rain Tree consulting

Arboricultural Management

PO Box 326 AVALON NSW 2107

Mobile 0419 250 248

13 July 2022

242 – 244 BEECROFT ROAD

EPPING, NSW

DEVELOPMENT PROPOSAL

ARBORICULTURAL IMPACT ASSESSMENT REPORT

Report Ref No- 8322

Prepared for
Beecroft Property Developments Pty Limited
C/- Ionic Management Pty Limited
PO Box 165, CRONULLA NSW
T: 0408 220 683

Prepared by
Mark A. Kokot
AQF Level 5 Consulting arborist

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INTRODUCTION

This report has been commissioned by Beecroft Property Developments Pty Limited C/- Ionic Management to assess the remaining Useful Life Expectancy (ULE) and potential impacts that may occur to significant trees in relation to a new development proposal. The proposal consists of constructing a mixed-use residential & commercial facility within Lots 220 & 222 in DP 1251471, being known as 242 - 244 Beecroft Road, BEECROFT NSW.

Recommendations for retention or removal of trees is based on the trees condition, accorded ULE category, current design and potential impacts to trees under this development application.

Development incursions within tree protection zones (TPZ) and impacts to trees have been outlined within Note 2 of Appendix- A where incursions are described as Negligible (0%), Minor (<10%) & Major (>10%) TPZ occupancy having low, moderate to high level impacts within the TPZ. Where site restrictions within notional root zone radiuses exists development impacts or encroachment disturbances are based on author's experience, observations of site conditions, soil type and topography.

In this case the majority of trees are located within confined garden beds or have existing hard surfaces within both the Structural Root Zone (SRZ) & Tree Protection Zone (TPZ). These features have likely restricted radial root expansion where impacts are discussed as low, medium to high level disturbances within tree protection zones.

Each tree assessed has been accorded a temporary identification number and is referred to by number throughout this report. For additional trees not plotted on provided documentation their location has been estimated by taking offsets from existing trees and structures. To determine accurate tree locations and setback of works within the TPZ such trees are recommended to be plotted within survey & design plans. Unless specified otherwise all distances and development offsets within this report are taken from the centre of the tree as indicated within provided survey plans and design documentation.

The trees assessed, their location, development impact and design requirements have been referenced within the Tree Assessment Schedule and Tree Location Plan of Appendices D & E.

Care has been taken to obtain information from reliable sources. All data has been verified as far as possible, however, I can neither guarantee nor be responsible for the accuracy of information provided by others.

METHODOLOGY

1. In preparation for this report a site and ground level visual tree inspection was conducted on Tuesday 14th June 2022 by the author of this report. The principles of tree inspection were primarily adopted from components of Mattheck *& Breloer* 1994 '*The Body Language of Trees*' with basic risk values determined by criteria explained within the ISA TRAQ (tree risk) manual 2017. The inspection included observing the overall health and vigour of trees, tree form, structure and structural condition commencing from near the lower trunk to the upper first order branch division as best as site conditions would allow. On completion of the inspection the retention value of the tree was summarised utilizing the tree inspection Checklist provided within Appendix- C.

2. The inspection was limited to visual observations from within the subject site where the retention value, condition and diameters of neighbouring trees or trees unable to be closely inspected due to site restrictions was estimated. No aerial (climbing) inspections, woody tissue testing, or tree root investigation was undertaken as part of this tree assessment. Within the site tree height and canopy spread was estimated and expressed in metres with trunk diameters measured at approximately 1.4 metres above ground level, rounded off to the nearest 50mm and expressed as DBH (Diameter at Breast Height). Where multi stems at the base exist the stem group diameter was estimated as a tight clump. The height of palms was taken from ground level to the top of the crown shaft only and excludes the central apical spear projection, with palm Tree Protection Zones (TPZ) determined as 1m outside the canopy projection area.

3. This report acknowledges and utilizes the current Australian Standards 'Protection of Trees on Development Sites' AS 4970 – 2009 as explained within Notes of Appendix- A.

4. Plans and/or documentation received to assist in preparation of this assessment include:

   Turner architects project No: 21044 *specific to*:
   - Demolition Plan, Dwg No. DA-051-008 rev 01, dated 5.7.2022
   - GA Plans Lower Ground, Dwg No. DA-110-003 rev 01, dated 5.7.2022
   - GA Plans Ground Level, Dwg No. DA-110-004 rev 01, dated 5.7.2022
   - Basement 01, Dwg No. DA-110-001 &02 rev 01, dated 5.7.2022
   - Elevations Dwg No. DA-210-101, 201, 301, 401 & 501 rev 01, dated 5.7.2022
   - Sections Dwg No. DA-310-101, 201, 301 & 401 rev 01, dated 5.7.2022
   - Shadow Diagram Dwg No. DA-700-101 rev 01, dated 5.7.2022

