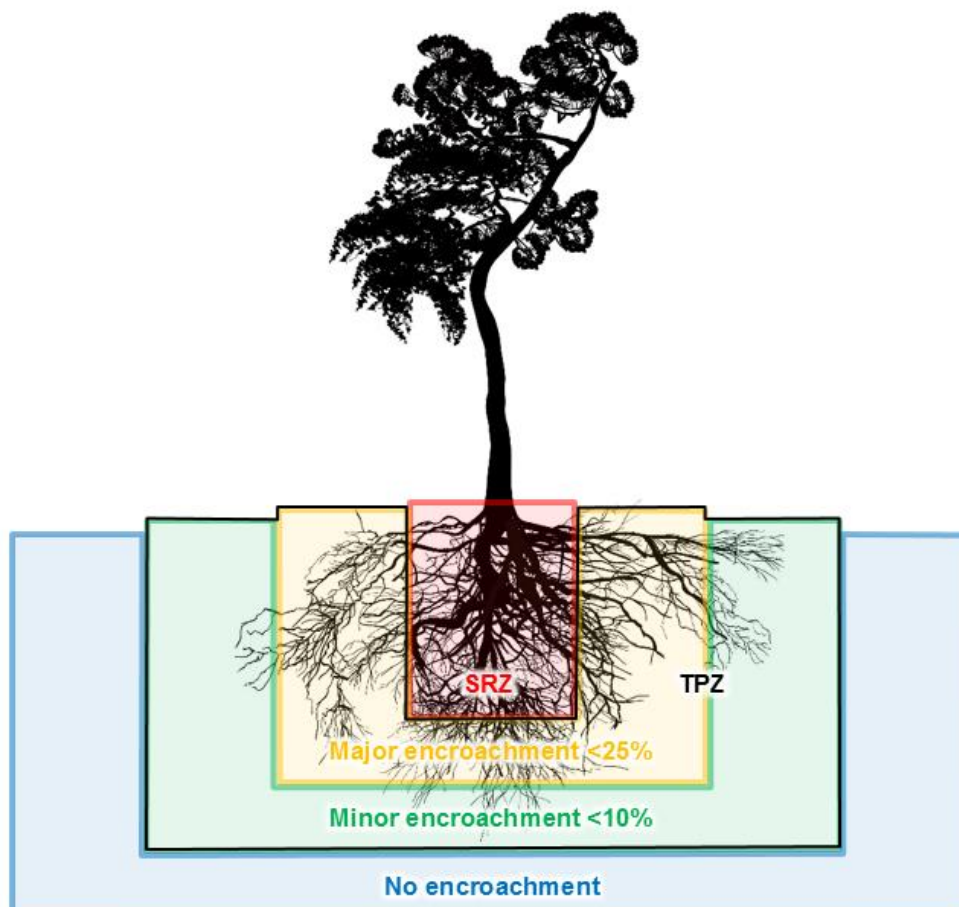


Figure 2: Indicative zones of encroachment within the TPZ

2.6 Mitigation measures

Encroachment within the TPZ must be offset with a range of mitigation measures to ensure that impacts to the subject tree(s) are reduced or restricted wherever possible. Mitigation must be increased relative to the level of encroachment within the TPZ to ensure the subject tree remains viable. **Table 1** outlines mitigation requirements under AS 4970-2009 within each category of encroachment.

Table 1: Mitigation measures

AS 4970-2009	Requirements Under AS 4970-2009	Encroachment	Mitigation Measures
No encroachment (0%)	<ul style="list-style-type: none"> N/A 	No encroachment (0%)	<ul style="list-style-type: none"> N/A
Minor encroachment (<10%)	<ul style="list-style-type: none"> The area lost to this encroachment should be compensated for elsewhere, contiguous with the TPZ. Detailed root investigations should not be required. 	Minor encroachment (<10%)	<ul style="list-style-type: none"> The area lost to this encroachment should be compensated for elsewhere, contiguous with the TPZ. Tree protection must be installed.
Major encroachment (>10%)	<ul style="list-style-type: none"> The project arborist must demonstrate the tree(s) would remain viable. Root investigation by non-destructive methods may be required. Consideration of relevant factors including: Root location and distribution, tree species, condition, site constraints and design factors. The area lost to this encroachment should be compensated for elsewhere, contiguous with the TPZ. 	Major encroachment (<20%)	<ul style="list-style-type: none"> The project arborist must demonstrate the tree(s) would remain viable. The project arborist will be required to supervise any works within the TPZ. Tree protection must be installed.
		Major encroachment (>20%)	<ul style="list-style-type: none"> The project arborist must demonstrate the tree(s) would remain viable. Non-destructive root investigation will be required for any trees proposed for retention. The project arborist will be required to supervise any works within the TPZ. Tree protection must be installed.

3 Results

Table 2 shows the results of the arboriculture assessment. Key points are:

- **Major encroachment (>20%):** 2 trees will be subject to a major encroachment (>20%) within the TPZ, being sited within the development footprint. Under the current proposal, none of these subject trees will be able to be retained without a major redesign of the proposal.
- Trees proposed for removal have the following retention values:
 - 2 trees with a low retention value

Table 2: Results of the arboricultural assessment

No	Botanical name	Trees in Group	Height (m)	Spread (m)	Health	Structure	Retention Value	DBH (mm)	TPZ (m)	SRZ (m)	Encroachment
1	<i>Populus nigra</i> 'Italica'	1	12	4	Fair	Fair	Low	650	7.8	3.0	Major >100%
2	<i>Planatus x hybrida</i>	1	9	5	Fair	Fair	Low	230	2.8	2.0	Major >100%

Recommendations

Any loss of trees should be offset with replacement planting in accordance with the relevant offset policy.

3.1 Trees within the development footprint

- **Low retention value:** A total of **2** trees with a low retention value are recommended for removal.

3.2 Tree work

- All tree work is to be carried out by an arborist with a minimum AQF Level 3 qualification in Arboriculture.
- All tree work must be in accordance with Australian Standard AS 4373-2007, Pruning of Amenity Trees and the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998).
- Permission must be granted from the relevant consent authority, prior to removing or pruning of any of the subject trees.

References

Standards Australia, *AS 4373-2007 Pruning of Amenity Trees*, SAI Global

Standards Australia, *AS 4970-2009 Protection of Trees on Development Sites*, SAI Global

Harris, R., Clark, J., Matheny, N. and Harris, V. 2004. *Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines*, Upper Saddle River, N.J.: Prentice Hall, London

Mattheck, C. 2007. *Updated field guide for visual tree assessment*. Karlsruhe: Forschungszentrum Karlsruhe.

WorkCover NSW. 1998. *Code of Practice: Amenity Tree Industry*

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

Appendix A – Tree locations



Note: Trees observed in the rail corridor under the project footprint were removed in 2015. Only the two subject trees are required to be removed for construction of the Sydney Yard Access Bridge.

Appendix B - Tree retention assessment method

Tree Significance - Assessment Criteria - STARS®		
Low	Medium	High
<p>The tree is in fair-poor condition and good or low vigour.</p> <p>The tree has form atypical of the species</p> <p>The tree is not visible or is partly visible from the surrounding properties or obstructed by other vegetation or buildings</p> <p>The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area</p> <p>The tree is a young specimen which may or may not have reached dimensions to be protected by local Tree Preservation Orders or similar protection mechanisms and can easily be replaced with a suitable specimen</p> <p>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</p> <p>The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms</p> <p>The tree has a wound or defect that has the potential to become structurally unsound.</p> <p>The tree is an environmental pest species due to its invasiveness or poisonous/allergenic properties.</p> <p>The tree is a declared noxious weed by legislation</p>	<p>The tree is in fair to good condition</p> <p>The tree has form typical or atypical of the species</p> <p>The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area</p> <p>The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street</p> <p>The tree provides a fair contribution to the visual character and amenity of the local area</p> <p>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</p>	<p>The tree is in good condition and good vigour</p> <p>The tree has a form typical for the species</p> <p>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.</p> <p>The tree is listed as a heritage item, threatened species or part of an endangered ecological community or listed on councils significant tree register</p> <p>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.</p> <p>The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values.</p> <p>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.</p>

		Tree Significance			
		High	Medium	Low	
Useful Life Expectancy	Long >40 years				
	Medium 15-40 years				
	Short <1-15 years				
	Dead				

Legend for Matrix Assessment	
	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 Protection of trees on development sites. Tree sensitive construction measures must be implemented 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 the 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.
	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.

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A decorative background element consisting of a topographic map with contour lines, rendered in a light green color. The map is positioned on the left side of the page, extending from the top left towards the bottom left.

Central Station Main Works Sydney – Arboricultural Impact Assessment

Laing O'Rourke

DOCUMENT TRACKING

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Abbreviations

Abbreviation	Description
AQF	Australian Qualifications Framework
AS	Australian Standards
DBH	Diameter at Breast Height
ELA	Eco Logical Australia
m	Metre
mm	Millimetre
NDE	Non-Destructive Excavation
NO	Number
NSW	New South Wales
SP	Species
SRZ	Structural Root Zone
TPZ	Tree Protection Zone
VTA	Visual Tree Assessment

1. Background

1.1 Proposed activity

Eco Logical Australia (ELA) was engaged by Laing O'Rourke to conduct an Arboricultural Impact Assessment for three trees within the Central Station Main Works area as part of the Sydney Metro Project. To the south of Lee St substation, a service route is to be installed to carry High Voltage (HV) cables and a pad mount substation is to be built. The HV service route consists of two 150 mm diameter conduits in a 1.3 m deep by 0.5 m wide trench. The conduits will be encased in stabilised sand and the trench above backfilled with compacted fill. The pad mount substation is installed on a 4.5 x 5.9 m concrete slab, 150 mm thick. A HV cable feeds the pad mount and a LV comes from it to feed the Sydney Yard Access Bridge.

1.2 The study area

The three subject trees are located at the southern end of the substation, just east of the Regent Street bus depot, as mapped in Appendix A.

1.3 Purpose of report

The purpose of this report is to:

- identify the trees within the site that are likely to be affected by the proposed works
- assess the current overall health and condition of the subject trees
- evaluate the retention value of the subject trees
- determine the likely impact to the trees.

2. Method

2.1 Definition of a tree

A tree is defined under the *Australian Standard, AS 4970-2009, Protection of Trees on Development Sites* as a long lived woody perennial plant greater than (or usually greater than) 3 m in height with one or relatively few main stems or trunks.

2.2 Visual tree assessment

The subject trees were assessed in accordance with a stage one visual tree assessment (VTA) as formulated by Mattheck & Breloer (1994), and practices consistent with modern arboriculture.

A total of three subject trees were inspected on 29th August 2019 by AQF Level 5 Consulting Arborist, David Bidwell.

The following limitations apply to this methodology:

- Trees were inspected from ground level, without the use of any invasive or diagnostic tools and testing.
- No aerial inspections or root mapping was undertaken.
- Tree heights, canopy spread and diameter at breast height (DBH) was estimated, unless otherwise stated.
- Tree identification was based on broad taxonomical features present and visible from ground level at the time of inspection.
- The location of the trees was determined with reference to a survey provided by the client.

2.3 Retention value

The retention value/importance of a tree or group of trees is determined using a combination of environmental, cultural, physical and social values.

- **Low:** These trees are not considered important for retention, nor require special works or design modification to be implemented for their retention.
- **Medium:** These trees are moderately important for retention. Their removal should only be considered if adversely affected by the proposed works and all other alternatives have been considered and exhausted.
- **High:** These trees are considered important and should be retained and protected. Design modification or re-location of building/s should be considered to accommodate the setbacks as prescribed by Australian Standard AS4970 - Protection of trees on development sites.

This tree retention assessment has been undertaken in accordance with the Institute of Australian Consulting Arboriculturists (IACA) *Significance of a Tree, Assessment Rating System (STARS®)*. Further details and assessment criteria are in **Appendix B**.

2.4 Protection zones

2.4.1 Tree protection zone (TPZ)

The TPZ is the combination of crown and root area (as defined by AS 4970-2009) that requires restriction of access during the construction process. Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone.

2.4.2 Structural root zone (SRZ)

The SRZ is the area of the root system (as defined by AS 4970-2009) used for stability, mechanical support and anchorage of the tree. It is critical for the support and stability of trees. Severance of roots within the SRZ is not recommended as it may lead to the destabilisation and/or decline of the tree.

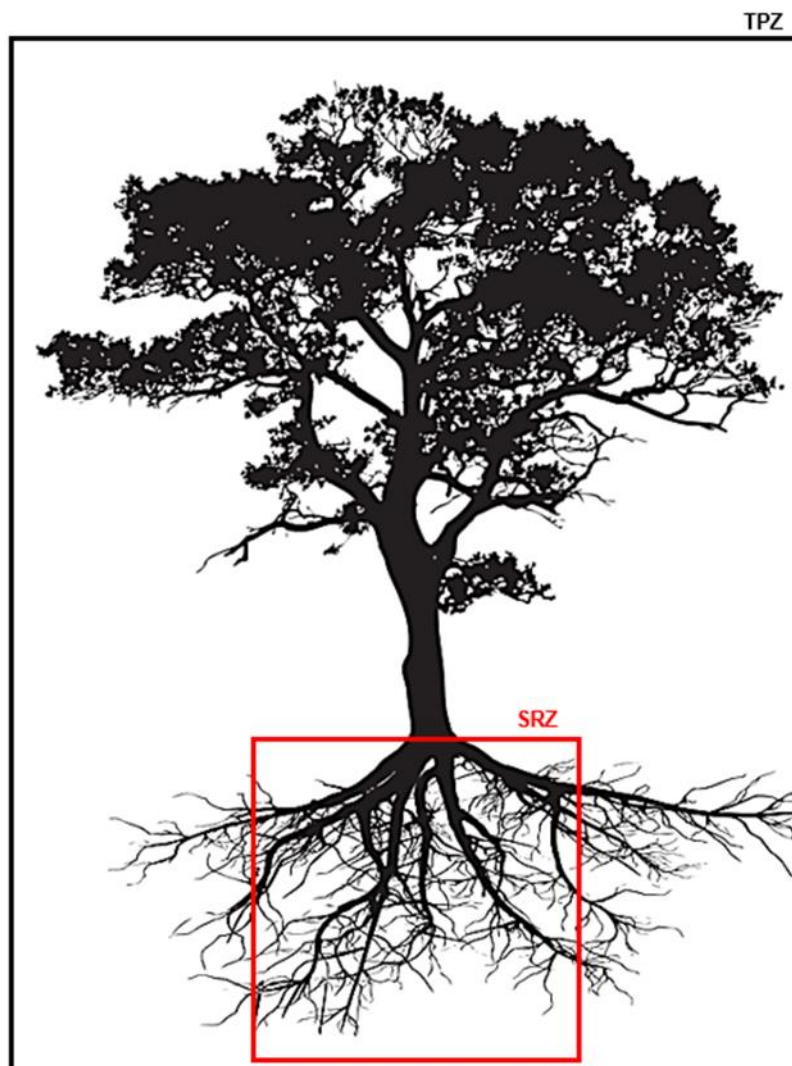


Figure 1: Indicative TPZ and SRZ

2.5 Potential impacts

Trees may be impacted by cutting or damaging roots or branches. Potential impacts are as follows:

- **High impact:** The SRZ may be impacted if the proposed encroachment is greater than 20 % of the TPZ. Trees may not remain viable if they are subject to high impact.
- **Medium impact:** If the proposed encroachment is greater than 10% of the TPZ and outside of the SRZ, the project arborist may require detailed root investigation to demonstrate that the tree(s) would remain viable.
- **Low impact:** If the proposed encroachment is less than 10% (total area) of the TPZ, and outside of the SRZ, detailed root investigations should not be required.
- **No impact:** No likely or foreseeable encroachment within the TPZ.

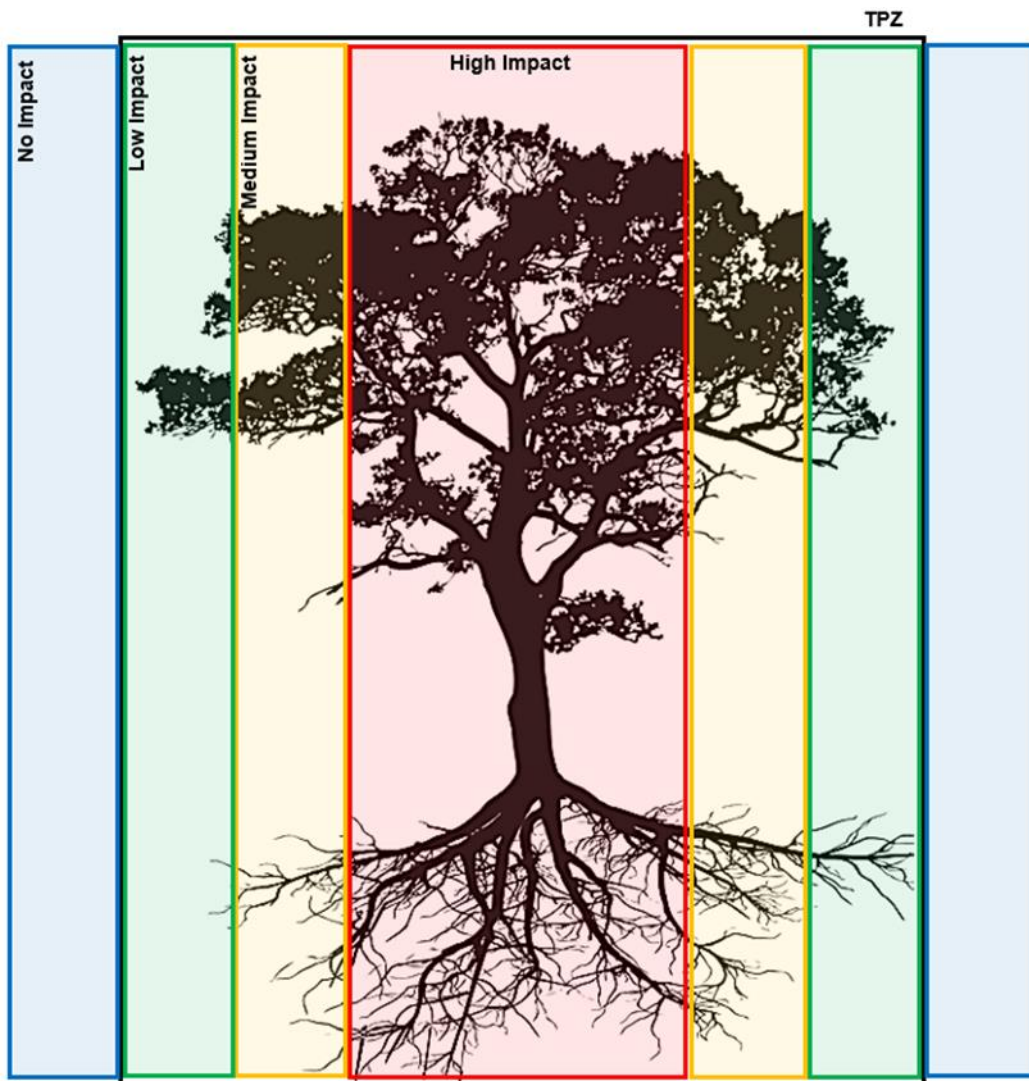


Figure 2: Indicative zones of impact

3. Results and discussion

The arboricultural assessment has two components. The first component assesses tree impacts resulting from the construction of a trench, whilst the second component assesses tree impacts based on the proposed development of new structures within the Central Station Main Works area. The trench assessment was based on an impact area of 0.5 m either side of the proposed trench centreline. Results of the arboricultural assessment for tree impacts resulting from trench works and construction of structures are tabulated in **Table 1** and mapped in **Appendix A**, and summarised as follows:

- Results of proposed trench assessment:
 - **Medium Impact (<20%):** 1 low retention value tree will be subject to an intermediate encroachment (<20%) within the TPZ. This tree is not considered important for retention, nor requires special works or design modification to be implemented for its retention.
 - **No impact (0%):** 2 trees with low retention value will not be impacted by the proposed trenching. Under the current proposal, these trees can be successfully retained.
- Results of proposed structures assessment:
 - **High Impact (>20%):** 3 trees with low retention value will be subject to a major encroachment (>20%) within the TPZ. Under the current proposal, none of these trees can be sustainably retained without modification of the proposal.

Table 1: Results of arboricultural assessment

Tree	Botanical name	Height (m)	Spread (m)	Health	Structure	Retention value	DBH (mm)	TPZ (mm)	SRZ (mm)	Impacts - trench	Impacts - structure
1	<i>Celtis sinensis</i>	9	15	Fair	Fair	Medium (15-40 years)	530	6.4	2.5	Medium Impact: <20%	High Impact: >20%
2	<i>Celtis sinensis</i>	9	10	Fair	Fair	Medium (15-40 years)	440	5.3	2.3	None: 0%	High Impact: >20%
3	<i>Eriobotrya japonica</i>	3	4	Fair	Fair	Short (5-15 years)	150	2.0	1.5	None: 0%	High Impact: >20%

4. Tree protection plan

4.1 Tree removal

- *Celtis sinensis* is a weed and recognised as an 'exempt species' under the Sydney Development Control Plan 2012.
- All tree work must be in accordance with *Australian Standard AS 4373-2007, Pruning of Amenity Trees* and the *NSW WorkCover Code of Practice for the Amenity Tree Industry (1998)*.
- Permission must be granted from the relevant consent authority prior to removing or pruning of any of the subject trees.

4.2 Tree protection measures

The following tree protection measures should be applied if the consent authority requires the trees to be retained:

- Tree protection fencing must be established around the perimeter of the TPZ. If the protective fencing requires temporary removal, trunk, branch and ground protection must be installed and must comply with *AS 4970-2009 - Protection of trees on development sites*. Existing fencing and site hoarding may be used as tree protection fencing.
- If temporary access for machinery is required within the TPZ, ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Ground protection may include a permeable membrane such as geotextile fabric beneath a layer of mulch, crushed rock or rumble boards.
- Any additional construction activities within the TPZ of the subject trees must be assessed and approved by the project arborist and must comply with *AS 4970-2009 - Protection of trees on development sites*.

Further information and guidelines on tree protection are in **Appendix C**.

4.3 Replacement planting

Any loss of trees should be offset with replacement planting in accordance with the relevant offset policy and in consultation with Transport for New South Wales.

5. References

5.1 General references

- Barrell, J. 2001. 'SULE: Its use and status into the new millennium', in *Management of mature trees*, Proceedings of the 4th NAAA Tree Management Seminar, NAAA, Sydney.
- Brooker M.I.H, Kleinig D.A. 2006. *Field Guide to Eucalypts. Volume 1, South-eastern Australia*, 3rd ed Bloomings Books, Melbourne
- Draper, B. and Richards, P., 2009. *Dictionary for Managing Trees in Urban Environments*, Institute of Australian Consulting Arboriculturists (IACA), CSIRO Publishing, Collingwood, Victoria, Australia.
- Harris, R.W., Matheny, N.P., and Clark, J.R., 1999. *Arboriculture: integrated management of landscape trees, shrubs, and vines*, Prentice Hall, Upper Saddle River, New Jersey.
- Mattheck, C. and Breloer, H. 1994. 'Field Guide for Visual Tree Assessment' *Arboricultural Journal*, Vol 18 pp 1-23.
- Mattheck, C. 2007. *Updated Field Guide for Visual Tree Assessment*. Karlsruhe: Forschungszentrum Karlsruhe.
- IACA 2010. *IACA Significance of a Tree, Assessment Rating System (STARS)*, Institute of Australian Consulting Arboriculturalists, Australia, www.iaca.org.au.
- Robinson L, 2003. *Field Guide to the Native Plants of Sydney*, 3rd ed, Kangaroo Press, East Roseville NSW
- Standards Australia 2007. *Australian Standard: Pruning of amenity trees, AS 4373 (2007)*, Standards Australia, Sydney.
- Standards Australia 2009. *Australian Standard: Protection of trees on development sites, AS 4970 (2009)*. Standards Australia, Sydney.

Appendix A Maps

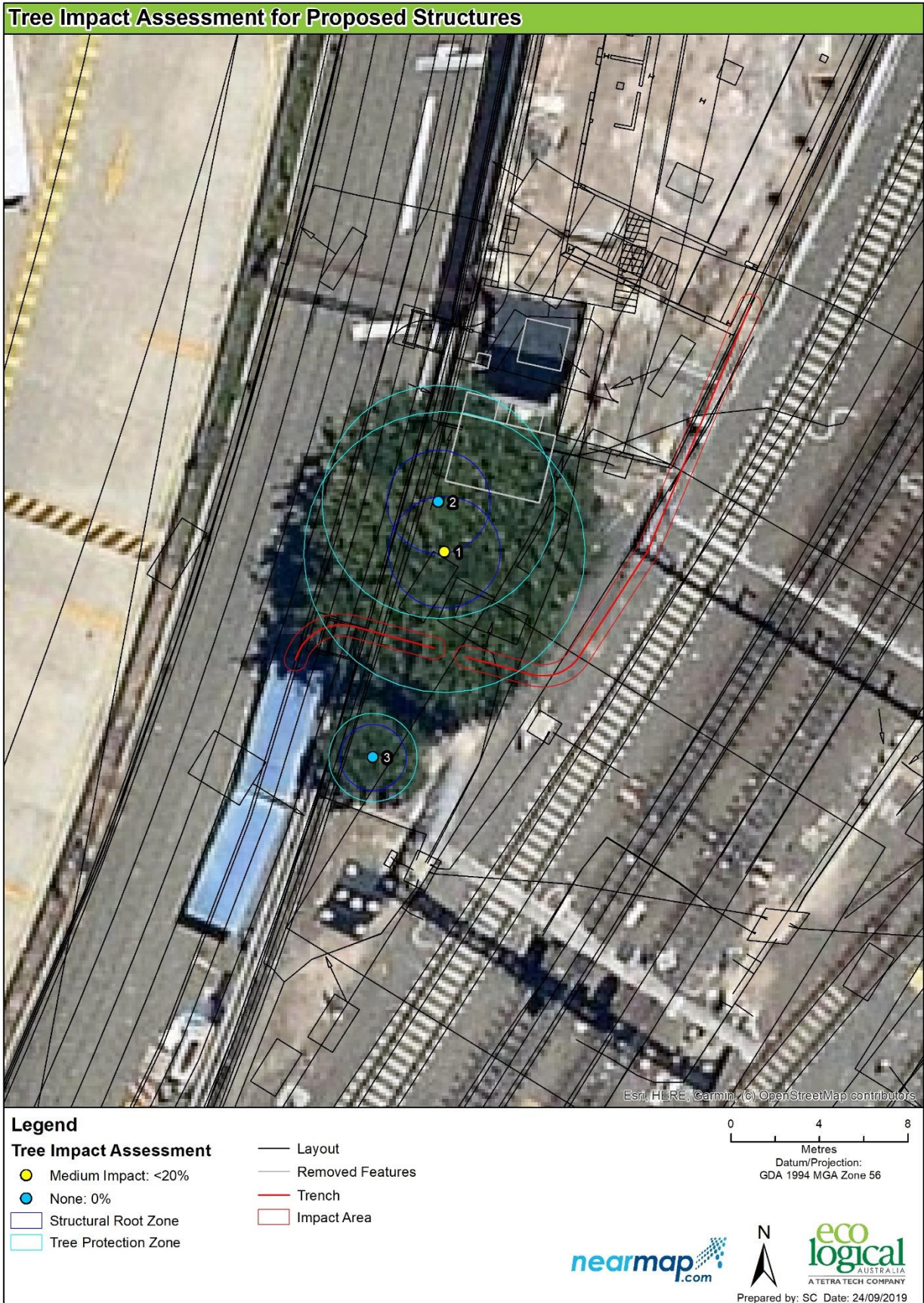


Figure 3: Tree impact assessment for trench works

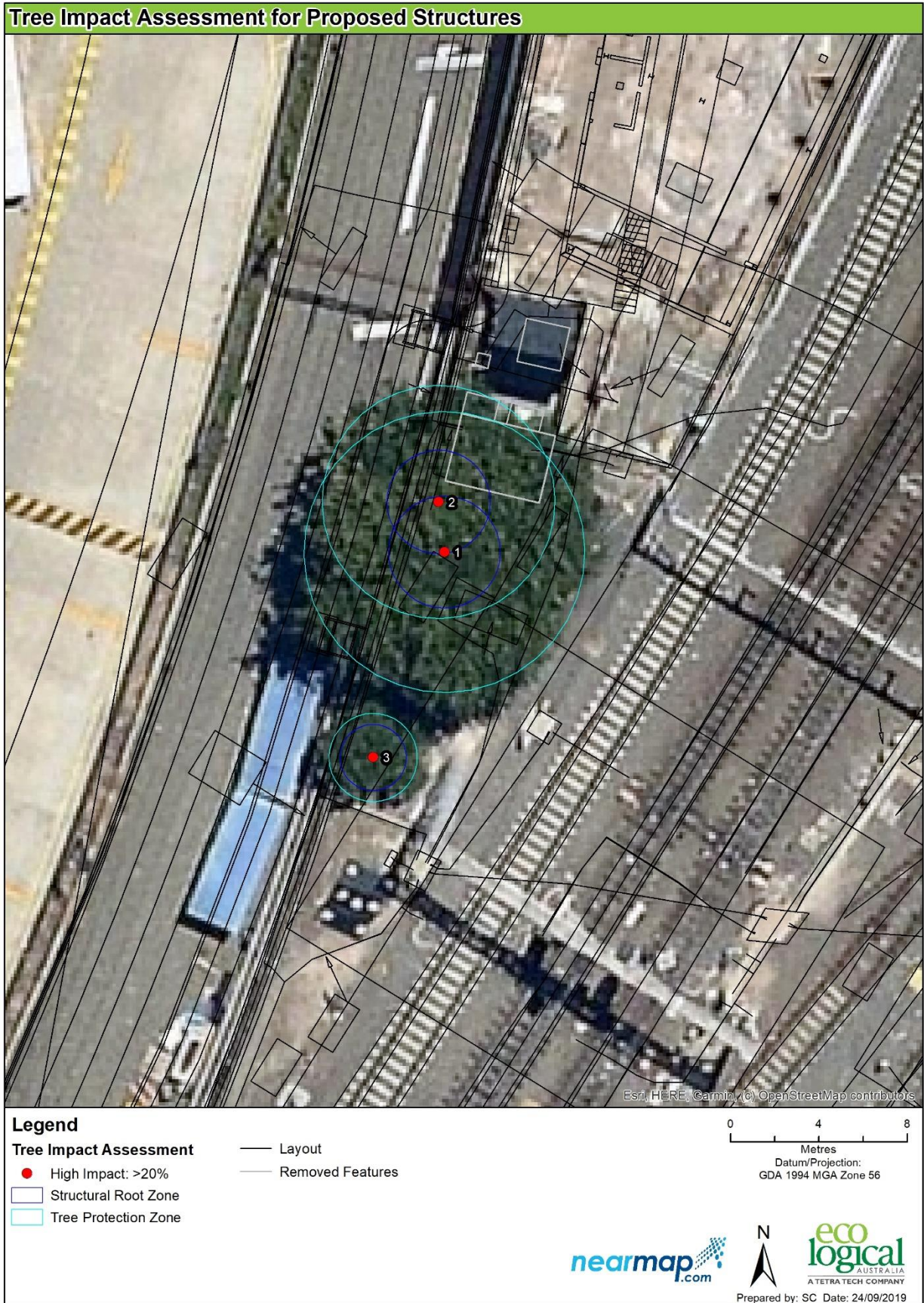


Figure 3: Tree impact assessment for proposed structures

Appendix B Tree retention assessment method

B1 Tree Significance Assessment Criteria - STARS®

Low	Medium	High
<p>The tree is in fair-poor condition and good or low vigour.</p>	<p>The tree is in fair to good condition</p>	<p>The tree is in good condition and good vigour</p>
<p>The tree has form atypical of the species</p>	<p>The tree has form typical or atypical of the species</p>	<p>The tree has a form typical for the species</p>
<p>The tree is not visible or is partly visible from the surrounding properties or obstructed by other vegetation or buildings</p>	<p>The tree is a planted locally indigenous or a common species with its taxa commonly planted in the local area</p>	<p>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.</p>
<p>The tree provides a minor contribution or has a negative impact on the visual character and amenity of the local area</p>	<p>The tree is visible from surrounding properties, although not visually prominent as partially obstructed by other vegetation or buildings when viewed from the street</p>	<p>The tree is listed as a heritage item, threatened species or part of an endangered ecological community or listed on Council's significant tree register</p>
<p>The tree is a young specimen which may or may not have reached dimensions to be protected by local Tree Preservation Orders or similar protection mechanisms and can easily be replaced with a suitable specimen</p>	<p>The tree provides a fair contribution to the visual character and amenity of the local area</p>	<p>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.</p>
<p>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</p>	<p>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</p>	<p>The tree supports social and cultural sentiments or spiritual associations, reflected by the broader population or community group or has commemorative values.</p>
<p>The tree is listed as exempt under the provisions of the local Council Tree Preservation Order or similar protection mechanisms</p>		<p>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.</p>
<p>The tree has a wound or defect that has the potential to become structurally unsound.</p>		
<p>The tree is an environmental pest species due to its invasiveness or poisonous/allergenic properties.</p>		
<p>The tree is a declared noxious weed by legislation</p>		

B2 Matrix assessment

		Tree significance			
		High	Medium	Low	
Useful Life Expectancy	Long >40 years				
	Medium 15-40 years				
	Short <1-15 years				
	Dead				

Legend:

	Priority for retention (High): Tree considered important so should be retained and protected. Design modification or re-location of structure should be considered to accommodate the setbacks as prescribed by the <i>Australian Standard AS4970 Protection of trees on development sites</i> . Tree sensitive construction measures must be implemented if works are to proceed within the Tree Protection Zone.
	Consider for retention (Medium): Tree considered less important, however, retention should remain priority. Removal considered only if adversely affecting the proposed building/works and all other alternatives have been considered and exhausted.
	Consider for removal (Low): Tree not considered important for retention, nor requiring special works or design modification to be implemented for their retention.
	Consider for removal (Low): Tree not considered important for retention, nor requiring special works or design modification to be implemented for their retention.

Appendix C Tree protection guidelines

The following tree protection guidelines must be implemented during the construction period if no tree-specific recommendations are detailed.

C1 Tree protection fencing

The TPZ is a restricted area delineated by protective fencing or the use of an existing structure (such as a wall or fence).

Trees that are to be retained must have protective fencing erected around the TPZ (or as specified in the body of the report) to protect and isolate it from the construction works. Fencing must comply with the Australian Standard, AS 4687-2007, Temporary fencing and hoardings.

Tree protection fencing must be installed prior to site establishment and remain intact until completion of works. Once erected, protective fencing must not be removed or altered without the approval of the project arborist.

If the protective fencing requires temporary removal, trunk, branch and ground protection must be installed and must comply with AS 4970-2009, Protection of Trees on Development Sites.

Tree protection fencing shall be:

- Enclosed to the full extent of the TPZ (or as specified in the Recommendations and Tree Protection Plan).
- Cyclone chain wire link fence or similar, with lockable access gates.
- Certified and Inspected by the Project Arborist.
- Installed prior to the commencement of works.
- Prominently signposted with 300mm x 450mm boards stating "NO ACCESS - TREE PROTECTION ZONE".

C2 Crown protection

Tree crowns/canopy may be injured or damaged by machinery such as; excavators, drilling rigs, trucks, cranes, plant and vehicles. Where crown protection is required, it will usually be located at least one meter outside the perimeter of the crown.

Crown protection may include the installation of a physical barrier, pruning selected branches to establish clearance, or the tying/bracing of branches.

C3 Trunk protection

Where provision of tree protection fencing is impractical or must be temporarily removed, truck protection shall be installed for the nominated trees to avoid accidental mechanical damage.

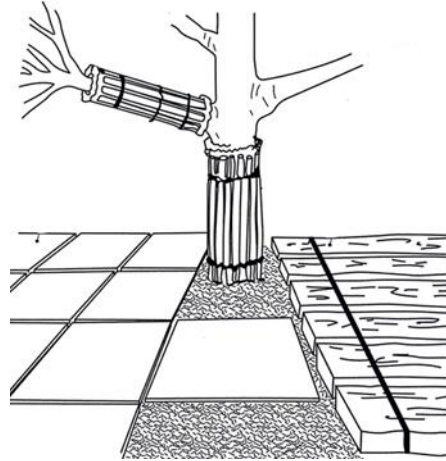
The removal of bark or branches allows the potential ingress of micro-organisms which may cause decay. Furthermore, the removal of bark restricts the trees' ability to distribute water, mineral ions (solutes), and glucose.

Trunk protection shall consist of a layer of either carpet underfelt, geotextile fabric or similar wrapped around the trunk, followed by 1.8 m lengths of softwood timbers aligned vertically and spaced evenly around the trunk (with an approx. 50 mm gap between the timbers).

The timbers must be secured using galvanised hoop strap (aluminium strapping). The timbers shall be wrapped around the trunk but not fixed to the tree, as this will cause injury/damage to the tree.



Tree protection fencing



Trunk protection fencing

C4 Ground protection

Tree roots are essential for the uptake/absorption of water, oxygen and mineral ions (solutes). It is essential to prevent the disturbance of the soil beneath the dripline and within the TPZ of trees that are to be retained. Soil compaction within the TPZ will adversely affect the ability of roots to function correctly.

If temporary access for machinery is required within the TPZ ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Ground protection may include a permeable membrane such as geotextile fabric beneath a layer of mulch, crushed rock or rumble boards.

If the grade is to be raised within the TPZ, the material should be coarser or more porous than the underlying material.

C5 Root protection and investigation

If incursions/excavation within the TPZ are unavoidable, root investigation may be needed to determine the extent and location of roots within the area of construction activity. The location and distribution of roots are found through non-destructive excavation (NDE) methods such as hydro-vacuum excavation (sucker truck), air spade and manual excavation. Root investigation does not guarantee the retention of the tree.

If the project arborist identifies conflicting roots that requiring pruning, they must be pruned with a sharp implement such as; secateurs, pruners, handsaws or a chainsaw back to undamaged tissue. The final cut must be a clean cut.