   Site Image: Landscape Plans job No: SS21_4819 *specific to*:
   - Ground Floor Master Plan Dwg No. 002 Issue D dated 4.7.2022
   - Tree Retention & Removal Plan Dwg No. 003 Issue C dated 4.7.2022

   LTS surveyors:
   - Survey Plan ref No. 51428 001DT, Sheets 1 to 11, rev C dated 22.6.2022

1. SUMMARY OF ASSESSMENT

1.1 General tree assessment

1.1.1 Forty (40) trees or tree groups (screens or hedges) have been assessed for the purpose of this development proposal. Of the forty trees four (4) trees are neighbouring trees and three (3) trees contain low retention values, Within the site twenty-two (22) trees are exempt non-prescribed species noted within Paramatta Council Development Control Plan (DCP 2011), Section 5 Other Provisions Subsection 5.4 Preservation of Trees and Vegetation.

1.1.2 *Neighbouring trees* are identified as trees:

- 10, 32, 33 & 34.

The trees receive moderate to moderate to low level impact by the design footprint indicating the trees could be suitably managed in accordance with Section 2.3 *General tree protection requirements*.

1.1.3 *Low retention value trees* within the site are identified as trees:

- 25, 26 & 27.

The trees contain structural faults that are likely to become problematic in the future or are contained within very narrow garden beds that form retaining walls. Given their location to or within constructed infrastructure or having structural faults that are likely to become problematic in the future the trees should not restrict development applications due to their short remaining safe site usefulness.

1.1.4 *Exempt non-prescribed species* are identified as trees:

- 1, 2, 4, 5, 6, 7, 9, 11, 12, 14x2, 15x2, 17, 19, 20, 22, 23, 28, 29, 30, 31, 39 & 40.

Of these trees T22 is a small dead tree that appears without habitat values.

Being exempt non-prescribed species, the above trees or palms are permitted to be managed (pruned, removed or relocated) without Council consent. Should an exempt species require retention further arborist advice and protection methodology is required prior to works occurring within Tree Protection Zone (TPZ) setbacks.

1.1.5 With exception low retention value trees the remaining trees assessed are considered viable for retention without change in existing site conditions or modification within Tree Protection Zone (TPZ) radiuses as indicated within the SRZ & TPZ distance column of Appendix- D.

1.2 The development proposal

1.2.1 The development proposal consists of constructing a new mixed use commercial & residential facility comprising of multistorey upper levels with deep excavation to accommodate lower-level basement design.

Proposed works are mostly located within existing hard surface footprints with new design encroaching within Tree Protection Zone (TPZ) radiuses of prescribed (protected) and non-prescribed trees.

1.3 Tree removal to accommodate design

1.3.1 Prescribed (protected) trees proposed for removal due to high level impacts by the design footprint or recommended for removal are identified as trees:

- T13, 16, 18, 21, 24, 25, 26, 27, 35, 36, 37 & 38.

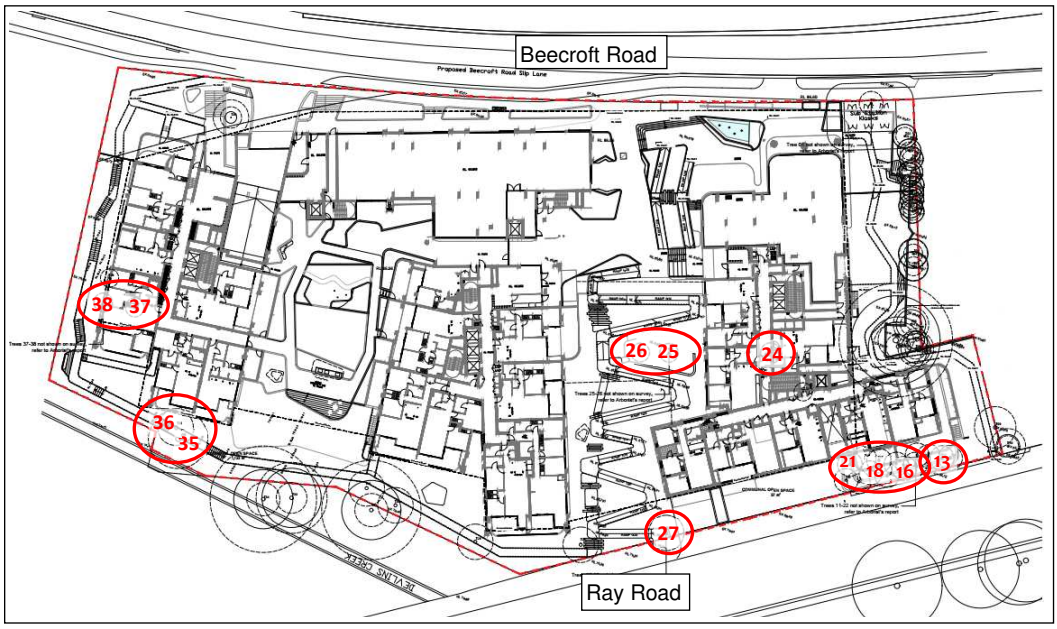
1.3.2 Exempt trees or palms requiring or recommended for removal to accommodate construction are identified as:

- 1, 2, 9, 11, 12, 14x2, 15x2, 17, 19, 20, 22, 23, 28, 29, 30, 31, 39 & 40.