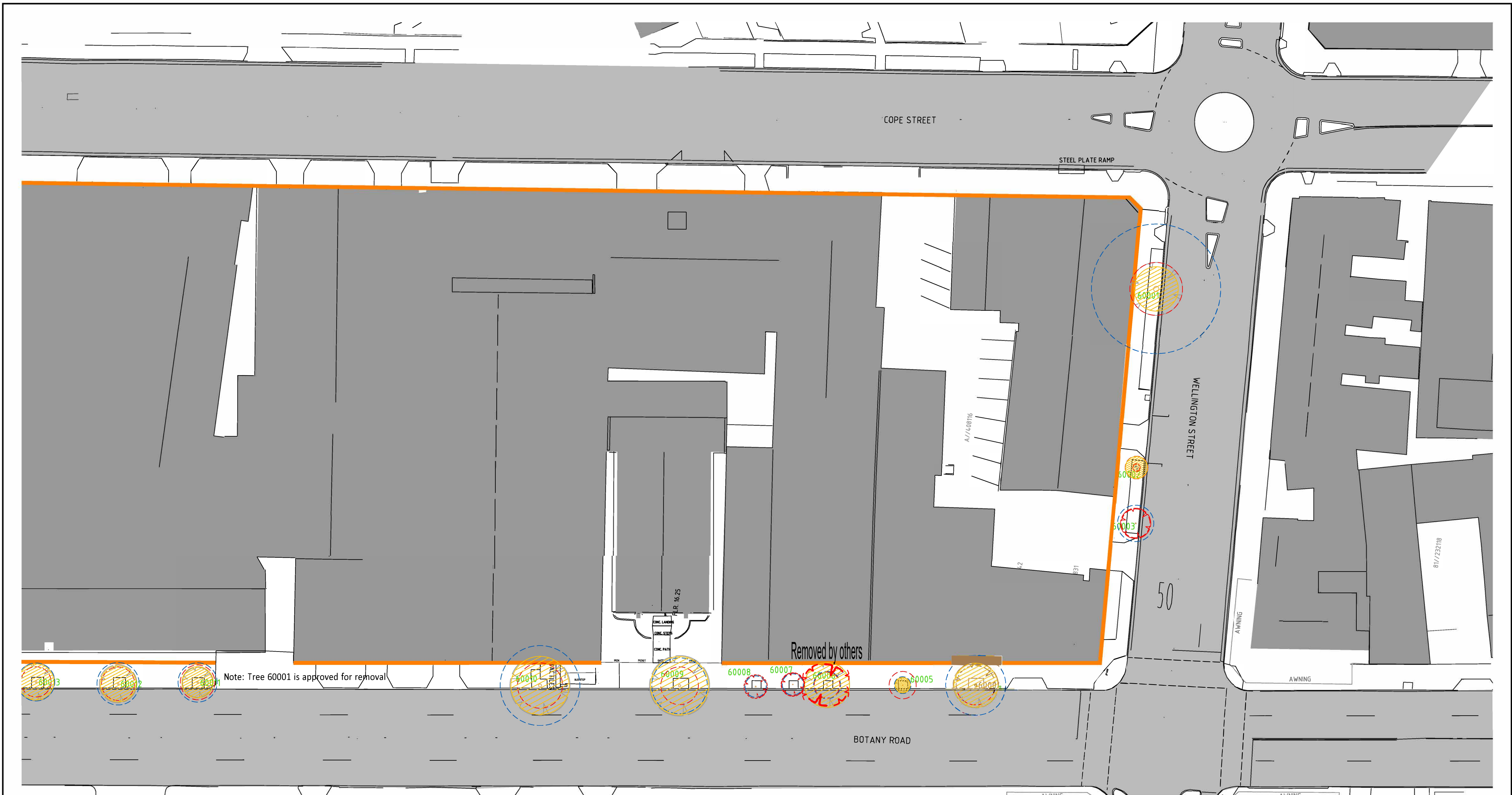
C6 Underground services

All underground services should be routed outside of the TPZ. If underground services need to be installed within the TPZ, they should be installed using horizontal directional drilling (HDD). The horizontal drilling/boring must be at minimum depth of 600 mm below grade. Trenching for services is to be regarded as “excavation”.



Appendix K - Waterloo

- Appendix K1 – Tree Impact Assessment Plan
- Appendix K2 - Arborist Tree Survey Report(s)
- Appendix K3 - Site Survey Drawing(s)



LEGEND

SYMBOL	DESCRIPTION	TREES	DESCRIPTION
	A CLASS HOARDING		EXISTING TREE TO BE REMOVED
	B CLASS HOARDING		EXISTING TREE TO BE PRUNED
	VEHICULAR ACCESS GATE		TREE PROTECTION ZONE
	SHADE CLOTH TO ATF FENCE		STRUCTURAL ROOT ZONE
	SHADE CLOTH TO EXISTING FENCE		

NOTE:

- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION.
- ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST

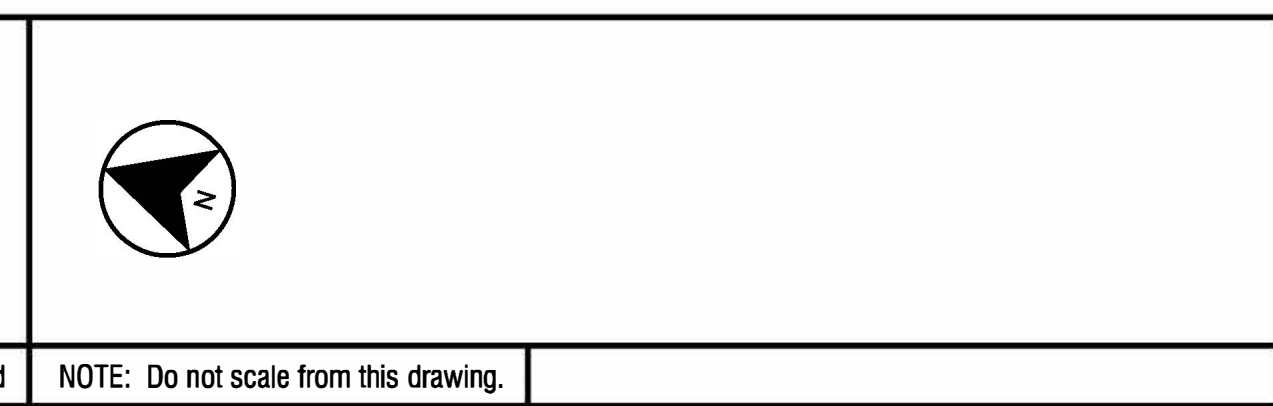
WATERLOO STATION
 URBAN DESIGN
 TREE IMPACT ASSESSMENT PLAN
 SHEET 1

STATUS: FOR INFORMATION ONLY | SHEET 1 OF 2 | ©
 NWRL Drg No. NWRLSRT-NWR-SWS-UD-DWG-000001 | NWRL REV. A

REV.	BY	DATE	DESCRIPTION	APPD.
A		15/02/2018	UPDATE TREE 60008	
			PREVIOUS REVISION AS NWRLSRT-PBA-SWS-UD-DWG-841222	

SCALES
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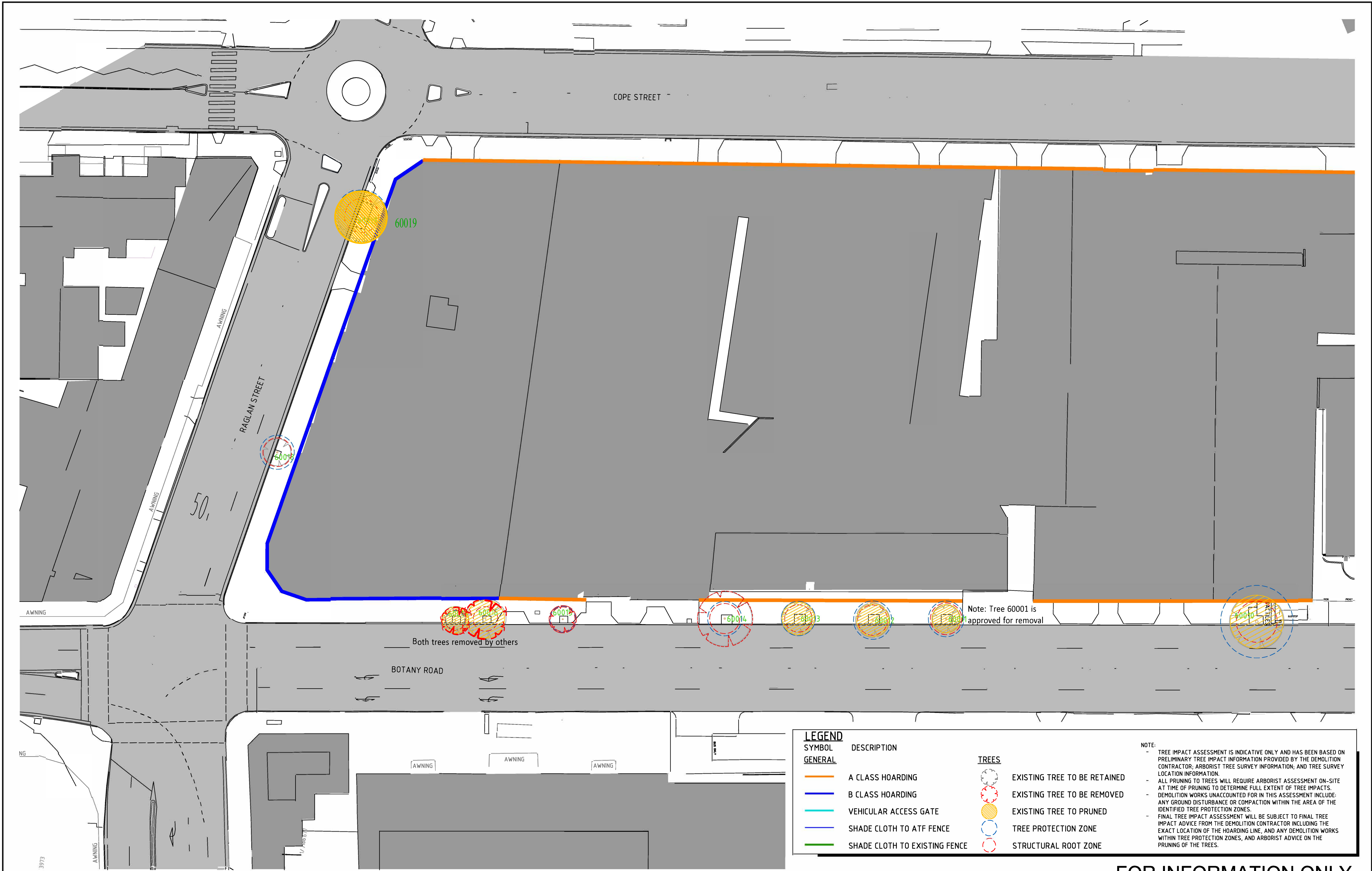
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CLIENT

Service Providers

DRAWN _____
 DESIGNED _____
 DRG CHECK _____
 DESIGN CHECK _____
 APPROVED _____



LEGEND

SYMBOL

GENERAL

- A CLASS HOARDING
- B CLASS HOARDING
- VEHICULAR ACCESS GATE
- SHADE CLOTH TO ATF FENCE
- SHADE CLOTH TO EXISTING FENCE

TREES

- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO PRUNED
- TREE PROTECTION ZONE
- STRUCTURAL ROOT ZONE

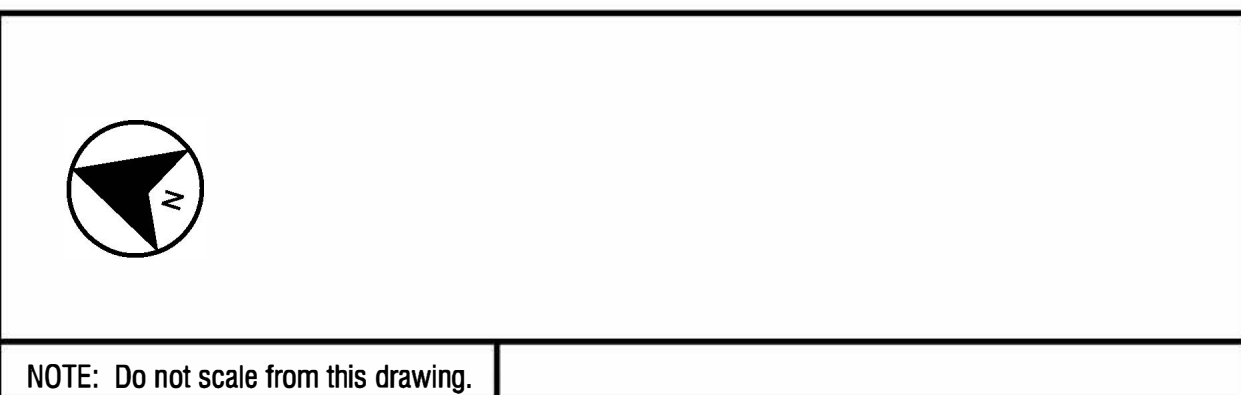
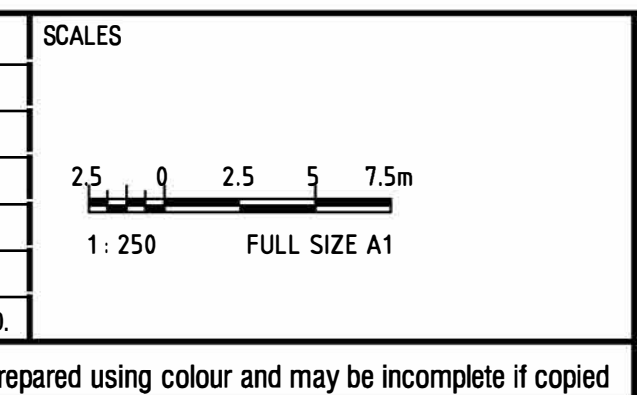
NOTE:

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SYDNEY METRO CITY & SOUTHWEST
 WATERLOO STATION
 URBAN DESIGN
 TREE IMPACT ASSESSMENT PLAN
 SHEET 2

REV.	BY	DATE	DESCRIPTION	APPD.
A		15/02/2018	UPDATE TREE 60008	
			PREVIOUS REVISION AS NWRLSRT-PBA-SWS-UD-DWG-841223	



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SERVICE PROVIDERS

DRAWN	_____
DESIGNED	_____
DRG CHECK	_____
DESIGN CHECK	_____
APPROVED	_____

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
1	Melaleuca quinquenervia	M	13	11	485	1125	8.6	3.5	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, extensive exposed surface roots	2a
	<i>Broad leaf paper-bark</i>					530	Area m2	232			
2	Tristaniopsis laurina	Y	2.75	1	20	43	0.2	1.5	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Water gum</i>						Area m2	0			
3	Tristaniopsis laurina	M	4	4	98	267	2.4	1.9	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
	<i>Water gum</i>					2x120	Area m2	18			
4	Platanus orientalis 'Digitata'	M	6	7	332	553	4	2.6	2	Street tree, deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2a
	<i>Cut leaf plane</i>						Area m2	50			
5	Lophostemon confertus	M	6	2	91	225	1.1	1.8	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
	<i>Brushbox</i>						Area m2	4			
6	Robinia pseudoacacia 'Frisia'	M	6.5	8	150	210	1.8	1.7	2	Street tree, deciduous tree introduced to the site, good condition, fair condition, small branch and twig die back, structure and form modified by past pruning, aerial cables above/through crown	2a
	<i>Golden robinia</i>						Area m2	10			
7	Robinia pseudoacacia 'Frisia'	M	6	4	2x80	160	1.4	1.5	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
	<i>Golden robinia</i>						Area m2	6			
8	Robinia pseudoacacia 'Frisia'	M	6	5	122	172	1.5	1.6	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form modified by past pruning, aerial cables above/through crown	2a
	<i>Golden robinia</i>						Area m2	7			

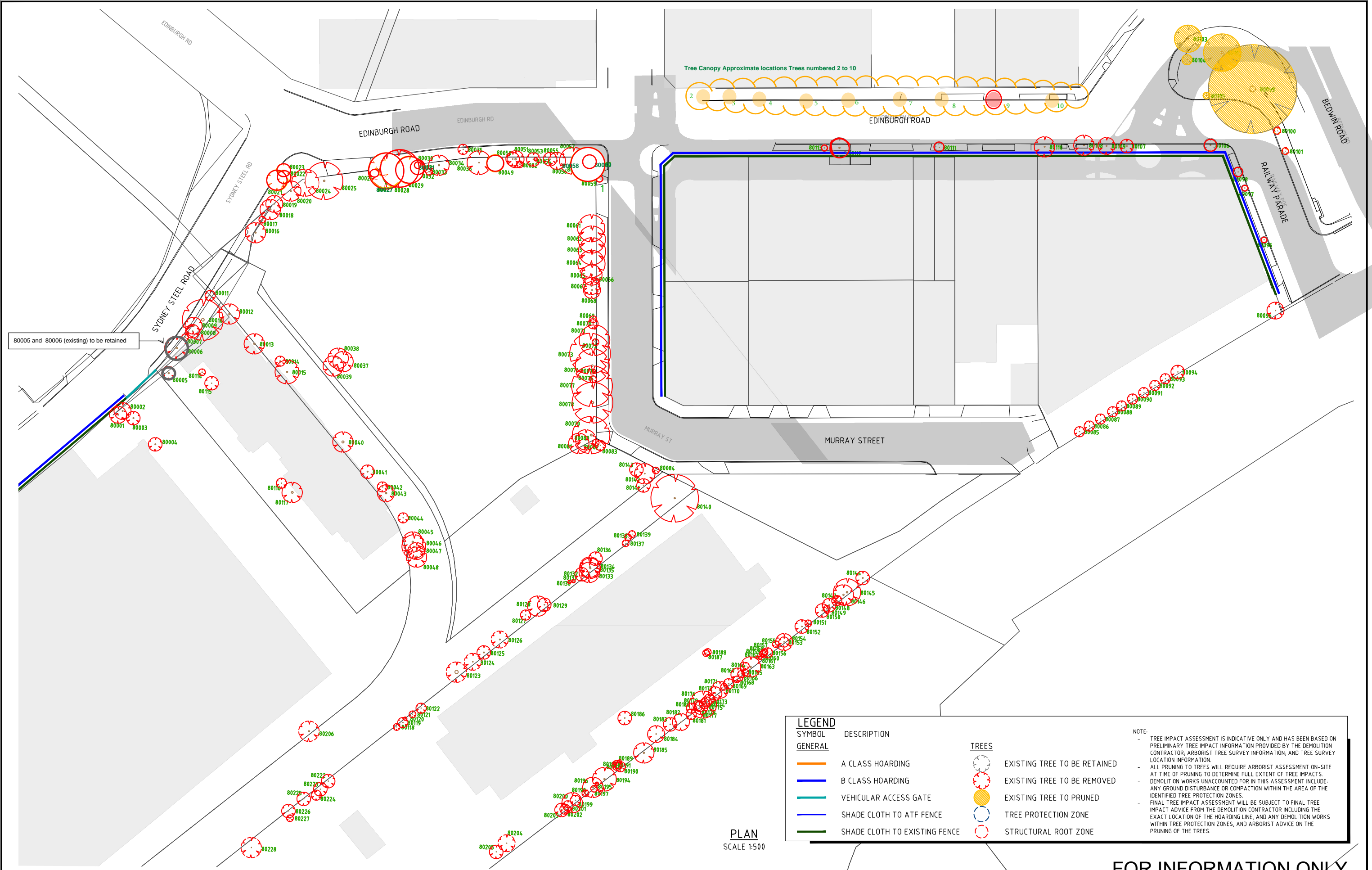
Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
9	Lophostemon confertus <i>Brushbox</i>	M	7.6	9	310	510	3.7	2.5	2	Street tree, evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown, tree has poor form.	3a
						Area m2	43	20			
10	Platanus orientalis 'Digitata' <i>Cut leaf plane</i>	M	6	12	440	810	5.3	3	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, aerial cables above/through crown	2a
						Area m2	88	28			
11	Lophostemon confertus <i>Brushbox</i>	M	7	4	215	435	2.6	2.3	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, no visible evidence of pests or disease, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	21	17			
12	Lophostemon confertus <i>Brushbox</i>	M	6	6.5	230	378	2.8	2.2	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	25	15			
13	Lophostemon confertus <i>Brushbox</i>	M	6.5	6.6	207	290	2.5	2	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, aerial cables above/through crown	2a
						Area m2	20	13			
14	Platanus acerifolia <i>London plane</i>	M	6.5	5	210	360	2.5	2.2	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, epicormic growth, trunk wound compartmentalised, aerial cables above/through crown	2a
						Area m2	20	15			
15	Robinia pseudoacacia 'Frisia' <i>Golden robinia</i>	M	7	4	158	243	1.9	1.8	2	Street tree, deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown, tree has poor form.	3a
						Area m2	11	10			
16	Robinia pseudoacacia 'Frisia' <i>Golden robinia</i>	M	6	5	152	230	1.8	1.8	2	Street tree, deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, aerial cables above/through crown	2a
						Area m2	10	10			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
17	Robinia pseudoacacia 'Frisia' <i>Golden robinia</i>	M	5.5	4	117	163	1.4	1.5	2	Street tree, deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, minor small branch and twig die back, aerial cables above/through crown	2a
						Area m2	6	7			
18	Lophostemon confertus <i>Brushbox</i>	M	4.5	6.5	210	355	2.5	2.1	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	20	14			
19	Lophostemon confertus <i>Brushbox</i>	M	9.5	10	318	508	3.8	2.5	2	Street tree, evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, aerial cables above/through crown, tree has poor form.	
						Area m2	45	20			