Of the above trees T9 is partly located on the boundary where the tree would likely disrupt retaining wall infrastructure in the near future.

1.3.3 The identified development impacts and design requirements have been detailed within Appendix- D and summarized within the following sections.

Figure 1, design footprint & prescribed (protected) tree removal plan



1.4 Discussion of development impacts – *prescribed trees*

Tree removal:

Prescribed (protected) trees that fall within the building footprint

1.4.1 Those trees which fall directly within building or excavation footprint requiring removal are identified as trees:

- T24, 25, 26, 37 & 38.

Trees receiving Major (>10%) encroachments or works within the SRZ

1.4.2 Prescribed trees which receive high level impacts by design, or proposed landscape or civil design where works are located within the SRZ, *the area required for tree stability* and recommended for removal to accommodate design are identified as trees:

- T13, 16, 18, 21, 27, 35 & 36.

***Tree retention**:*

Trees receiving negligible to Minor (<10%) & manageable impacts by design

1.4.3 The following prescribed trees receive negligible (0%), Minor (<10%) or manageable (<15%) TPZ encroachments where the trees are capable of being managed in accordance with Section 2.3 *General tree protection requirements*.

- T3x10, 8, 10, 33 & 34.

Additional specific recommendations for tree protection & management being site specific are summarized as:

- T3x10 & primarily T8: The retention of the tree(s) requires the existing retaining wall to remain as shown within Figure 2. The retaining wall likely acts as a support structure where should the wall be removed the soil profile may become destabilize resulting in tree failure through soil profile (topography) collapse. For the purpose of maintaining the structural integrity of the embankment prior to site preparation and/or lower demolition works engineers' advice and certification is required to ensure the wall responsible for soil & tree stability remains stable.

  Within the upper terraced garden bed irrigation and mulching is recommended as it is unlikely the tree(s) obtain water resources and nutrients below or beyond the retaining wall foundations towards the development area.
- T33 & 34: Demolition within tree protection zones is to be supervised by an appointed site arborist. At completion of demolition works tree protection fencing is recommended to be installed at a 6m radius from T33 and 7m from T34 forming a tree protection area (TPA) as showing within Figure 3. The TPA is to remain a development activity exclusion zone where no modification of natural soil level is to occur. Proposed civil works within the TPA including pathway construction is to be of tree sensitive design being placed on top of or suspended above ground level.

Trees receiving Major (>10%) encroachments without SRZ occupancy

1.4.4 One (1) tree T32 receives a Moderate to High (20-25%) temporary disturbance within the TPZ consisting of civil works (pathway), potential cut and likely soil compaction by access during construction activities. Based on temporary disturbance within the TPZ the following specific guidelines in tree management are provided:

- Demolition within tree protection zone is to be supervised by an appointed site arborist. Immediately after demolition or removal of concrete surface tree protection fencing is recommended to be installed at a 7m radius forming a tree protection area (TPA), development activity exclusion zone.
- Proposed pathway construction is to be of tree sensitive design being placed on top of or suspended above ground level to protect underlying tree roots.