Appendix L - Marrickville

- Appendix L1 – Tree Impact Assessment Plan
- Appendix L2 - Arborist Tree Survey Report(s)
- Appendix L3 - Site Survey Drawing(s)
- Appendix L4 – Arborist Tree Survey Report (Utilities)
- Appendix L5 – Arborist Tree Survey Report (Edinburgh Road)

Cad File: E:\Work\InfoBackup\Desktop 03 Apr 2018\TA\Letters\Trees\20180502-Marrickville\NWRLSRT-PBA-WMS-UD-DWG-872222.dwg
 Plot Date: 02/05/18 - 09:39
 100mm AT FULL SIZE



Tree Canopy Approximate locations Trees numbered 2 to 10

80005 and 80006 (existing) to be retained

LEGEND

SYMBOL	DESCRIPTION	TREES	DESCRIPTION
[Orange line]	A CLASS HOARDING	[Red circle]	EXISTING TREE TO BE RETAINED
[Blue line]	B CLASS HOARDING	[Red circle with cross]	EXISTING TREE TO BE REMOVED
[Green line]	VEHICULAR ACCESS GATE	[Yellow circle]	EXISTING TREE TO PRUNED
[Blue line with dots]	SHADE CLOTH TO ATF FENCE	[Blue circle]	TREE PROTECTION ZONE
[Green line with dots]	SHADE CLOTH TO EXISTING FENCE	[Red circle with dots]	STRUCTURAL ROOT ZONE

NOTE:

- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION.
- ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS. DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTION WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

PLAN
SCALE 1:500

FOR INFORMATION ONLY

REV.	BY	DATE	DESCRIPTION	APPD.
A		02/05/2018	UPDATED TREE IMPACT	
			PREVIOUS REVISION AS DRAWING NWRLSRT-PBA-WMS-UD-DWG-872222	

SCALES
1:500 FULL SIZE A1

Client: Transport for NSW

Plot Date: 02/05/18 - 09:39

NOTE: Do not scale from this drawing.

SERVICE PROVIDERS	DRAWN	DESIGNED	DRG CHECK	DESIGN CHECK	APPROVED
	_____	_____	_____	_____	_____

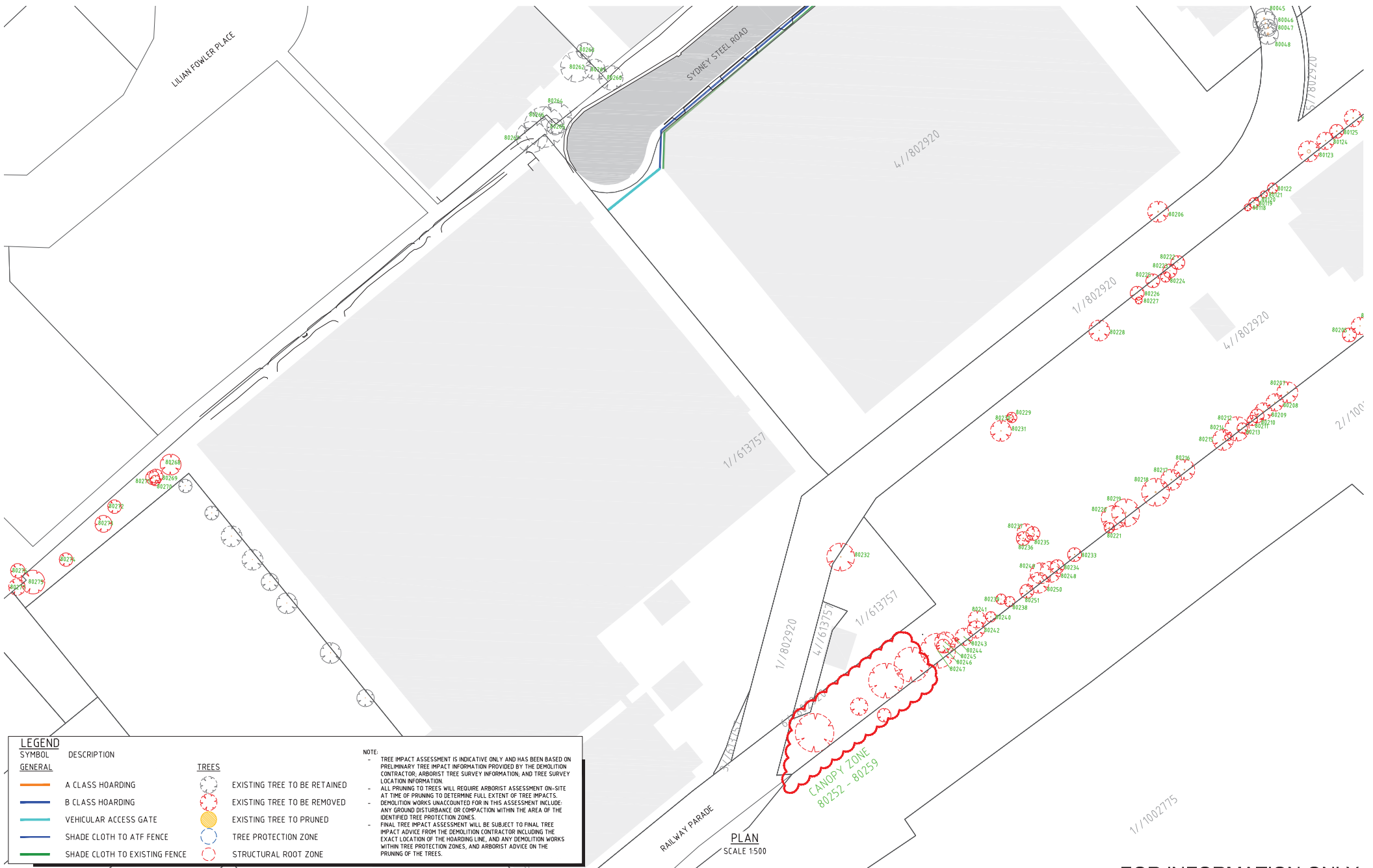
SYDNEY METRO CITY & SOUTHWEST

MARRICKVILLE
URBAN DESIGN
TREE IMPACT ASSESSMENT PLAN
SHEET 1

STATUS: FOR INFORMATION ONLY SHEET 1 OF 2

NWRL Drg No. NWRLSRT-NWR-WMS-UD-DWG-000001

Cadd File: C:\Sydney Metro\Projectwise\Drawing\Working\NWRLSRT-PBA-WMS-UD-DWG-872223.dwg
 Plot Date: 29/11/17 - 12:21
 100mm AT FULL SIZE



LEGEND

SYMBOL	DESCRIPTION	TREES	DESCRIPTION
[Orange line]	A CLASS HOARDING	[Green circle]	EXISTING TREE TO BE RETAINED
[Blue line]	B CLASS HOARDING	[Red circle]	EXISTING TREE TO BE REMOVED
[Cyan line]	VEHICULAR ACCESS GATE	[Yellow circle]	EXISTING TREE TO PRUNED
[Blue dashed line]	SHADE CLOTH TO ATF FENCE	[Blue circle]	TREE PROTECTION ZONE
[Green dashed line]	SHADE CLOTH TO EXISTING FENCE	[Red circle]	STRUCTURAL ROOT ZONE

NOTE:

- TREE IMPACT ASSESSMENT IS INDICATIVE ONLY AND HAS BEEN BASED ON PRELIMINARY TREE IMPACT INFORMATION PROVIDED BY THE DEMOLITION CONTRACTOR, ARBORIST TREE SURVEY INFORMATION, AND TREE SURVEY LOCATION INFORMATION.
- ALL PRUNING TO TREES WILL REQUIRE ARBORIST ASSESSMENT ON-SITE AT TIME OF PRUNING TO DETERMINE FULL EXTENT OF TREE IMPACTS.
- DEMOLITION WORKS UNACCOUNTED FOR IN THIS ASSESSMENT INCLUDE: ANY GROUND DISTURBANCE OR COMPACTON WITHIN THE AREA OF THE IDENTIFIED TREE PROTECTION ZONES.
- FINAL TREE IMPACT ASSESSMENT WILL BE SUBJECT TO FINAL TREE IMPACT ADVICE FROM THE DEMOLITION CONTRACTOR INCLUDING THE EXACT LOCATION OF THE HOARDING LINE, AND ANY DEMOLITION WORKS WITHIN TREE PROTECTION ZONES, AND ARBORIST ADVICE ON THE PRUNING OF THE TREES.

PLAN
SCALE 1:500

REV.	BY	DATE	DESCRIPTION	APPD.
D	EW	29.11.17	ISSUED FOR INFORMATION	MW
C	MJ	22.11.17	ISSUED FOR INFORMATION	MW
B	JS	05.10.17	ISSUED FOR INFORMATION	MW
A	JP	16/06/2017	ISSUED FOR INFORMATION	MW

SCALES



Plot Date: 29/11/17 - 12:21

NOTE: Do not scale from this drawing.



PARSONS BRINCKERHOFF
AECOM
COX HASSELL

SERVICE PROVIDERS

DRAWN: JOHN PARGETER
 DESIGNED: _____
 DRG CHECK: ANTHONY CHARLESWORTH
 DESIGN CHECK: _____
 APPROVED: JAN MCILVAINE WHITTON

FOR INFORMATION ONLY

SYDNEY METRO CITY & SOUTHWEST
 MARRICKVILLE
 URBAN DESIGN
 TREE IMPACT ASSESSMENT PLAN
 SHEET 2

STATUS: FOR INFORMATION ONLY SHEET 2 OF 2

NWRL Dig No: NWRLSRT-PBA-WMS-UD-DWG-872223

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE			
1	Plumeria rubra	M	3	4	45	170	1.8	1.6	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, evergreen tree indigenous to the locality	2a			
	<i>Frangipani</i>				83							Area m2	10	8
					115									
2	Plumeria rubra	M	3	3	2x105	238	1.8	1.8	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning	2a			
	<i>Frangipani</i>											Area m2	10	10
3	Callistemon viminalis	M	4	4	127	315	3.3	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, structure & form modified by past pruning	2a			
	<i>Weeping bottlebrush</i>				2x140							Area m2	34	13
					150									
4	Plumeria rubra	M	3	3	2x55	200	2.1	1.7	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning	2a			
	<i>Frangipani</i>				2x75							Area m2	14	9
					2x85									
5	Callistemon viminalis	M	6	8	198	403	4.2	2.3	2	Evergreen native tree introduced to the site, good to fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back	2a			
	<i>Weeping bottlebrush</i>				285							Area m2	55	17
6	Melaleuca lineariifolia	M	7	7	530	550	6.4	2.6	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed south elevation, modified by past pruning	2a			
	<i>Snow in summer</i>											Area m2	129	21
7	Melaleuca lineariifolia	M	7	4	94	250	2.1	1.8	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, structure & form modified by past pruning	3a			
	<i>Snow in summer</i>				146							Area m2	14	10
8	Melaleuca lineariifolia	M	7	3.5	210	320	2.5	2.1	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, suppressed	3a			
	<i>Snow in summer</i>											Area m2	20	14

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
9	Melaleuca lineariifolia <i>Snow in summer</i>	M	7	4	159	400	3	2.3	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed, structure & form modified by past pruning		3a
					198	Area m2	28	17				
10	Eucalyptus botryoides <i>Bangalay</i>	M	17	25	1010	1520	12.1	3.9	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, modified by past pruning		2a
						Area m2	460	48				
11	Melaleuca lineariifolia <i>Snow in summer</i>	M	4	5	262	430	3.1	2.3	4	Evergreen native tree introduced to the site, very Poor condition, the species is not rare or endangered, canopy dieback and hazardous deadwood, 90% dead.		4b
						Area m2	30	17				
12	Melaleuca lineariifolia <i>Snow in summer</i>	M	5	6	360	680	6.5	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed west elevation, structure & form modified by past pruning		2e
					410	Area m2	133	25				
13	Melaleuca lineariifolia <i>Snow in summer</i>	M	9	8	284	600	5	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed west elevation, structure & form modified by past pruning		2a
					300	Area m2	79	23				
14	Citrus spp <i>Citrus tree</i>	M	4.5	3.5	130	313	2.3	2	2	Evergreen tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning		2a
					140	Area m2	17	13				
15	Melaleuca lineariifolia <i>Snow in summer</i>	M	8.5	5.5	450	590	5.4	2.7	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning		2a
						Area m2	92	23				
16	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	9	8	494	750	5.9	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning		2a
						Area m2	109	26				

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
17	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	SM	7	6	94	270	2.2	1.9	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, canopy dieback and hazardous deadwood, structure & form modified by past pruning		3a
					157	Area m2	15	11				
18	Celtis occidentalis <i>Hackberry</i>	M	10	7	235	660	4.2	2.8	4	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, invasive species.		2c
					258	Area m2	55	25				
19	Celtis occidentalis <i>Hackberry</i>	M	9	9	217	364	2.6	2.2	4	Deciduous tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species		2c
						Area m2	21	15				
20	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	10	8	316	497	3.8	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	45	20				
21	Casuarina glauca <i>Swamp oak</i>	M	16	10	393	770	6.8	3	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back		2a
					408	Area m2	145	28				
22	Casuarina glauca <i>Swamp oak</i>	M	15	7	366	556	4.4	2.6	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back		2a
						Area m2	61	21				
23	Casuarina glauca <i>Swamp oak</i>	M	14.5	6	280	495	3.4	2.5	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	36	20				
24	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	10	7	410	520	4.9	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	75	20				

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description	Condition and Comments	SULE
25	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	9	12	465	730	5.6	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	99	26				
26	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	6	4	287	357	3.4	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	36	14				
27	Eucalyptus grandis <i>Flooded gum</i>	M	18	10	513	625	6.2	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, no visible evidence of pests or disease, aerial cables above/through crown		2a
						Area m2	121	23				
28	Eucalyptus microcorys <i>Tallow wood</i>	M	20	14	730	1000	8.8	3.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, thinning crown, aerial cables above/through crown		2e
						Area m2	243	34				
29	Eucalyptus tereticornis <i>Forest Red gum</i>	M	16.5	9	495	820	5.9	3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning, aerial cables above/through crown		2a
						Area m2	109	28				
30	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	10.5	6	480	543	5.8	2.6	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown		2a
						Area m2	106	21				
31	Cupaniopsis anacardioides <i>Tuckeroo</i>	SM	4	3	77	148	0.9	1.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown		2a
						Area m2	3	7				
32	Cupaniopsis anacardioides <i>Tuckeroo</i>	Y	40	1	40	72	0.5	1.5	2	Evergreen native tree introduced to the site, good condition, suppressed, aerial cables above/through crown		3a
						Area m2	1	7				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
33	Melaleuca stypheloides <i>Prickly paper-bark</i>	M	0	0	0	0	0	0		Dead	4b
						Area m2	0	0			
34	Melaleuca stypheloides <i>Prickly paper-bark</i>	M	9	7	3x120	490	4.2	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, aerial cables above/through crown	2a
					2x150	Area m2	55	20			
					180						
35	Acmena smithii minor <i>Dwarf lilly pilly</i>	SM	3.5	3	3x52	180	1.4	1.6	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, modified by past pruning, aerial cables above/through crown	2a
					80	Area m2	6	8			
36	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	7	6	2x110	308	2.8	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
					175	Area m2	25	13			
37	Celtis occidentalis <i>Hackberry</i>	M	7	6	Multi stem	345	3	2.1	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, growing in confined space, self sown.	3e
						Area m2	28	14			
38	Celtis occidentalis <i>Hackberry</i>	M	5	4	Multi stem	300	3	2	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, growing in confined space, self sown.	3e
						Area m2	28	13			
39	Acer palmatum <i>Japanese maple</i>	M	4	4	Multi stem	250	3	1.8	3	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, growing in confined space.	
						Area m2	28	10			
40	Melaleuca lineariifolia <i>Snow in summer</i>	M	8	6	410	805	7.2	3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, structure & form modified by past pruning.	2a
					440	Area m2	163	28			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE			
41	Melaleuca lineariifolia	M	6	5	120	374	3.1	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, structure & form modified by past pruning.	2a			
	<i>Snow in summer</i>				145							Area m2	30	15
					180									
42	Callistemon viminalis	M	4	5	2x40	300	2.3	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, structure & form modified by past pruning.	2a			
	<i>Weeping bottlebrush</i>				2x130							Area m2	17	13
43	Melaleuca lineariifolia	M	9	8	540	730	6.5	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning.	2a			
	<i>Snow in summer</i>											Area m2	133	26
44	Acacia decurrens	M	7	4	135	240	1.6	1.8	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, trunk wound.	3a			
	<i>Green wattle</i>											Area m2	8	10
45	Melaleuca stypheloides	M	11	9	2x160	520	4.5	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning.	2a			
	<i>Prickly paper-bark</i>				175							Area m2	64	20
					237									
46	Melaleuca stypheloides	M	12	6	120	375	2.6	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed.	2a			
	<i>Prickly paper-bark</i>				178							Area m2	21	15
47	Melaleuca stypheloides	M	12.5	6	135	385	3.8	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, suppressed.	2a			
	<i>Prickly paper-bark</i>				2x205							Area m2	45	15
48	Melaleuca stypheloides	M	13	10	150	600	3.5	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, structure & form modified by past pruning.	2a			
	<i>Prickly paper-bark</i>				2x175							Area m2	38	23
					2.250									