Figure 2, showing area of retaining wall supporting T8

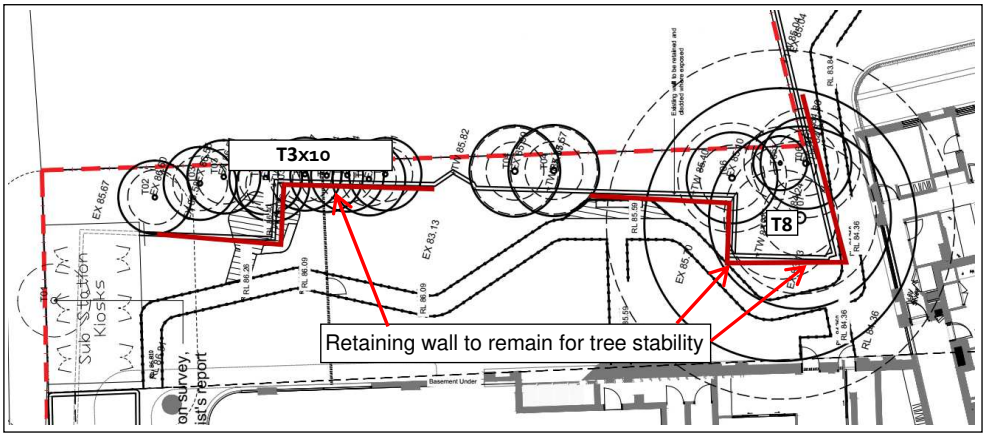
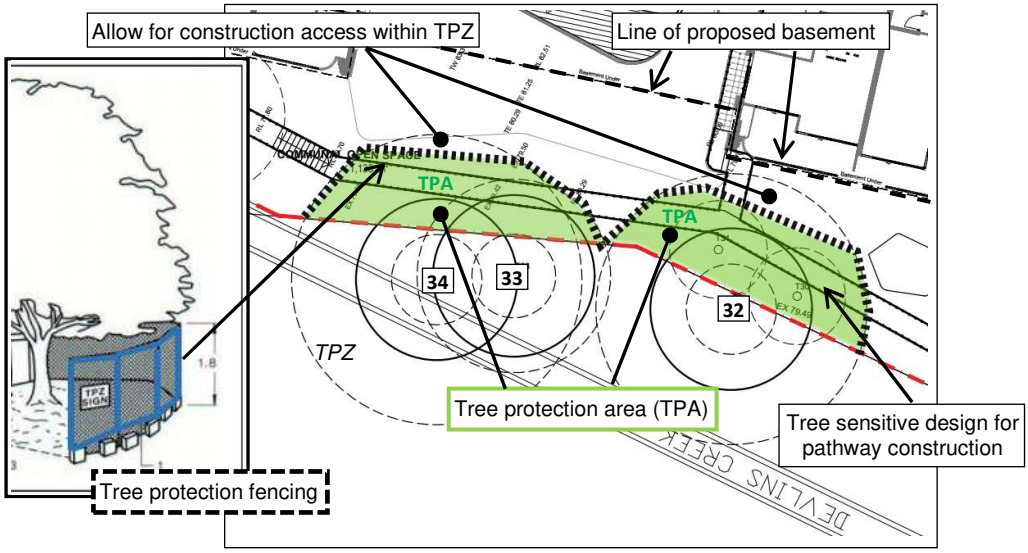


Figure 3, showing protection area adjacent T32, 33 & 34



2. CONCLUSIONS & RECOMMENDATIONS

2.1 Tree Removal

2.1.1 Based on the current proposal the removal of the following twelve (12) prescribed trees is required or recommended to accommodate design.

- T13, 16, 18, 21, 24, 25, 26, 27, 35, 36, 37 & 38.

2.1.2 Non prescribed trees permitted to be managed (pruned, removed or relocated) without Council consent and recommended for removal are identified as trees:

- 1, 2, 4, 5, 6, 7, 9, 11, 12, 14x2, 15x2, 17, 19, 20, 22, 23, 28, 29, 30, 31, 39 & 40.

Of the above trees T4, 5, 6 & 7 are not affected by the design footprint.

Should an exempt species require retention further arborist advice and protection methodology is required prior to works occurring within Tree Protection Zone (TPZ) setbacks.

2.2 Specific tree management recommendations

2.2.1 In addition to the recommendations provided within this report the following summary and/or additional recommendations are provided as a guide for tree protection during works:

a) T3x10 & T8: Prior to works engineers' advice and certification is recommended to be provided that ensures the retaining wall responsible for maintaining soil profile (topography) stability is not disrupted by works, which may include demolition of the existing concrete hard surface at the base of the wall. Tree protection fencing should ideally be located top of the wall to an extent certified by an appointed project arborist acting as a tree protection zone (TPZ) or area (TPA). The inner TPA containing the tees is then to be managed in accordance with Section 2.3 *General tree protection requirements*. No excavation or access is permitted within the TPA without prior project arborist advice and certification.

b) Tree 32, 33 & 34: An appointed project arborist is recommended to supervise demolition of the existing concrete surface within the TPZ ensuring underlying tree roots are managed in accordance with best tree management practices. At completion of demolition the appointed site arborist is recommended to certify tree protection fencing forming a tree protection area (TPA) within the site. Unless approved by the arborist otherwise activities to be prevented within the TPA include machine excavation, including trenching, storage & work preparation, wash down areas, soil level change, utility services and physical damage to trees.

2.3 General tree protection requirements

a) Prior to demolition works Tree Protection Fencing (TPF) and/or zones as identified within Appendix- B are recommended to be located under the guidance of an appointed site arborist. Unless specified otherwise the location of tree protection fencing is to be positioned to allow for adequate work access and/or be located at the extremity of the TPZ radius, see SRZ & TPZ distance column Appendix- D. Where design & construction access may be restrictive timber beam trunk protection is recommended to be installed with ground protection mats provided to protect underlying tree roots within tree protection zones or designated protection areas.

b) Unless approved otherwise activities to be excluded and prevented within TPZ radius include machine excavation, including trenching, storage & work preparation, wash down areas, soil level change, utility services and physical damage to trees.

c) In accordance with AS4970 - 2009 (1.4.4) a Project or Site Arborist is to be engaged to monitor, supervise excavation within TPZ setbacks, advise and provide certification of protection works conducted. The project arborist is recommended to hold a minimum Australian Qualification Framework (AQF) Level 4 certification and be competent in methodology of protecting trees on development sites.

d) The project arborist is to provide final certification outlining tree protection measures with photographic evidence of ongoing works retained for certification purposes (AS4970 S/5.5.2 *Final certification*).

e) The project arborist is to be familiar with protection measures specific to Australian Standard AS4970 'Protection of Trees on Development Sites' – 2009 requirements with any modification in Tree Protection Fencing (TPF) or Zones (Z) to be compliant with AS4970 Section 4.5 *Other Tree Protection Measures.*

f) Unless specified otherwise during approved excavation within TPZ setbacks excavation is to be conducted manually (by hand) under the supervision of an appointed project arborist. Where approved by the arborist the pruning of roots at or <30mm(Ø) is to be conducted in accordance with AS4970 – 2009 Section 4.5.4 *Root protection during works within the TPZ*, such that tree roots are not damaged or ripped beyond the point of excavation by site machinery.

Where larger roots have been encountered they are to be referred to an independent Level 5 arborist for further advice. For deep excavations exposed roots at the excavated cut face are to be protected with jute mesh, geotextile fabric or similar being secured in place to avoid drying of roots and the exposed soil profile.

g) During approved excavation within TPZ setbacks there shall be no over excavation beyond the line of cut as shown within construction drawings. Should over excavation be required the extent of excavation should be detailed within approved drawings or a construction management plan for arborist review and certification.

h) *Additional inground services* which may include landscape works, fencing, sewer, stormwater, water and electrical services, final design and impact to trees shall be reviewed and endorsed by the project arborist prior to their installment. Where landscaping (excavation) is required within the SRZ further advice from an appointed project arborist is recommended.

i) *Tree sensitive construction measures* such as pier and beam bridging over critical roots, suspended slabs, cantilevered building sections, screw piles and contiguous piling can minimize the impact of encroachment (AS4970). Where Bushfire BAL construction conflicts exist with tree management advice the appointed project arborist shall be consulted to advise on an appropriate design outcome.

j) *Canopy pruning / tree removal:* where required tree removal and canopy reductions are to be approved by the Local Government Authority. Works are to be conducted by a suitably qualified AQF Level 3 certified arborist in accordance with AS4373 Pruning Standards, and specifically be conducted in accordance with Safe Work Australia – Guide to managing risks of tree trimming and removal works 2016 (www.swa.gov.au).

k) *Hold points*: specific to no works are to commence without arborist advice, inspections & certifications:

1) Prior to construction arborist certification is required ensuring that all trees have been adequately protected in accordance with this report or as indicated within Australian Standard AS 4970 – 2009 Protection of Trees on Development Sites.
2) No works (including landscaping) shall occur within the SRZ of any tree without prior arborist advice and certification. Where excavation may be required prior exploratory tree root investigation are to identify the location, distribution and impact to underlying tree roots.
3) No excavation shall occur within the TPZ without prior project arborist notification and/or site supervision.
4) No access or work activity is permitted within fenced or designated tree protection zones (TPZ's) or designated areas (TPA's) without arborist advice.

l) To ensure tree(s) are appropriately protected the development site superintendent is recommended to be familiar with all tree protection and ongoing certification requirements.

The superintendent is responsible for informing all subcontractors of the responsibilities and requirements of tree protection prior to their engagement.

m) Should there be any uncertainty with tree protection requirements the site superintendent shall contact the appointed project arborist for advice prior to works occurring within tree protection zones (TPZ) or specified tree protection areas (TPA).

Yours sincerely

Mark A Kokot

AQF Level 5 consulting arborist

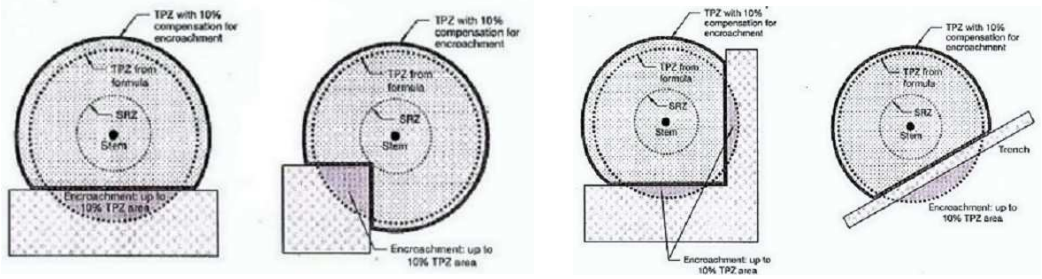
Diploma of Hort/Arboriculture (AQF5), Associate Diploma Parks Management (AQF4)
Certified Arborist / Tree Surgeon (AQF3), ISA Tree Risk Assessment Qualified 6/2024
Member: ISA, Arboriculture Australia & IACA, Working With Children No: WWC0144637E