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
49	Melaleuca stypheloides <i>Prickly paper-bark</i>	M	7	8	205	310	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, structure & form modified by past pruning.	2a
						Area m2	20	13			
50	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	7	6	193	290	2.3	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	17	13			
51	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	13	7	460	633	5.5	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	95	23			
52	Cupaniopsis anacardioides <i>Tuckeroo</i>	Y	4	2	0	0	0	0	N/A	Sucker growing from felled tree	
						Area m2	0	0			
53	Lophostemon confertus <i>Brushbox</i>	M	12	6	304	350	3.6	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	41	14			
54	Celtis occidentalis <i>Hackberry</i>	SM	43	3	Multi stem	310	3	2	4	Deciduous tree introduced to the site, sucker growing from felled tree.	
						Area m2	28	13			
55	Eucalyptus microcorys <i>Tallow wood</i>	SM	6	3	170	205	2	1.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	13	9			
56	Lophostemon confertus <i>Brushbox</i>	M	8	9	296	44	3.6	1.5	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	41	7			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
57	Eucalyptus microcorys <i>Tallow wood</i>	M	16	10	580	820	7	3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning, aerial cables above/through crown	2a
						Area m2	154	28			
58	Melaleuca linearifolia <i>Snow in summer</i>	M	6	3	275	475	3.3	2.4	2	Evergreen native tree introduced to the site, poor condition, structure and form typical of the species, small branch and twig die back, structure & form modified by past pruning, aerial cables above/through crown	3e
						Area m2	34	18			
59	Eucalyptus microcorys <i>Tallow wood</i>	M	16	10	363	830	4.4	3.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	61	30			
60	Lophostemon confertus <i>Brushbox</i>	SM	7	5	Multi stem	460	5	2.4	3	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, sucker with co-dominant stems, strong union, small branch and twig die back, aerial cables above/through crown	4c
						Area m2	79	18			
61	Eucalyptus microcorys <i>Tallow wood</i>	M	12	13	473	670	5.7	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, minor small branch and twig die back	2a
						Area m2	102	25			
62	Eucalyptus microcorys <i>Tallow wood</i>	M	13	12	445	610	5.3	2.7	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	88	23			
63	Eucalyptus microcorys <i>Tallow wood</i>	M	12	12.5	425	575	5.1	2.6	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	82	21			
64	Eucalyptus microcorys <i>Tallow wood</i>	M	14	13	510	653	6.1	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	117	25			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
65	Eucalyptus microcorys <i>Tallow wood</i>	M	13.5	13	520	658	6.2	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	121	25			
66	Lophostemon confertus <i>Brushbox</i>	SM	5	3	Multi stem	360	0	2.2	3	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, sucker with co-dominant stems, strong union, structure & form modified by past pruning	4c
						Area m2	0	15			
67	Eucalyptus species <i>Gum tree</i>	M	10	9	322	385	3.9	2.2	2	Evergreen native tree introduced to the site, fair condition, trunk wound south elevation, modified by past pruning, poor structure and form.	3a
						Area m2	48	15			
68	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	8.5	6	355	465	4.3	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back	2a
						Area m2	58	18			
69	Callistemon viminalis <i>Weeping bottlebrush</i>	SM	3	3	Multi stem	380	0	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
						Area m2	0	15			
70	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	7	5	42	520	1.6	2.5	3	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning	3a
					60	Area m2	8	20			
					110						
71	Eucalyptus microcorys <i>Tallow wood</i>	M	12	15	600	750	7.2	2.9	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	163	26			
72	Acacia decurrens <i>Green wattle</i>	M	4	4	90	167	1.7	1.6	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, modified by past pruning	3a
					105	Area m2	9	8			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
73	Eucalyptus microcorys <i>Tallow wood</i>	M	14	14	585	736	7	2.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	154	26			
74	Eucalyptus microcorys <i>Tallow wood</i>	M	13	14	550	642	6.6	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	137	23			
75	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	13	3	Multi stem	250	5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	3a
						Area m2	79	13			
76	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	15	5	Multi stem	430	6	2.3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union	3a
						Area m2	113	17			
77	Eucalyptus microcorys <i>Tallow wood</i>	M	15	15	616	830	7.4	3.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	172	30			
78	Eucalyptus microcorys <i>Tallow wood</i>	M	14	15	620	800	7.4	3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	172	28			
79	Eucalyptus microcorys <i>Tallow wood</i>	M	15	15	676	836	8.1	3.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	206	30			
80	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	11	5	280	450	3.4	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	36	18			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
81	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	10	6	460	610	5.5	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	95	23			
82	Banksia integrifolia <i>Coast banksia</i>	Y	2	2	Multi stem	100	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
						Area m2	20	13			
83	Banksia integrifolia <i>Coast banksia</i>	Y	3	3	Multi stem	200	3	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered co dominant stems strong union	2a
						Area m2	28	13			
84	Celtis occidentalis <i>Hackberry</i>	SM	5	7	100	150	2.5	2	4	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, invasive species	2c
						Area m2	20	13			
85	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
86	Nerium oleander <i>Oleander shrub</i>	M	3	0		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
87	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
88	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
89	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
90	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
91	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
92	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
93	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
94	Nerium oleander <i>Oleander shrub</i>	M	3	3		0	0	0		Evergreen shrub	2a
						Area m2	0	0			
95	Hibiscus rosa sinensis <i>Hibiscus - Rose of China</i>	M	3	3		0	0	0		Evergreen shrub	3a
						Area m2	0	0			
96	Acmena smithii minor <i>Dwarf lilly pilly</i>	M	3.5	2	115	215	2.5	2	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species small branch and twig die back	2a
						Area m2	20	13			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
97	<i>Acmena smithii</i> minor <i>Dwarf lilly pilly</i>	M	4	3	70 80	213 Area m2	2.5 20	2 13	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning	2a
98	<i>Acmena smithii</i> minor <i>Dwarf lilly pilly</i>	M	3	3	142	295 Area m2	2.5 20	2.5 20	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, small branch and twig die back, structure & form modified by past pruning	2a
99	<i>Ficus microcarpa</i> var <i>hillii</i> <i>Hill's weeping fig</i>	M	20	26	1420	2350 Area m2	15 707	4.7 69	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, structure & form modified by past pruning	2a
100	<i>Elaeocarpus reticulatus</i> <i>Blueberry ash</i>	SM	4	2	62	118 Area m2	2.5 20	2 13	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
101	<i>Elaeocarpus reticulatus</i> <i>Blueberry ash</i>	SM	3	2	74	105 Area m2	2.5 20	2 13	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
102	<i>Lophostemon confertus</i> <i>Brushbox</i>	M	11	14	315 346 453	715 Area m2	7.8 191	2.9 26	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, modified by past pruning	2a
103	<i>Corymbia citriodora</i> <i>Lemon scented gum</i>	M	9	10.5	478	820 Area m2	5.7 102	3 28	2	Street tree, evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, canopy dieback and hazardous deadwood, small branch and twig die back	2e
104	<i>Elaeocarpus reticulatus</i> <i>Blueberry ash</i>	M	5	4	125	165 Area m2	1.5 7	1.6 8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	2a

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
105	Elaeocarpus reticulatus <i>Blueberry ash</i>	M	5	4	127	147	1.5	1.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	7	7			
106	Callistemon viminalis <i>Weeping bottlebrush</i>	M	7	6.5	165	466	4.2	2.4	2	Street tree, evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, epicormic growth, structure and form modified by past pruning, aerial cables above/through crown	2e
					187	Area m2	55	18			
					240						
107	Callistemon viminalis <i>Weeping bottlebrush</i>	M	7	4.5	225	395	2.7	2.2	3	Street tree, evergreen native tree introduced to the site, average condition, the species is not rare or endangered, structure & form modified by past pruning, small branch and twig die back, epicormic growth, aerial cables above/through crown	3a
						Area m2	23	15			
108	Melaleuca quinquenervia <i>Broad leaf paper-bark</i>	M	8	7	245	483	2.9	2.4	2	Street tree, evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	26	18			
109	Callistemon viminalis <i>Weeping bottlebrush</i>	M	9	6.5	214	575	3.9	2.6	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
					249	Area m2	48	21			
110	Callistemon viminalis <i>Weeping bottlebrush</i>	M	9	7	315	517	3.8	2.5	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning	2a
						Area m2	45	20			
111	Acmena smithii minor <i>Dwarf lilly pilly</i>	SM	4	5	75	250	2.5	2	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
					3x105	Area m2	20	13			
112	Melaleuca bracteata 'Rev. Green' <i>Revolution Green</i>	M	8	7	383	528	4.6	2.5	2	Street tree, evergreen native tree introduced to the site, good to fair condition, the species is not rare or endangered, epicormic growth, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	66	20			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
113	Elaeocarpus reticulatus <i>Blueberry ash</i>	Y	3	2.5	65	152	2.5	2	2	Street tree, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	20	13			
114	Ceratopetalum gummiferum <i>NSW Christmas bush</i>	M	4	2.5	85	320	2.5	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, modified by past pruning	2a
					2x95	Area m2	20	14			
					115						
115	Plumeria rubra <i>Frangipani</i>	M	3	4	Multi tem	225	3	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
						Area m2	28	13			
116	Eucalyptus tereticornis <i>Forest Red gum</i>	M	18	8	690	1130	8.3	3.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	2a
						Area m2	216	38			
117	No tree on site -----		0	0		0	0	0			
						Area m2	0				
118	Callistemon viminalis <i>Weeping bottlebrush</i>	M	3	3	Multi stem	260	3	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
						Area m2	28	13			
119	Hibiscus rosa-sinensis <i>Hibiscus - Rose of China</i>	M	0	0		0	0	0		Evergreen shrub	
						Area m2	0				
120	Callistemon viminalis <i>Weeping bottlebrush</i>	M	3	2	30	200	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
					120	Area m2	20	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
121	Plumeria rubra	M	2	2.5	70	125	2.5	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, tree stressed, modified by past pruning	2a
	<i>Frangipani</i>				90	Area m2	20	13			
122	Plumeria rubra	M	3	3	Multi tem	158	3	2	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, modified by past pruning	2a
	<i>Frangipani</i>					Area m2	28	13			
123	Phoenix canariensis	M	5	8	1050	1115	12.6	3.5	4	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, invasive species.	2c
	<i>Canary Island date palm</i>					Area m2	499	38			
124	Cinnamomum camphora	M	8	4	225	458	2.7	2.4	4	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, invasive species	2c
	<i>Camphor laurel</i>					Area m2	23	18			
125	Syncarpia glomulifera	M	9	4	313	380	3.8	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Turpentine</i>					Area m2	45	15			
126	Schinus areira	M	5	5	187	500	4	2.5	3	Evergreen tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, modified by past pruning	3a
	<i>Pepper corn</i>				275	Area m2	50	20			
127	Callistemon viminalis	M	3	3	Multi stem	250	4	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union	2a
	<i>Weeping bottlebrush</i>					Area m2	50	13			
128	Acacia cyanophylla	M	4	7	87	165	1.7	1.6	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union	3a
	<i>Orange wattle</i>				110	Area m2	9	8			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition	Comments	SULE
129	<i>Syncarpia glomulifera</i> <i>Turpentine</i>	M	6	3.5	200	415	2.4	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	18	17				
130	<i>Acacia floribunda</i> <i>Sally wattle</i>	Y	0	0		0	0	0		Self sown apling		3a
						Area m2	0	0				
131	<i>Acacia floribunda</i> <i>Sally wattle</i>	Y	0	0		0	0	0		Self sown sapling		3a
						Area m2	0	0				
132	<i>Schinus areira</i> <i>Pepper corn</i>	SM	4	4	145	268	1.7	1.9	3	Evergreen tree introduced to the site, average condition, the species is not rare or endangered, structure & form modified by past pruning, suppressed		3a
						Area m2	9	11				
133	<i>Syncarpia glomulifera</i> <i>Turpentine</i>	M	9	8	320	445	3.8	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	45	18				
134	<i>Cinnamomum camphora</i> <i>Camphor laurel</i>	M	9	6	160	310	2.9	2	4	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, invasive species		2c
					180	Area m2	26	13				
135	<i>Cinnamomum camphora</i> <i>Camphor laurel</i>	M	8	5.5	210	320	2.5	2.1	4	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, invasive species		2c
						Area m2	20	14				
136	<i>Cinnamomum camphora</i> <i>Camphor laurel</i>	M	8	4	180	490	3.4	2.5	4	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, invasive species		2c
					217	Area m2	36	20				

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition	Comments	SULE
137	Acacia decurrens <i>Green wattle</i>	SM	0	0		0	0	0		Self sown sapling		3a
						Area m2	0	0				
138	Acacia decurrens <i>Green wattle</i>	Y	0	0		0	0	0		Self sown sapling		3a
						Area m2	0	0				
139	Acacia decurrens <i>Green wattle</i>	Y	0	0		0	0	0		Self sown sapling		3a
						Area m2	0	0				
140	Celtis occidentalis <i>Hackberry</i>	M	12	16	2x376	1600	8.2	4	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back		2a
					435	Area m2	211	50				
141	Celtis occidentalis <i>Hackberry</i>	M	6	3	117	270	1.4	1.9	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species		2a
						Area m2	6	11				
142	Banksia integrifolia <i>Coast banksia</i>	M	6	5	105	280	2.8	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed		2e
					2x150	Area m2	25	13				
143	Banksia integrifolia <i>Coast banksia</i>	M	4.5	3.5	2x145	316	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union		2a
						Area m2	20	13				
144	Casuarina cunninghamiana <i>River she oak</i>	M	8	4	295	355	3.5	2.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, small branch and twig die back, aerial cables above/through crown		2a
						Area m2	38	14				

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
145	Casuarina cunninghamiana <i>River she oak</i>	M	12	8	517	810	6.2	3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	121	28			
146	Casuarina cunninghamiana <i>River she oak</i>	M	12	8	457	600	5.5	2.7	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	95	23			
147	Casuarina cunninghamiana <i>River she oak</i>	M	7	4	190	270	2.5	2	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, storm damage, aerial cables above/through crown	3a
						Area m2	20	13			
148	Eucalyptus sideroxylon <i>Iron bark</i>	M	7	5	277	345	3.3	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	34	14			
149	Eucalyptus sideroxylon <i>Iron bark</i>	OM	5	3	197	258	2.5	2	4	Evergreen native tree introduced to the site, very Poor condition, the species is not rare or endangered, storm damage, tree stressed, decline in vigour, aerial cables above/through crown	4b
						Area m2	20	13			
150	Eucalyptus sideroxylon <i>Iron bark</i>	M	11	6	320	415	3.8	2.3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, modified by past pruning, poor structure and form, aerial cables above/through crown	2e
						Area m2	45	17			
151	Acacia decurrens <i>Green wattle</i>	M	7	3	152	203	2.5	2	4	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, canopy dieback and hazardous deadwood, tree stressed, decline in vigour, aerial cables above/through crown	4b
						Area m2	20	13			
152	Acacia decurrens <i>Green wattle</i>	M	7	5	202	263	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	3a
						Area m2	20	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
153	Casuarina cunninghamiana <i>River she oak</i>	SM	6	3	60	360	2.5	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
					2x125	Area m2	20	15			
154	Casuarina cunninghamiana <i>River she oak</i>	M	7	5	2x50	475	2.7	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
					2x90	Area m2	23	18			
					2x125						
155	Casuarina cunninghamiana <i>River she oak</i>	Y	5	2.5	50	83	2.5	2	2	Self sown sapling	2a
						Area m2	20	13			
156	Casuarina cunninghamiana <i>River she oak</i>	Y	7	3.5	125	325	2.5	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
					145	Area m2	20	14			
157	Casuarina cunninghamiana <i>River she oak</i>	SM	7	2	Multi stem	210	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	20	13			
158	Casuarina cunninghamiana <i>River she oak</i>	SM	7	2	113	160	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
						Area m2	20	13			
159	Casuarina cunninghamiana <i>River she oak</i>	SM	7	2.5	160	205	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, aerial cables above/through crown	2a
						Area m2	20	13			
160	Casuarina cunninghamiana <i>River she oak</i>	SM	6	2	90	120	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, aerial cables above/through crown	2a
						Area m2	20	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
161	Casuarina cunninghamiana <i>River she oak</i>	SM	6	1.5	68	115	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, aerial cables above/through crown	2a
						Area m2	20	13			
162	Casuarina cunninghamiana <i>River she oak</i>	Y	4.5	3	2x60	180	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	20	13			
163	Casuarina cunninghamiana <i>River she oak</i>	M	12	7	500	617	6	2.7	3	Evergreen native tree introduced to the site, average to poor condition, the species is not rare or endangered, structure and form typical of the species, canopy dieback and hazardous deadwood, modified by past pruning, aerial cables above/through crown	3e
						Area m2	113	23			
164	Casuarina cunninghamiana <i>River she oak</i>	SM	6	2.5	20	130	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
					30	Area m2	20	13			
165	Casuarina cunninghamiana <i>River she oak</i>	SM	6.5	2.5	83	120	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	20	13			
166	Casuarina cunninghamiana <i>River she oak</i>	SM	6	2	75	150	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
					85	Area m2	20	13			
167	Casuarina cunninghamiana <i>River she oak</i>	SM	6	3	128	180	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, suppressed, aerial cables above/through crown, poor structure and form.	2c
						Area m2	20	13			
168	Casuarina cunninghamiana <i>River she oak</i>	SM	6	2	2x95	190	2.5	2	2	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, structure & form modified by past pruning, aerial cables above/through crown	3a
					125	Area m2	20	13			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
169	Casuarina cunninghamiana <i>River she oak</i>	SM	6	3	170	207	2.5	2	2	Evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	2e
						Area m2	20	13			
170	Casuarina cunninghamiana <i>River she oak</i>	SM	6	2	93	140	2.5	2	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, small branch and twig die back, aerial cables above/through crown	3a
						Area m2	20	13			
171	Casuarina cunninghamiana <i>River she oak</i>	M	10	4	361	540	4.3	2.6	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, thinning crown, aerial cables above/through crown	3a
						Area m2	58	21			
172	Casuarina cunninghamiana <i>River she oak</i>	M	9	4	166	326	2.9	2.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	2a
					176	Area m2	26	14			
173	Casuarina cunninghamiana <i>River she oak</i>	SM	6	3	118	122	2.5	2	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, aerial cables above/through crown	3a
						Area m2	20	13			
174	Casuarina cunninghamiana <i>River she oak</i>	SM	6	3	77	200	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, aerial cables above/through crown	2a
					118	Area m2	20	13			
175	Casuarina cunninghamiana <i>River she oak</i>	SM	6	2.5	130	152	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	20	13			
176	Eucalyptus sideroxylon <i>Iron bark</i>	M	9	5	295	375	3.5	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	38	15			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
177	Cupaniopsis anacardioides	Y	2	2	3x30	130	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, stunted., aerial cables above/through crown	3a
	<i>Tuckeroo</i>					47	Area m2	20	13		
178	Casuarina glauca	M	6	3	110	157	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed, aerial cables above/through crown	2e
	<i>Swamp oak</i>						Area m2	20	13		
179	Casuarina glauca	M	9	4	195	270	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
	<i>Swamp oak</i>						Area m2	20	13		
180	Casuarina glauca	SM	4	2	63	117	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
	<i>Swamp oak</i>						Area m2	20	13		
181	Cupaniopsis anacardioides	SM	4	2.5	54	132	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, suppressed, aerial cables above/through crown	2e
	<i>Tuckeroo</i>					64	Area m2	20	13		
182	Celtis occidentalis	M	5	7	2x60	325	2.5	2.1	2	Deciduous tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2e
	<i>Hackberry</i>					2x115	Area m2	20	14		
183	Acacia floribunda	M	4.5	4	95	280	2.5	2	2	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, structure & form modified by past pruning, tree stressed, decline in vigour, bracket fungi observed, aerial cables above/through crown	4b
	<i>Sally wattle</i>					143	Area m2	20	13		
184	Acacia floribunda	M	5	5	85	330	2.5	2.1	2	Evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, co-dominant stems, strong union, structure & form modified by past pruning, aerial cables above/through crown	3a
	<i>Sally wattle</i>					100	Area m2	20	14		
						130					