APPENDICES

APPENDIX- A: Terminology & references

Acceptable Risk: Exposure to or reject risk of varying degrees. The acceptable risk is defined as '*The person who accepts some degree of risk in return for a benefit being exposed to some risk of varying degree.* **Age classes:** (I) Immature refers to a well established but juvenile tree. (ESM) refers to an early semi mature tree not of juvenile appearance. (SM) Semi-mature refers to a tree at growth stages advancing into maturity and full size. (LSM) Late Semi-Mature, refers to a tree between semi-mature and close to mature. (EM) refers to a tree at the first stages of maturity. (M) Mature refers to a full size tree with some capacity for future growth. **Health:** Refers to a trees vigor exhibited by the crown density, leaf colour, presence of epicormic shoots, ability to withstand disease invasion and the degree of dieback. **Condition:** Refers to the tree's form and growth habit, as modified by its environment (aspect, suppression by other trees, soils) and the state of the scaffold (i.e. Trunk and major branches), including structural defects such as cavities, crooked trunks or week trunk / branch junctions. These are not directly connected with health and it is possible for a tree to be healthy but in poor condition. **Decay:** (*N*) – an area of wood that is undergoing decomposition. (*V*) – decomposition of an area of wood by fungi or bacteria. **Decline:** Is the response of a tree to a reduction of energy levels resulting from stress. Recovery from decline is difficult and slow; is usually irreversible. **Defect:** A identifiable fault in a tree. **Epicormic Shoots**: Shoots that arise from latent or adventitious buds that occur on stems and branches and on suckers produced from the base of the tree. A symptom / result of stress related factors. **Footprint:** The area occupied by site structures, including the dwelling driveways and hard surfaces. **Included Bark**: (Inclusion) a genetic weak fault, pattern of development at branch junctions where the bark is turned inwards rather than pushed out, can pose a potential hazard. **Order of branches:** First order being those that are the first to extend from the main trunk or codominant limbs, second order branches extend from the first order and third order branches extend from the second order. **Probability:** The likelihood of some event happening. **Risk:** Is the probability of something adverse happening. **Suppression:** Restrained growth pattern from competition of other trees or structures. **Wound:** Damage inflicted upon a tree through injury to its living cells, may continue to develop further weakening of the structure compromising structural integrity.
NOTE 1: This report acknowledges the current **Australian Standards 'Protection of Trees on Development Sites'** AS 4970 – 2009 with reference to the Tree Protection Zone (TPZ): being a combination of the root and crown area requiring protection. The TPZ takes into consideration the Structural Root Zone (SRZ): The area required for tree stability. Determined by AS4970 - 2009 Figure 1, Table of determining the SRZ, section 3.3.5 of the standards. The standard states where a greater than 10% encroachment occurs the arborist is to take into consideration the schedule of determining impacts as set within AS4970 s. 3.3.4. Encroachments are referred to within this report as major or minor encroachments (AS4970 s. 3.3.2 & 3.3.3). Below is the terminology used for estimated percentage of development incursion used within this report. To retain specific trees and ensure their viability development must take into consideration protection of the TPZ radius.

NOTE 2: The extent of inclusion within the TPZ radius has been categorised as follows:
No impact (0%) incursion, Low to negligible impact (<10%) of minor consequence, 10 - <15% incursion of moderate to low impact, 15 - <20% Medium to moderate level of impact and incursion where the project arborist is to demonstrate the tree/s remain viable by tree sensitive construction techniques, 20 - <25% incursion of Medium to high level of impact, 25 – <35% of High level impact to significant >35% incursion where moderate to high level impacts may require design changes or further information to manage tree vitality. **WBF** = located within the building footprint where design necessitates tree removal.
Showing acceptable incursion within the TPZ (AS4970)



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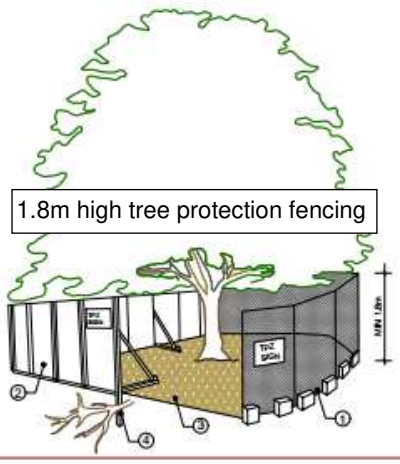
Barrell J. 1993, 'Preplanning Tree Surveys: Safe useful Life expectancy (SULE) is the Natural Progression", Arboricultural Journal 17: 1, February 1993, pp. 33-46.
International Society of Arboriculture (ISA) 2013, Tree Risk Assessment Manual, Martin Graphics, Champaign Illinois U.S.
Mattheck, C. & Breloer, H.(1994) *The Body Language of Trees.* Research for Amenity Trees No.4 the Stationary Office, London.
Matheny N. & Clark J. 1998, Trees & Development *'A Technical Guide to Preservation of Trees During Land Development'* International Society of Arboriculture, Champaign USA.
ProSafe: TPZ encroachment calculator https://proofsafe.com.au/tpz_incursion_calculator.html
Standards Australia 2009, *Australian Standards 4970 Protection of Trees on Development Sites* - Standards Australia, Sydney, Australia.
Standards Australia 2007, *Australian Standards 4373 Pruning of Amenity Trees* - Standards Australia, Sydney, Australia.
Parramatta Council: Development Control Plan (DCP) 2011, Section 5 Other Provisions, 5.4 Preservation of Trees or Vegetation

APPENDIX- B: Tree protection fencing, ground and trunk protection detail

A



1. CHAIN WIRE MESH PANELS WITH SHADE CLOTH (IF REQUIRED) ATTACHED, HELD IN PLACE WITH CONCRETE FEET

2. ALTERNATIVE PLYWOOD OR WOODEN PALING FENCE PANELS. THE FENCING MATERIAL ALSO PREVENTS BUILDING MATERIALS OR SOIL ENTERING THE TPZ

3. MULCH INSTALLATION ACROSS SURFACE OF TPZ (AT THE DISCRETION OF THE PROJECT ARBORIST). NO EXCAVATION, CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR STORAGE OF MATERIALS OF ANY KIND IS PERMITTED WITHIN THE TPZ

4. BRACING IS PERMISSIBLE WITHIN THE TPZ. INSTALLATION OF SUPPORTS TO AVOID DAMAGING ROOTS

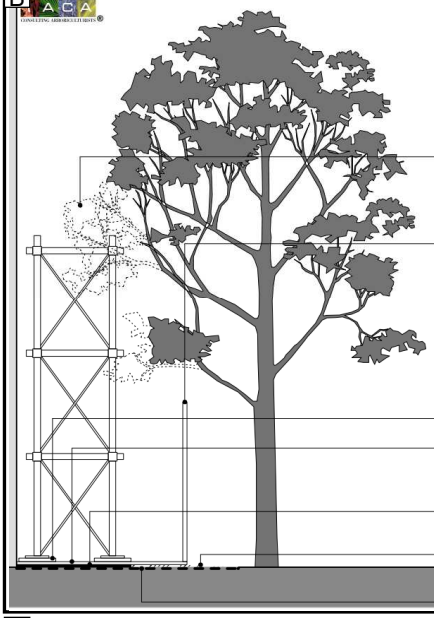
5. PRUNING & MAINTENANCE TO TREE REFER TO AS 4373-2007 PRUNING OF AMENITY TREES

All tree protection fencing or areas requires appropriate signage clearly stating *a TPZ restriction zone* being a designated Tree Protection Area

PROVIDE FENCING AS DETAILED TO ALL TREES PROPOSED TO BE RETAINED ON THE SUBJECT SITE. FENCING TO BE LOCATED TO THE DRIP LINE OF TREES OR AS INDICATED ON PLANS OR DIRECTED ON-SITE BY ARBORIST. NO STOCKPILING WITHIN FENCE PERIMETERS.

TREE PROTECTION ZONE

B



Scaffolding within the Tree Protection Zone

Branches may require pruning to erect scaffolding. Pruning may be subject to local regulations. Flexible branches should be tied back in preference to pruning.

Minimum 1.8m high hoarding. Temporary fencing may be incorporated into scaffolding as either containment screening or as hoarding.

Note:
If excavation is required for installation of support post for fencing, the Project Arborist should assess any pruning of roots greater than 20mm diameter.

Scaffold planks

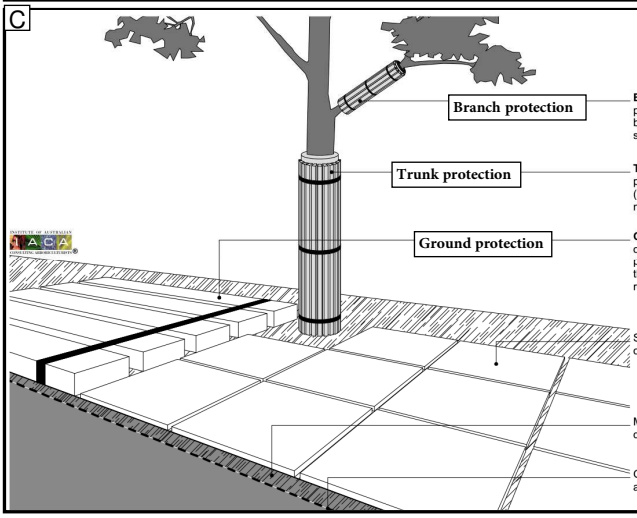
Boards or plywood to be installed over mulch or aggregate layer for any areas requiring access within the TPZ.