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
185	No tree on site		0	0		0	0	0		tree off site	
	-----					Area m2	0	0			
186	Acacia floribunda		0	0		0	0	0		Dead	
	<i>Sally wattle</i>					Area m2	0	0			
187	Tristaniopsis laurina	Y	3	2	53	105	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Water gum</i>					Area m2	20	13			
188	Acacia floribunda	Y	3	3	52	140	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
	<i>Sally wattle</i>					Area m2	20	13			
189	Casuarina glauca	Y	4	2	35	60	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
	<i>Swamp oak</i>					Area m2	20	13			
190	Casuarina glauca	SM	6	3	52	240	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
	<i>Swamp oak</i>				135	Area m2	20	13			
191	Casuarina glauca	SM	5.5	2	70	118	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
	<i>Swamp oak</i>					Area m2	20	13			
192	Acacia floribunda	SM	3	3	38	83	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
	<i>Sally wattle</i>				50	Area m2	20	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
193	Casuarina glauca <i>Swamp oak</i>	Y	4	2	34	110	2.4	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	18	13			
194	Eucalyptus sideroxylon <i>Iron bark</i>	M	11	9	280	534	5.1	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, aerial cables above/through crown	2a
					320	Area m2	82	20			
195	Dead tree ----		0	0		0	0	0		Dead	
						Area m2	0	0			
196	Casuarina cunninghamiana <i>River she oak</i>	M	11	7	365	460	4.4	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, modified by past pruning, aerial cables above/through crown	2a
						Area m2	61	18			
197	Tree felled / cut down <i>nil</i>		0	0		0	0	0			4b
						Area m2	0	0			
198	Casuarina cunninghamiana <i>River she oak</i>	Y	3.5	2	40	135	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, aerial cables above/through crown	2a
					50	Area m2	20	13			
					65						
199	Casuarina glauca <i>Swamp oak</i>	M	7	3.5	105	177	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	20	13			
200	Casuarina glauca <i>Swamp oak</i>	M	11	6	345	530	4.1	2.5	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure & form modified by past pruning, canopy dieback and hazardous deadwood, small branch and twig die back, aerial cables above/through crown	2e
						Area m2	53	20			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
201	Casuarina glauca <i>Swamp oak</i>		0	0		0	0	0		Self sown sucker	
						Area m2	0	0			
202	Eucalyptus haemastoma <i>Scribbly gum</i>	M	6	3	243	360	2.9	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form modified by past pruning, aerial cables above/through crown	2a
						Area m2	26	15			
203	Eucalyptus haemastoma <i>Scribbly gum</i>	M	9	4.5	270	432	3.2	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure & form modified by past pruning, aerial cables above/through crown	
						Area m2	32	17			
204	Acacia floribunda <i>Sally wattle</i>		0	0		0	0	0		Shrub	
						Area m2	0	0			
205	Acacia floribunda <i>Sally wattle</i>		0	0		0	0	0		Shrub	
						Area m2	0	0			
206	Allocasuarina torulosa <i>Forest oak</i>	M	9	5	105	535	3.7	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
					240	Area m2	43	20			
					165						
207	Allocasuarina torulosa <i>Forest oak</i>	M	8	5	280	420	3.4	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	36	17			
208	Allocasuarina torulosa <i>Forest oak</i>	M	7	4	120	280	2.6	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, aerial cables above/through crown	2a
					180	Area m2	21	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
209	Allocauarina torulosa <i>Forest oak</i>	M	6	5	183	227	2.2	2	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	15	13			
210	Allocauarina torulosa <i>Forest oak</i>	M	6	3.5	154	230	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	20	13			
211	Allocauarina torulosa <i>Forest oak</i>	M	6	3	75	210	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, aerial cables above/through crown	2a
					150	Area m2	20	13			
212	Allocauarina torulosa <i>Forest oak</i>	SM	4	4	3x75	300	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	20	13			
213	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	12	9	365	515	4.4	2.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	61	20			
214	Dead tree ----		0	0		0	0	0		Dead	
						Area m2	0	0			
215	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	11	8	375	470	4.5	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	64	18			
216	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	13.5	8	338	422	4.1	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning, aerial cables above/through crown	2a
						Area m2	53	17			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
217	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	12	7	304	400	3.6	2.3	2	Evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed, s modified by past pruning, aerial cables above/through crown	3a
						Area m2	41	17			
218	Eucalyptus botryoides <i>Bangalay</i>	M	9	7.5	90	488	4.3	2.4	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown, modified by past pruning	2a
					348	Area m2	58	18			
219	Eucalyptus piperita <i>Sydney peppermint gum</i>	M	12	7	390	640	4.7	2.7	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, trunk wound, aerial cables above/through crown	2a
						Area m2	69	23			
220	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	13	6.5	340	418	4.1	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	53	17			
221	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	11	5	308	360	3.7	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	2a
						Area m2	43	15			
222	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	8.5	6	205	257	2.5	1.9	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	11			
223	Celtis occidentalis <i>Hackberry</i>		3	0		0	0	0	4	Self sown sapling	
						Area m2	0	0			
224	Celtis occidentalis <i>Hackberry</i>		3	0		0	0	0	4	Self sown sapling	
						Area m2	0	0			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
225	Celtis occidentalis <i>Hackberry</i>		3	0		0	0	0	4	Self sown sapling	
						Area m2	0	0			
226	Syagrus romanzoffiana <i>Cocos palm</i>	SM	5	4	250	300	3	2	2	Palm species introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	28	13			
227	Ceratonia siliqua <i>Carob</i>		3	0		0	0	0	4	Self sown sapling	
						Area m2	0	0			
228	Ulmus parvifolia <i>Chinese elm</i>		0	0		0	0	0		Dead	
						Area m2	0	0			
229	Celtis occidentalis <i>Hackberry</i>		4	0		0	0	0		Self sown sapling	
						Area m2	0	0			
230	Celtis occidentalis <i>Hackberry</i>		3	0		0	0	0		Self sown sapling	
						Area m2	0	0			
231	Acacia floribunda <i>Sally wattle</i>	M	5	8	320	450	3.8	2.4		Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, structure and form typical of the species, modified by past pruning	3a
						Area m2	45	18			
232	Tree felled / cut down <i>nil</i>		0	0		0	0	0			4b
						Area m2	0	0			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
233	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	8	5	230	380	2.8	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	25	15			
234	Eucalyptus haemastoma <i>Scribbly gum</i>	SM	4	5	168	240	2.5	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, suppressed, aerial cables above/through crown	2e
						Area m2	20	13			
235	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	11	6	254	310	3	2	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	28	13			
236	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	11.5	6	340	433	4.1	2.3	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed.	2e
						Area m2	53	17			
237	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	13	8	310	400	3.7	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species.	2a
						Area m2	43	17			
238	Eucalyptus nicholii <i>Narrow leaf peppermint</i>	M	7	6	238	205	2.9	1.7	3	Evergreen native tree introduced to the site, average condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, aerial cables above/through crown	3a
						Area m2	26	9			
239	Acacia saligna <i>Sydney wattle</i>	SM	3	2.5	44	70	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	20	13			
240	Eucalyptus botryoides <i>Bangalay</i>	M	8	5	175	265	2.5	2	2	Evergreen tree indigenous to the locality, average condition, the species is not rare or endangered, suppressed, poor structure and form, aerial cables above/through crown	2a
						Area m2	20	13			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
241	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	12	7	360	455	4.3	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	58	18			
242	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	12	8	346	410	4.2	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	55	17			
243	Acacia floribunda <i>Sally wattle</i>	M	4	4	145	230	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	
						Area m2	20	13			
244	Eucalyptus robusta <i>Swamp mahogany</i>	M	7.5	6	100	393	3.6	2.2	2	Evergreen tree indigenous to the locality, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back	2a
					135	Area m2	41	15			
					245						
245	Casuarina glauca <i>Swamp oak</i>	M	9	4	138	310	1.7	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, suppressed	2a
						Area m2	9	13			
246	Casuarina glauca <i>Swamp oak</i>	M	12	6	245	415	2.9	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	26	17			
247	Corymbia citriodora <i>Lemon scented gum</i>	M	11	9	367	467	4.4	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	61	18			
248	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	8	6	288	335	3.5	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	38	14			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
249	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	11	4	257	312	3.1	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	30	13			
250	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	10	4	265	305	3.2	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, aerial cables above/through crown	2a
						Area m2	32	13			
251	Eucalyptus botryoides <i>Bangalay</i>	SM	5.5	5	235	385	2.8	2.2	2	Evergreen tree indigenous to the locality, poor condition, the species is not rare or endangered, small branch and twig die back, aerial cables above/through crown	3c
						Area m2	25	15			
252	Eucalyptus pilularis <i>Blackbutt</i>	M	13	11	565	650	6.8	2.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	145	25			
253	Eucalyptus pilularis <i>Blackbutt</i>	M	9	7	275	375	3.3	2.2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, storm damage, tree has lean towards west.	3a
						Area m2	34	15			
254	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	12	4.5	200	250	2.4	1.8	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, thinning crown	2a
						Area m2	18	10			
255	Eucalyptus crebra <i>Narrow leaf iron bark</i>	M	13	5	305	455	3.7	2.4	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	43	18			
256	Eucalyptus crebra <i>Narrow leaf iron bark</i>	SM	10	5	380	370	4.6	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, minor small branch and twig die back	2a
						Area m2	66	15			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
257	Eucalyptus pilularis <i>Blackbutt</i>	M	8	5.5	175	230	2.1	2	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, thinning crown	2e
						Area m2	14	13			
258	Cupaniopsis anacardioides <i>Tuckeroo</i>	M	5	4	115	180	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	13			
259	Eucalyptus pilularis <i>Blackbutt</i>	M	13	8	370	440	4.4	2.3	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	61	17			
260	Casuarina glauca <i>Swamp oak</i>	M	12	5.5	275	360	3.3	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	34	15			
261	Melaleuca stypheloides <i>Prickly paper-bark</i>	M	10	8	260	500	4.5	2.5	2	Tree not tagged, located on adjoining property, evergreen native tree introduced to the site, fair to average condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back, storm damage, structure & form modified by past pruning	2e
					275	Area m2	64	20			
262	Eucalyptus scoparia <i>Willow gum</i>	M	15	10	250	515	4.7	2.5	2	Tree not tagged, located on adjoining property 24 Wentworth St, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, small branch and twig die back	2a
					300	Area m2	69	20			
263	Eucalyptus robusta <i>Swamp mahogany</i>	M	14.5	4	250	350	3	2.1	2	Tree not tagged, located on adjoining property, evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, suppressed, high crown	2a
						Area m2	28	14			
264	Eucalyptus robusta <i>Swamp mahogany</i>	M	16.5	14	620	760	7.4	2.9	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, structure and form typical of the species, canopy dieback and hazardous deadwood, small branch and twig die back, storm damage, modified by past pruning	2a
						Area m2	172	26			

Tree No.	Botanical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
265	<i>Corymbia ficifolia</i> <i>Red flowering gum</i>	SM	4	6	85	340	2.8	2.1	2	Evergreen native tree introduced to the site, fair condition, the species is not rare or endangered, co-dominant stems, strong union, storm damage, structure & form modified by past pruning	2e
					2x115 140	Area m2	25	14			
266	<i>Eucalyptus microcorys</i> <i>Tallow wood</i>	M	15.5	17	690	1160	8.3	3.5	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, canopy dieback and hazardous deadwood, small branch and twig die back	2a
						Area m2	216	38			
267	<i>Corymbia maculata</i> <i>Spotted gum</i>	M	15	9	465	635	5.6	2.7	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, small branch and twig die back, suppressed east elevation, recent basal wound,	2e
						Area m2	99	23			
268	<i>Angophora costata</i> <i>Smooth bark apple</i>	M	7.5	6	256	385	3.1	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	30	15			
269	<i>Syncarpia glomulifera</i> <i>Turpentine</i>	SM	6	2.5	140	205	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, suppressed	2e
						Area m2	20	13			
270	<i>Angophora costata</i> <i>Smooth bark apple</i>	SM	6	4	150	230	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species, suppressed north elevation	2e
						Area m2	20	13			
271	<i>Angophora costata</i> <i>Smooth bark apple</i>	SM	6	4	120	320	2.7	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back	2a
					195	Area m2	23	14			
272	<i>Angophora costata</i> <i>Smooth bark apple</i>	SM	6	4	2x145	285	2.5	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, minor small branch and twig die back	2a
						Area m2	20	13			

Tree No.	Botannical Name <i>Common Name</i>	Age Class	Height m	Spread m	DCH mm	DRB mm	TPZ m. rad.	SRZ m. rad.	L/Sc Amen.	Description, Condition and Comments	SULE
273	Angophora costata <i>Smooth bark apple</i>	M	7.5	3	250	350	3	2.1	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	28	14			
274	Angophora costata <i>Smooth bark apple</i>	M	9	5	288	365	3.5	2.2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	38	15			
275	Angophora costata <i>Smooth bark apple</i>	SM	4	3	120	215	2.2	2	2	Evergreen native tree introduced to the site, good condition, the species is not rare or endangered, co-dominant stems, strong union, storm damage, recent trunk wound	2e
					140	Area m2	15	13			
276	Schefflera actinophylla <i>Umbrella tree</i>	M	5.5	3	100	280	2.5	2	3	Evergreen tree introduced to the site, good condition, the species is not rare or endangered, structure and form typical of the species	2a
						Area m2	20	13			
277	Ficus elastica <i>Indian rubber tree</i>	M	10.5	9	Multi stem	900	6	3.2	3	Evergreen tree introduced to the site, average condition, the species is not rare or endangered, co-dominant stems, strong union, extensive branch and twig die back, undesirable invasive species	4b
						Area m2	113	32			

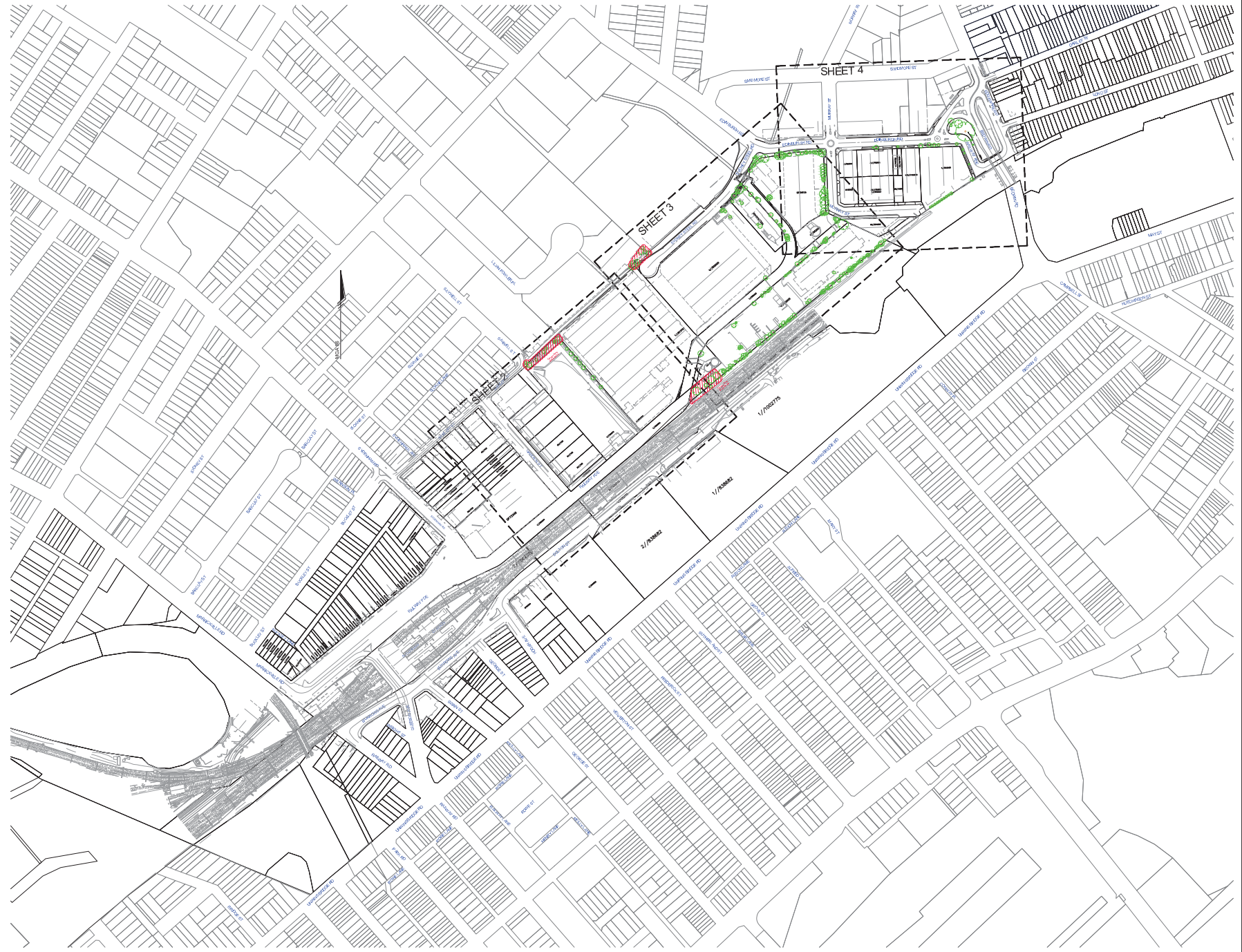
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REV	DATE	REVISION DETAILS	DRAWN	CHK	APP
C	05.10.2017	ADDITIONAL TREES, RENAMING AND NOTE	MTD	MGL	SFG
B	26.09.2017	ADDITIONAL TREES DIGITISED	MTD	MGL	SFG
A	17.05.2017	INITIAL VERSION	JMJ	MGL	SFG

COORDINATE	SCALE	ORIGIN
COORDINATES: MGA	SCALE: 1:2500 @ A1	ORIGIN: N/A @ A1
ORIGIN: SSM32886		ORIGIN: SSM32886

CLIENT	TITLE	DRAWING NO	ISSUE
NSW Transport for NSW	SYDNEY METRO CITY AND SOUTH WEST Tree Survey - Marrickville Station	NWLSRT-RPS-WSS-SR-DWG-000004.dwg	PR124856 C

DATE	BY	DATE	BY
DATE OF SURVEY: 26.04.2017	DATE OF PLAN: 17.05.2017	DATE LAST SAVED: 05.10.2017	DATE APPROVED: 17.05.2017

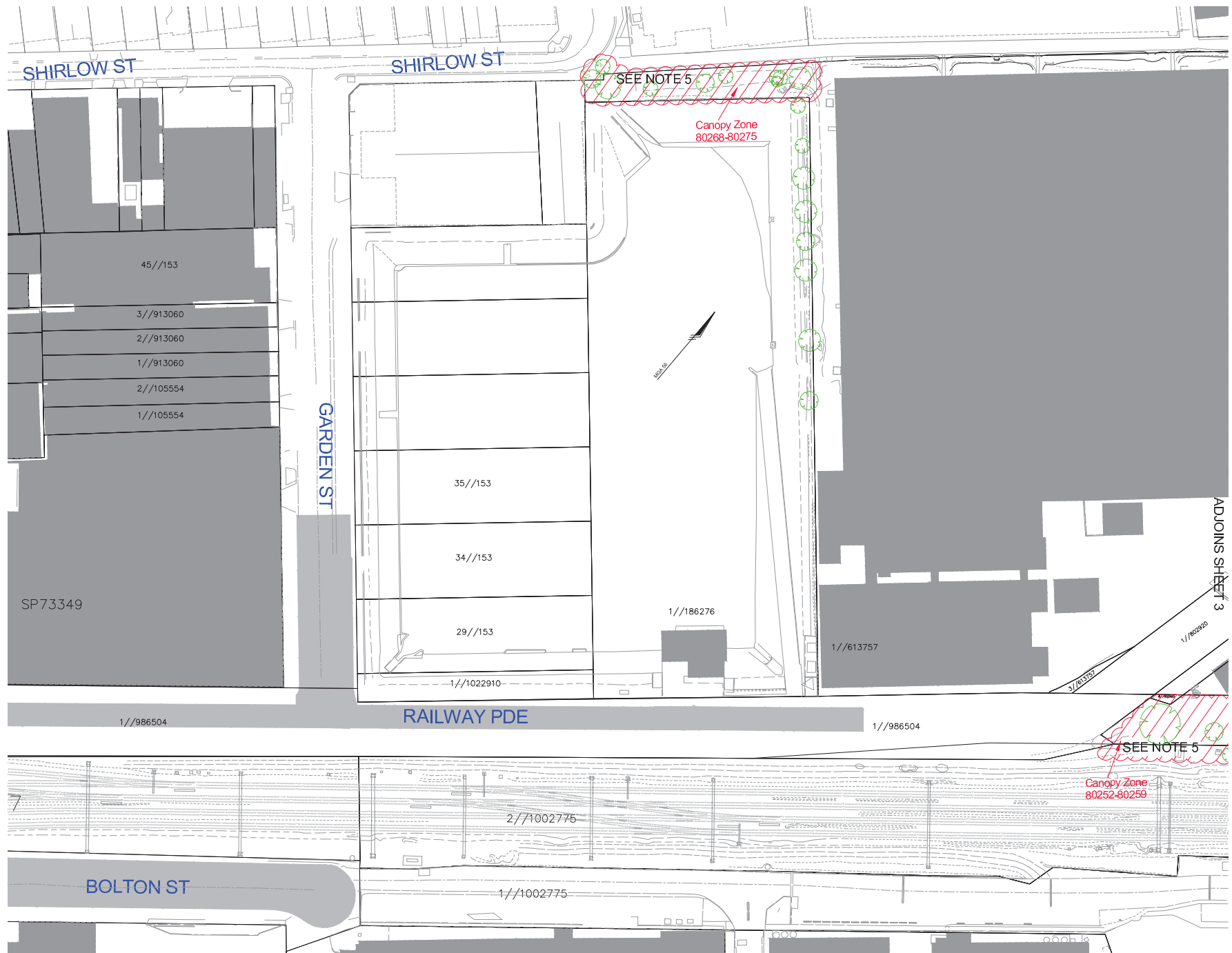
SCALE	SCALE IN METRES AT ORIGINAL REDUCTION RATIO
SCALE: 1:2500 @ A1	SCALE IN METRES AT ORIGINAL REDUCTION RATIO

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3.0 DATUM HEIGHT
 LEVELS ARE ON AUSTRALIAN HEIGHT DATUM (AHD) BASED ON THE PROJECT PRIMARY CONTROL TRIANGULAR USING SSM 32886 WITHAL OF 640M LOCATED AT INTERSECTION OF BELDERRIG AND DUNING BRIDGE.
4.0 DATUM ORIGIN
 ORIGIN OF CO-ORDINATES SSM 32886 WITH MGA CO-ORDINATE VALUES OF E: 581390.0 N: 6205800.0.
5.0 AERIAL PHOTOGRAPHY
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REV	DATE	REVISION DETAILS	DRAWN	CHK	APP
C	05.10.2017	ADDITIONAL TREES, RENAMING AND NOTE	MTD	MGL	SFG
B	26.09.2017	ADDITIONAL TREES DIGITISED	MTD	MGL	SFG
A	17.05.2017	INITIAL VERSION	JMJ	MGL	SFG

HORIZ. SCALE			VERT. SCALE		
1:500	@ A1	N/A @ A1			
COORDINATES:	MGA	DATUM:	AHD		
ORIGIN:	SSM32886	ORIGIN:	SSM32886		



CLIENT		TITLE	
	Transport for NSW	SYDNEY METRO CITY AND SOUTH WEST Tree Survey - Marrickville Station	
SURVEY:	DATE OF SURVEY: 26.04.2017	DRAWING NO:	NWLSRT-RPS-WSS-SR-DWG-000004.dwg
DRAWN: MJM	DATE OF PLAN: 17.05.2017	SHEET 2 OF 4 SHEETS	SIZE A1
CHECKED: MGL	DATE LAST SAVED: 05.10.2017	JOB NO: PR124856	
APPROVED: SFG	DATE APPROVED: 17.05.2017	ISSUE: C	

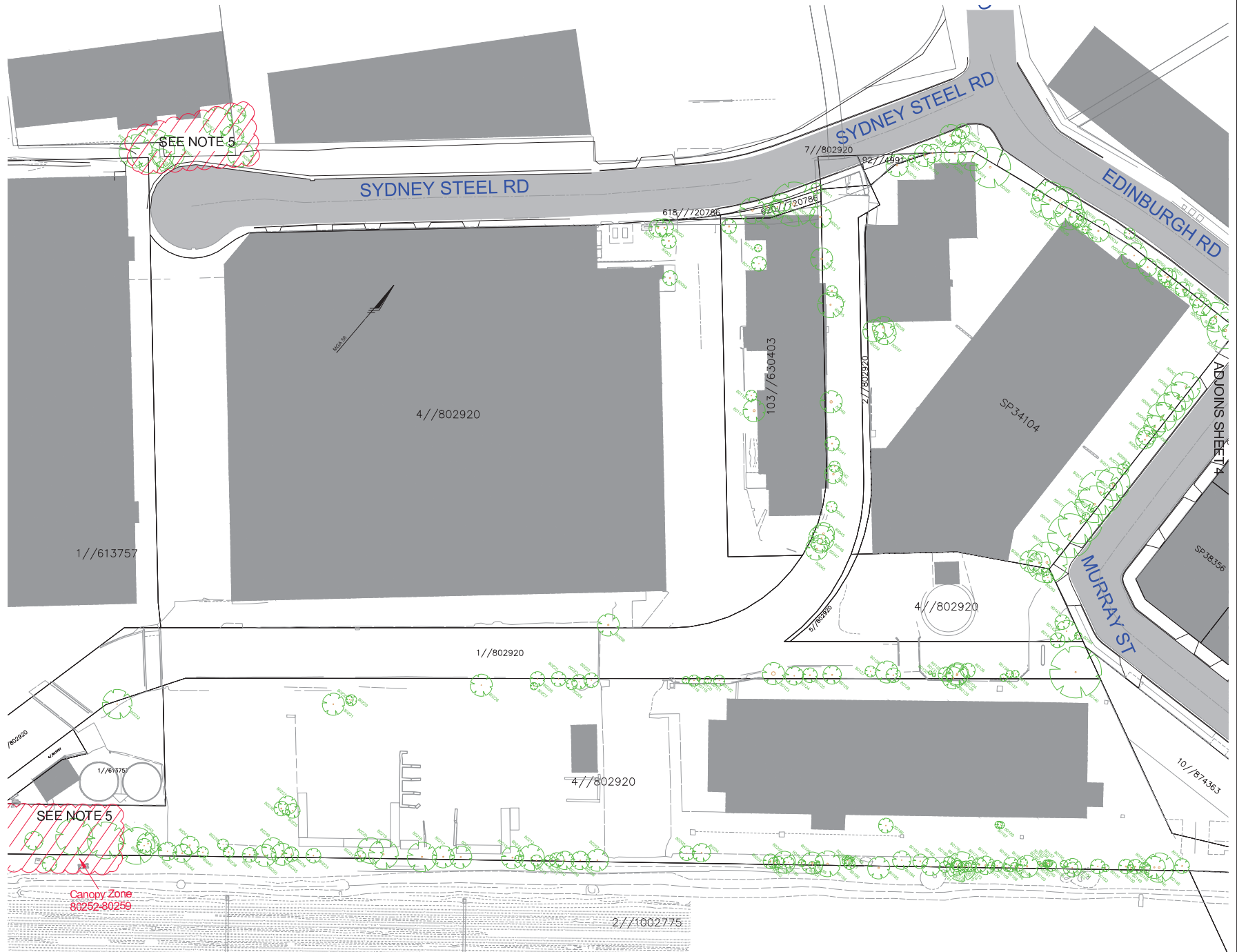
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40 DATUM ORIGIN
 ORIGIN OF CO-ORDINATES: SSM 32866 WITH MGA CO-ORDINATE VALUES OF E: 581300.00; N: 6205300.00.
50 AERIAL PHOTOGRAPHY
 THESE PLOTS WERE OBTAINED VISUALLY FROM AERIAL PHOTOGRAPHY DATED 07th AUGUST 2017 AND ARE APPROXIMATE.

ADDITIONAL NOTE
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ADJOINS SHEET 2

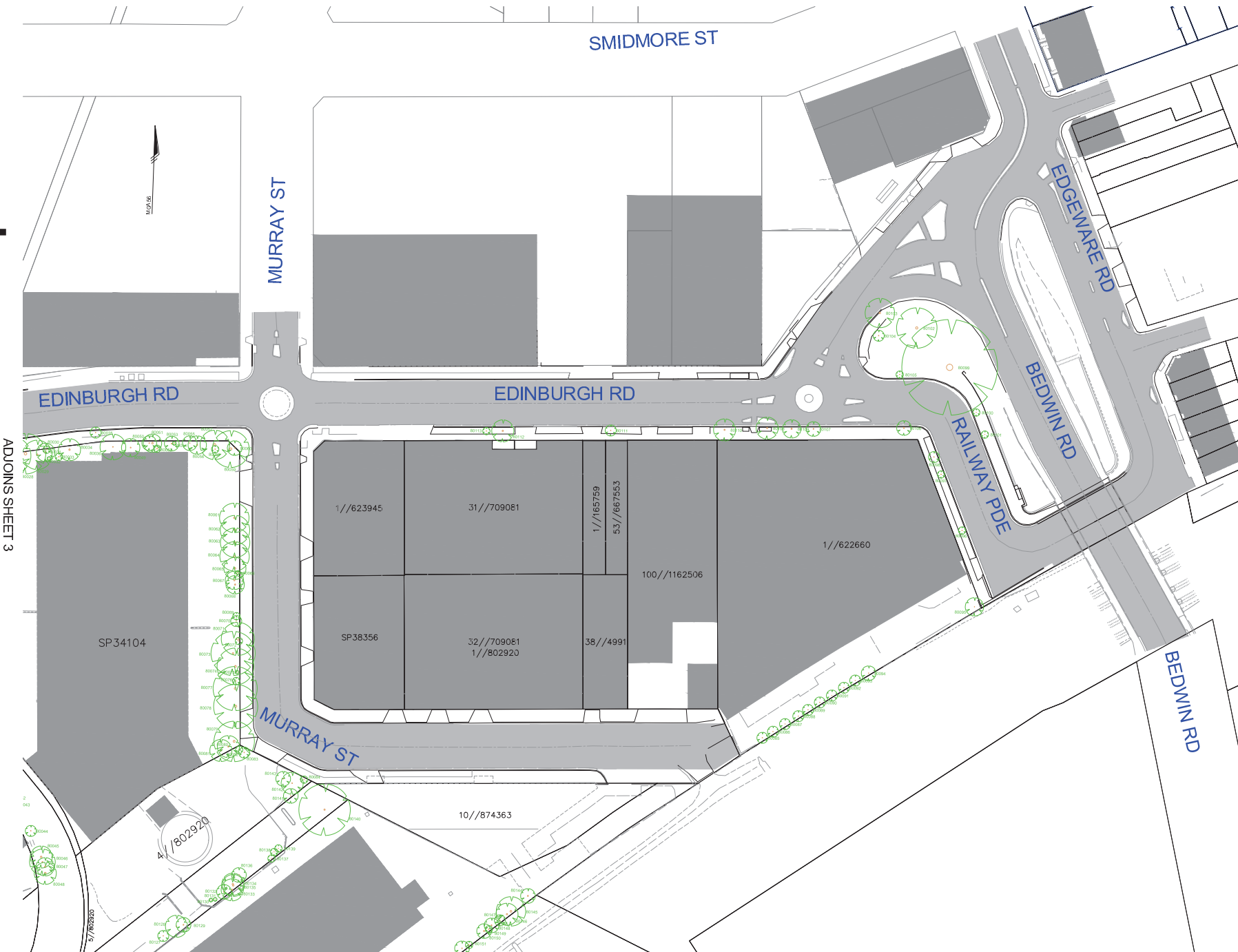


<table border="1"> <tr> <th>REV</th> <th>DATE</th> <th>REVISION DETAILS</th> <th>DRAWN</th> <th>CHK</th> <th>APP</th> </tr> <tr> <td>C</td> <td>05.10.2017</td> <td>ADDITIONAL TREES, RENAMING AND NOTE</td> <td>MTD</td> <td>MGL</td> <td>SFG</td> </tr> <tr> <td>B</td> <td>26.09.2017</td> <td>ADDITIONAL TREES DIGITISED</td> <td>MTD</td> <td>MGL</td> <td>SFG</td> </tr> <tr> <td>A</td> <td>17.05.2017</td> <td>INITIAL VERSION</td> <td>JMU</td> <td>MGL</td> <td>SFG</td> </tr> </table>			REV	DATE	REVISION DETAILS	DRAWN	CHK	APP	C	05.10.2017	ADDITIONAL TREES, RENAMING AND NOTE	MTD	MGL	SFG	B	26.09.2017	ADDITIONAL TREES DIGITISED	MTD	MGL	SFG	A	17.05.2017	INITIAL VERSION	JMU	MGL	SFG	<table border="1"> <tr> <td>HORIZ. SCALE</td> <td>VERT. SCALE</td> <td>NOTES</td> </tr> <tr> <td>1:500 @ A1</td> <td>N/A @ A1</td> <td></td> </tr> <tr> <td>COORDINATES: MGA</td> <td>DATUM: AHD</td> <td></td> </tr> <tr> <td>ORIGIN: SSM32866</td> <td>ORIGIN: SSM32866</td> <td></td> </tr> </table>			HORIZ. SCALE	VERT. SCALE	NOTES	1:500 @ A1	N/A @ A1		COORDINATES: MGA	DATUM: AHD		ORIGIN: SSM32866	ORIGIN: SSM32866		<table border="1"> <tr> <td>CLIENT</td> <td>PROJECT</td> <td>TITLE</td> </tr> <tr> <td>NSW Transport for NSW</td> <td>Sydney Metro City and South West</td> <td>Tree Survey - Marrickville Station</td> </tr> </table>			CLIENT	PROJECT	TITLE	NSW Transport for NSW	Sydney Metro City and South West	Tree Survey - Marrickville Station	<table border="1"> <tr> <td>JOB No</td> <td>ISSUE</td> </tr> <tr> <td>PR124856</td> <td>C</td> </tr> </table>			JOB No	ISSUE	PR124856	C
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ADJOINING SHEET 3

REV	DATE	REVISION DETAILS	DRAWN	CHK	APP
C	05.10.2017	ADDITIONAL TREES, RENAMING AND NOTE	MTD	MGL	SFG
B	26.09.2017	ADDITIONAL TREES DIGITISED	MTD	MGL	SFG
A	17.05.2017	INITIAL VERSION	JMU	MGL	SFG

COORDINATES	DATUM
MGA	AHD
ORIGIN: SSM32886	ORIGIN: SSM32886

SCALE	SCALE
1:500 @ A1	N/A @ A1

SCALE IN METRES AT ORIGINAL REDUCTION RATIO
0 5 10 20 30 40

CLIENT	DATE OF SURVEY
NSW Transport for NSW	26.04.2017
DRAWN	DATE OF PLAN
JMU	17.05.2017
CHECKED	DATE LAST SAVED
MGL	05.10.2017
APPROVED	DATE APPROVED
SFG	17.05.2017

TITLE	JOB No
SYDNEY METRO CITY AND SOUTH WEST Tree Survey - Marrickville Station	PR124856
DRAWING No: NWL5RT-RPS-WSS-SR-DWG-000004.dwg	SIZE: A1

ISSUE
C

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
80278	<i>Lophostemon confertus</i>	M	12.5	16	850	890	9.6	3.2	2	Evergreen native street tree in good condition. The species is not rare or	3b
	Brush Box										
80279	<i>Backhousia citriodora</i>	SM	3.5	1	55 50	100	1.2	1.26	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair health	3b
	Lemon Myrtle										
80280	<i>Backhousia citriodora</i>	Y	<1	<1	-	-	-	-	4	Small evergreen native street tree. Planted within last 10 years. Tree exhibits poor	3d
	Lemon Myrtle										
80281	<i>Backhousia citriodora</i>	SM	4	1	70	95	1.2	1.2	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair health	3b
	Lemon Myrtle										
80282	<i>Backhousia citriodora</i>	SM	3	1	80	100	1.2	1.26	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair health	3b
	Lemon Myrtle										
80283	<i>Backhousia citriodora</i>	SM	2.5	1	40	70	1	1.1	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits reduced	3b
	Lemon Myrtle										
80284	<i>Backhousia citriodora</i>	SM	3.5	1	75	90	1.2	1.2	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits reduced	3b
	Lemon Myrtle										
80285	<i>Backhousia citriodora</i>	SM	2.5	1	40	70	1	1.1	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits reduced	3b
	Lemon Myrtle										
80286	<i>Backhousia citriodora</i>	SM	4	1	50 50	100	1.2	1.3	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	3b
	Lemon Myrtle										
80287	<i>Callistemon viminalis</i>	M	9	6	320	470	3.6	2.4	3	Evergreen native street tree. Approx. 30-40 years. Tree exhibits good health and vigour.	2a
	Weeping Bottlebrush										
80288	<i>Backhousia citriodora</i>	SM	3.5	1.5	75	90	1.2	1.2	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair health	3b
	Lemon Myrtle										
80289	<i>Backhousia citriodora</i>	SM	2	2	25 30	80	1	1.2	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits reduced	3b
	Lemon Myrtle										
80290	<i>Robinia pseudoacacia</i> 'Fris	M	8.5	10	220	320	2.4	2.1	3	Deciduous exotic street tree. Approx. 15-20 years. Tree exhibits good health and vigour.	3d
	Golden Robinia										
80291	<i>Backhousia citriodora</i>	SM	5	2	45 70	110	1.2	1.3	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	2b
	Lemon Myrtle										
80292	<i>Fraxinus griffithii</i>	SM	4.5	2.5	70	155	1.2	1.5	3	Small evergreen exotic street tree. Planted within last 10 years. Tree exhibits reduced	2b
	Evergreen Ash										

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
80293	<i>Backhousia citriodora</i>	SM	4	1.5	50	90	1.2	1.2	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	2b
	Lemon Myrtle										
80294	<i>Backhousia citriodora</i>	SM	4.5	2	70	100	1.2	1.26	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	2b
	Lemon Myrtle										
80295	<i>Backhousia citriodora</i>	SM	4	2.5	80	100	1.2	1.26	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	2b
	Lemon Myrtle										
80296	<i>Backhousia citriodora</i>	SM	4	2.5	70	105	1.2	1.26	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	2b
	Lemon Myrtle										
80297	<i>Backhousia citriodora</i>	SM	5	2.5	90	120	1.2	1.4	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	2b
	Lemon Myrtle										
80298	<i>Backhousia citriodora</i>	SM	5	3	85	115	1.2	1.3	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits good health	2b
	Lemon Myrtle										
80299	<i>Backhousia citriodora</i>	SM	5.5	3	100	130	1.2	1.4	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits good health	2b
	Lemon Myrtle										
80300	<i>Cinnamomum camphora</i>	M	17	16	590 580 610	1060	12	3.4	4	Large, multi-trunked evergreen exotic weed tree. Located adjacent to rail line. Tree	3c
	Camphor Laurel										
80301	<i>Schefflera actinophylla</i>	M	12	6	150 200 200	500	3.6	2.5	3	Small evergreen self sown native tree species. Planted within last 15 years. Tree exhibits	4a
	Umbrella Tree										
80302	<i>Ailanthus altissima</i>	M	17	14	385	410	4.8	2.3	4	Large deciduous exotic weed tree species. Approx. 15-20 years. Tree exhibits good	3c
	Tree of Heaven										
80303	<i>Syzygium paniculatum</i>	M	7.5	6	270	315	3.6	2	2	Evergreen native street tree. Approx. 20-30 years. Tree exhibits good health and vigour.	2a
	Magenta Lilly Pilly										
80304	<i>Syzygium paniculatum</i>	M	7	5	230	310	2.4	2	2	Evergreen native street tree. Approx. 20-30 years. Tree exhibits good health and vigour.	2a
	Magenta Lilly Pilly										
80305	<i>Syzygium paniculatum</i>	M	7	6	230	305	2.4	2	2	Evergreen native street tree. Approx. 20-30 years. Tree exhibits good health and vigour.	2a
	Magenta Lilly Pilly										
80306	<i>Fraxinus griffithii</i>	SM	4	5	75 80 110	170	2.4	1.6	3	Small evergreen exotic street tree. Planted within last 10 years. Tree exhibits reduced	2c
	Evergreen Ash										
80307	<i>Corymbia citriodora</i>	M	12	10	340	430	3.6	2.3	2	Evergreen native street tree. Approx. 20-30 years. Tree exhibits fair health and vigour.	2d
	Lemon Scented Gum										

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
80308	<i>Araucaria heterophylla</i>	Y	4.5	4	110	190	1.2	1.7	3	Small evergreen native tree in median. Approx. 10-15 years. Tree exhibits good	2a
	Norfolk Is. Pine										
80309	<i>Melaleuca styphelioides</i>	M	5	8	310	375	3.6	2.2	2	Evergreen native tree in median. Approx. 15-20 years. Tree exhibits fair health and vigour.	2a
	Prickly-leaved Paperbark										
80310	<i>Melaleuca styphelioides</i>	M	5	9	220 260	430	3.6	2.3	2	Evergreen native tree in median. Approx. 15-20 years. Tree exhibits fair health and vigour.	2a
	Prickly-leaved Paperbark										
80311	<i>Melaleuca styphelioides</i>	M	5	8	150 170 195	245	3.6	1.8	2	Evergreen native tree in median. Approx. 15-20 years. Tree exhibits fair health and vigour.	2a
	Prickly-leaved Paperbark										
80312	<i>Populus nigra 'Italica'</i>	M	20	3	700	850	8.4	3.1	3	Large deciduous exotic tree located in park. Approx. 40-50 years old. Set back from road.	3b
	Lombardy Poplar										
80313	<i>Populus nigra 'Italica'</i>	M	20	3	750	900	9.6	3.2	3	Large deciduous exotic tree located in park. Approx. 40-50 years old. Set back from road.	3b
	Lombardy Poplar										
80314	<i>Populus nigra 'Italica'</i>	M	15	5	600	850	7.2	3.1	3	Large deciduous exotic tree located in park. Approx. 40-50 years old. Set back from road.	3b
	Lombardy Poplar										
80315	<i>Populus nigra 'Italica'</i>	M	10	4	500	760	6	3	4	Deciduous exotic tree located in park. Approx. 40-50 years old. Set back from road.	4a
	Lombardy Poplar										
80316	<i>Casuarina cunninghamiana</i>	M	15	11	600	780	7.2	3	2	Large evergreen native tree located in park. Approx. 30-40 years old. Set back from road.	2a
	River Oak										
80317	<i>Casuarina cunninghamiana</i>	M	15.5	12	660	775	8.4	3	2	Large evergreen native tree located in park. Approx. 30-40 years old. Set back from road.	2a
	River Oak										
80318	<i>Populus nigra 'Italica'</i>	M	10	5	530	650	6	2.8	4	Deciduous exotic tree located in park. Approx. 40-50 years old. Set back from road.	4a
	Lombardy Poplar										
80319	<i>Sapium sebiferum</i>	M	8	8	350 310	520	6	2.5	2	Deciduous exotic street tree. Approx. 20-30 years old. Tree exhibits good health and	2a
	Chinese Tallow Tree										
80320	<i>Backhousia citriodora</i>	SM	3	1.5	75	90	1.2	1.2	3	Small evergreen native street tree. Planted within last 10 years. Tree exhibits fair to good	2a
	Lemon Myrtle										
80321	<i>Pyrus calleryana</i>	M	6.5	6	155 240	300	3.6	2	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits good health	2a
	Callery Pear										
80322	<i>Koelreuteria paniculata</i>	SM	3	1.5	45 45	95	1.2	1.2	3	Small deciduous exotic street tree. Approx. 10 years old. Tree exhibits poor health and	3c
	Golden Rain Tree										

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.		
80323	<i>Tristaniopsis laurina</i>	SM	3.5	3	100	155	1.2	1.5	3	Small evergreen native street tree. Planted within last 10-15 years. Tree exhibits fair	2a
	Water Gum										
80324	<i>Koelreuteria paniculata</i>	M	6.5	6	170	220	2.4	1.8	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits good health	3c
	Golden Rain Tree										
80325	<i>Koelreuteria paniculata</i>	M	6.5	7	205	255	2.4	1.9	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits fair health and	3c
	Golden Rain Tree										
80326	<i>Pyrus calleryana</i>	M	7	8	235	265	2.4	1.9	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits good health	2a
	Callery Pear										
80327	<i>Koelreuteria paniculata</i>	M	4.5	4	150	165	1.2	1.6	2	Small deciduous exotic street tree. Approx. 10 years old. Tree exhibits poor health and	4a
	Golden Rain Tree										
80328	<i>Fraxinus griffithii</i>	SM	5.5	5	90 90 110 120	190	2.4	1.7	2	Small evergreen exotic street tree. Planted within last 10 years. Tree exhibits good health	2a
	Evergreen Ash										
80329	<i>Fraxinus griffithii</i>	SM	5.5	4	50 65 80 80	160	1.2	1.5	2	Small evergreen exotic street tree. Planted within last 10 years. Tree exhibits good health	2a
	Evergreen Ash										
80330	<i>Fraxinus griffithii</i>	SM	4	3	50 70 80	120	1.2	1.4	3	Small evergreen exotic street tree. Planted within last 5 years. Tree exhibits good health	2a
	Evergreen Ash										
80331	<i>Fraxinus griffithii</i>	SM	3.5	2.5	50 50	100	1.2	1.3	3	Small evergreen exotic street tree. Planted within last 5 years. Tree exhibits good health	2a
	Evergreen Ash										
80332	<i>Fraxinus 'Raywood'</i>	M	5	4.5	90 120	150	1.2	1.5	3	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits poor health and	3a
	Claret Ash										
80333	<i>Fraxinus 'Raywood'</i>	M	8	8	210	260	2.4	1.9	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits fair health and	3a
	Claret Ash										
80334	<i>Fraxinus 'Raywood'</i>	M	8	8	230	310	2.4	2	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits fair to good	3a
	Claret Ash										
80335	<i>Fraxinus 'Raywood'</i>	M	6.5	7	220	290	2.4	1.2	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits fair health and	3a
	Claret Ash										
80336	<i>Fraxinus 'Raywood'</i>	M	7.5	8	270	340	3.6	2.1	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits good health	3a
	Claret Ash										
80337	<i>Fraxinus 'Raywood'</i>	M	7	5	255	285	3.6	2	3	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits fair health and	3a
	Claret Ash										

Tree No.	Botanical Name	Age	Height	Spread	DBH	DRB	TPZ	SRZ	L/Sc	Description, Condition and Comments	SULE	
	Common Name	Class	m	m	mm	mm	m. rad.	m. rad.	Amen.			
80338	<i>Fraxinus 'Raywood'</i>	M	7	8	210	130	280	2.4	1.9	2	Small deciduous exotic street tree. Approx. 15-25 years old. Tree exhibits fair health and	3a
	Claret Ash											
80339	<i>Fraxinus griffithii</i>	SM	4	3	50	60	1.2	1	3	Small evergreen exotic street tree. Planted within last 5 years. Tree exhibits good health	2a	
	Evergreen Ash											
80340	<i>Fraxinus griffithii</i>	SM	4	2.5	50	60	1.2	1	3	Small evergreen exotic street tree. Planted within last 5 years. Tree exhibits good health	2a	
	Evergreen Ash											
80341	<i>Fraxinus griffithii</i>	SM	2	1	45	55	1	1	3	Small evergreen exotic street tree. Planted within last 5 years. Tree exhibits good health	2a	
	Evergreen Ash											
80342	<i>Fraxinus griffithii</i>	SM	2	1	50	60	1	1	3	Small evergreen exotic street tree. Planted within last 5 years. Tree exhibits good health	2a	
	Evergreen Ash											
80343												
80344												

Tree Survey

Prepared for:

Steven Brassington
Marsupial Landscapes Pty Ltd

Site Location

Edinburgh Road
Marrickville

Author

Russell Cleaver
AQF Level 5 Arborist
TRAQ Qualified

Tree #	Botanical Name Common Name	Age class	Height (m)	Spread (m)	DCH (mm)	DRB	TPZ (m)	SRZ (m)	L/Sc Amen.	Description, condition and comments.	SULE
1	<i>Eucalyptus Microcorys</i> Tallowwood	J	5	3	90	120	1.08	1.36	L	Evergreen native tree self-seeded from adjacent mature tree, the species is not rare or endangered, good condition, future growth likely impacted by larger tree.	2C
2	<i>Elaeocarpus Reticulatus</i> Blueberry Ash	M	8	4	200	280	2.4	1.94	M	Evergreen native tree, tree is in fair condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease.	3A
3	<i>Elaeocarpus Reticulatus</i> Blueberry Ash	M	8	5	180	260	2.16	1.88	M	Evergreen native tree, tree is in fair condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease.	3A
4	<i>Elaeocarpus Reticulatus</i> Blueberry Ash	M	8	4	190	250	2.28	1.85	M	Evergreen native tree, tree is in fair condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease.	3A
5	<i>Livistona Australis</i> Cabbage Palm	M	11	4	400	600	4.8	2.67	M	Palm species introduced to the site, fair condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease, minor from dieback.	2A
6	<i>Livistona Australis</i> Cabbage Palm	SM	7	5	420	650	5.04	2.76	M	Palm species introduced to the site, fair condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease, minor from dieback.	2A
7	<i>Corymbia Maculata</i> Spotted Gum	J	9	2	100	180	1.2	1.61	M	Evergreen native tree, tree is in good condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease.	1A
8	<i>Pistacia Chinensis</i> Chinese Pistachio	SM	5	6	300	400	3.6	2.25	M	Deciduous exotic tree, tree is in good condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease.	2B
9	<i>Lophostemon Confertus</i> Brush Box	J	6	3	180	200	2.16	1.68	M	Evergreen native tree, tree is in good condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease.	1A
10	<i>Lophostemon Confertus</i> Brush Box	M	14	17	1100	1040	13.2	3.36	H	Evergreen native tree, tree is in good condition, the species is not rare or endangered, form is typical of the species, no visible evidence of pest or disease, the tree has been 'topped' previously but branch unions appear sound.	2A

Tree Survey Table Notes

Genus, Species and Common Name

The botanical and common name of each tree is identified and recorded. Occasionally the exact species name is unknown; sp. is recorded to indicate this.

Height, Spread, Trunk Dia, DBH and DRB

- The tree's height and spread is recorded in metres.
- The tree DCH is recorded in millimetres. DCH is an abbreviation of Diameter (of the trunk) measured at Chest Height (or 1.2m from the base of the trunk). If more than one trunk is present the DCH is calculated in accordance with AS4970-2009 Protection of Trees on Development Sites.
- If the tree has multiple trunks multiple trunks each trunk DCH (Trunk Dia) will be recorded individually.
- The tree DRB is recorded in millimetres. DRB is an abbreviation of Diameter (of the trunk) measured above the Root Buttress. It is required to calculate the SRZ in accordance with AS4970-2009 Protection of Trees on Development Sites when there is major encroachment within the TPZ, ie. greater than 10% is encroached upon or if there is an encroachment within the SRZ.

Age

The age class of each tree is estimated as either:

J - Juvenile, a young sapling, easily replaced from nursery stock.

SM - Semi Mature, a tree that has not grown to mature size.

M - Mature, a tree that has reached mature size and will slowly increase in size over time.

OM - Over Mature, a tree that has been mature for a long period and is beginning to display signs of decline, e.g. large dead branches.

S - Senescent, an over mature tree that is now in decline.

Amenity Value

Amenity value is a subjective measurement based on the tree's contribution to the landscape, it may be based on the tree's visual form, however it also includes non visual attributes such as provision of shade for a seat, screening of poor views or for privacy, or if it has historical significance. The amenity value is recorded as:

H - High, the trees form is an excellent example of its species and it makes a great specimen and/or it has other attributes such screening, or is historical significance. These trees are visually prominent and valuable to the

community or public domain.

M - Medium, the tree may have an altered form and/or it has attributes that provides amenity to local residents only.

L - Low, the tree is not a good specimen and it does not provide substantial benefit to local residents or the community.

SRZ (Structural Root Zone)

The SRZ is a radial area extending outwards from the centre of the trunk. This area contains the majority of the structural woody roots. This area is responsible primarily for stability. Root damage or root loss within this zone greatly increases the opportunity for decay fungi to ingress into the heartwood, causing internal decay in addition to destabilising the tree's structural integrity. The SRZ is calculated as follows (This calculation is derived from the Australian Standard 4970 – 2009 Protection of Trees on Development Sites):

$$\text{SRZ (Radius)} = (D \times 50)^{0.42} \times 0.64$$

TPZ (Tree Protection Zone)

The TPZ is a circular area with a radius measured by multiplying the DCH by twelve (12), or a circular area the size of the tree's drip line whichever is greater. This area contains the majority of the essential structural and feeder roots responsible for stability, gaseous exchange and water and nutrient uptake. Excavation, back filling, compaction or other disturbance should not occur in this area.

The TPZ is used to identify the minimum area required for the safe retention of a given tree. This calculation is derived from the Australian Standard 4970 – 2009 Protection of Trees on Development Sites. An incursion to 10% within the TPZ is potentially acceptable if no other option is available. A major encroachment (in excess of 10%) is required to be clearly justified by the project Arborist and compensated for elsewhere.

SULE (Safe Useful Life Expectancy)

NOTES ON SAFE USEFUL LIFE EXPECTANCY (SULE RATING) AS USED IN TREE DESCRIPTION TABLE

In a planning context the time a tree can expect to be usefully retained is the most important long-term consideration. Safe Useful Life Expectancy (SULE) is the life expectancy of the tree modified first by its age, health, condition, safety and location (to give safe life expectancy), then by economics, effects on better trees and sustained amenity (Barrell! 1993 and 1995). Trees with short SULE may at present be making a contribution to the landscape but their value to the local amenity will decrease rapidly towards the end of this period, prior to their being removed for safety or aesthetic reasons.

SULE categories

	1 LONG SULE	2 MEDIUM SULE	3 SHORTSULE	4 REMOVALS	5 MOVED OR REPLACED
A	Long: appeared to be retainable alt the time of assessment for over 40 years with an acceptable degree of risk, assuming reasonable maintenance.	Medium: appeared to be retainable at the time of assessment for 15 to 40 years with an acceptable degree of risk, assuming reasonable maintenance.	Short- appeared to be retainable at the time of assessment for 5 to 15 years with an acceptable degree of risk, assuming reasonable maintenance.	Removal: trees which should be removed within the next 5 years.	Moved or Replaced: Trees which can be readily moved or replaced
B	Structurally sound trees located in positions that can accommodate future growth	Trees that may only live between 15 and 40 more years	Trees that may only live between 5 and 15 more years.	Dead, dying, suppressed or declining trees through disease or inhospitable conditions	Small trees less than 5 metres (m) in height
C	Trees that could be made suitable for long-term retention by remedial tree care.	Trees that may live for more than 40 years but would be removed for safety or nuisance reasons.	Trees that may live for more than 15 years but would be removed for safety or nuisance reasons.	Dangerous trees through damage, structural defect, instability or recent loss of adjacent trees.	Young trees less than 15 years old but over 5m in height
D	Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.	Trees that may live for more than 40 years but should be removed to prevent interference with more suitable individuals or to provide space for new planting.	Trees that may live for more than 15 years but should be removed to prevent interference with more suitable individuals or to provide space for new planting.	Dangerous trees through structural defects including cavities, decay, included bark, wounds or poor form.	Trees that have been regularly pruned to artificially control growth'
E		Trees that could be made suitable for retention in the medium term by remedial tree care	Trees that require substantial remedial tree care and are only suitable for retention in the short term.	Damaged trees that are 'clearly not safe to retain	
F				Trees that may live for more than 5 years but should be removed to prevent interference with more suitable individuals or to provide space for new planting	
G				Trees that are damaging or may cause damage to existing structures within 5 years	
H				Trees that will become dangerous after removal of other trees for the reasons given in A) to F).	

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