Soleplate over geotextile. No excavation for soleplate within TPZ.

Maximum 100mm and minimum 50mm depth mulch or aggregate layer within TPZ.

Geotextile fabric

C



Ground, trunk & branch protection

Branch Protection - use boards and padding to prevent damage to bark on branch. Boards are to be strapped, not screwed or nailed to the branch.

Trunk Protection - use boards and padding to prevent damage to bark (minimum 2m). Boards are to be strapped, not screwed or nailed to the trunk.

Ground Protection - use device strapped over mulch or aggregate layer. Ground protection device should be of a suitable thickness to prevent soil compaction and root damage.

Steel plates (or approved equivalent) with or without mulch or aggregate layer below.

Maximum 100mm and minimum 50mm depth mulch or aggregate layer.

Geotextile fabric underneath mulch or aggregate layer.

APPENDIX- C: Tree Retention Value *Check list* ©rainTree consulting

i) Landscape Significance (LS): The significance of a tree in the landscape is a combination of its amenity, environmental and heritage values.

Values may be subjective however, offer a visual understanding of the relative importance of the tree to the environment. The Landscape Significance of a tree is described in seven categories to assist in determining the retention value of trees.

1	Significant	2	Very High	3	High	4	Moderate	5	Low	6	Very Low	7	Insignificant

ii) Visual Tree Assessment (VTA)

0	If appropriate to VTA - **exempt* trees from Local Government Authority (LGA) Tree Management or Preservation Orders (TPO)	2E	Trees location likely to be affected by infrastructure restricting root growth potential, or tree has potential to cause infrastructure damage where risk mitigation or rectification works may compromise tree anchorage. Tree(s) may be contained by sloid structures with restricted anchoring root potential
0A	Noxious or invasive weed species located within heritage conservation areas		
1	Trees that are dead, significantly declining >75% volume or obviously hazardous	3	This rating incorporates trees that may require further investigation of defects such as cavities or symptoms indicating internal decay to an extent that cannot be quantified under visual examination. Further inspections may be in the way of arborist climbing inspection within the canopy, root crown investigation and/or drill penetrating or Picus Sonic Tomograph ultrasound testing procedures to determine percentage of internal decay.
2	Trees that are structurally damaged. Have poor structure or weak & detrimental large stem inclusions capable or failure opposed to 2B. Tree also may be affected by extensive borer damage, fungal pathogens (wood rot) or viruses. Some symptoms may be reversible, remediated or controlled give appropriate management.		
2A	Tree damage specific to basal and/or root plate damage, or very shallow soils, or steep topography resulting in poor anchorage where condition may become problematic in near future / may include trees with included bark splits to ground level	4	Trees which appear specifically environmentally stressed by drought, poor soil or site conditions. Symptoms may be reversible given appropriate management
2B	Defect specific to stem inclusions development (weak branch attachments) where the condition may not be immediately detrimental however, require annual to biannual monitoring with control to prevent stem failure by installing slings, cable or bracing. Tree may also contain multi stems or codominant twin stems	5	Trees that have become exposed or are subject to wind loading pressure, or have tall forest form where exposure may result in windthrow or limb snap
		5A	Screen trees or shrubs that are routinely hedged or pruned for height control
2C	Tree may contain minor wounds, pest or minor pathogen activity, altered from storm damaged to an extent that is not considered immediately detrimental - may also display average form. Likely to require close annual monitoring or minor corrective pruning	6	Trees may be typical for species type, of good form and visual condition for age class May have suppressed one sided canopies or are low risk trees
2D	Trees significantly altered by recent storm or over pruning events which may reduce retention values due to average form- or tree extensively pruned for power line clearance	7	VTA restricted by canopy or plant material vine or ivy covering tree parts, or site conditions which do not allow access- fences to neighbouring sites

iii) Retention Value (RV): Determined by [1] tree fee of visual defects and viable for retention, [2] viable for retention with minor faults which may reduce ULE, [3] trees which should not restrict development applications containing faults that are likely to become problematic in the short term, [4] trees to be considered for removal due to average condition.

1	High retention	2	Medium retention	3	Low retention	4	Consider removal

iv) U.L.E. categories Useful Life Expectancy (after *Barrell* 1996, modified by the author). A trees U.L.E. category is the life expectancy of the tree modified first by its age, health, condition, safety and location. U.L.E. assessments are not static but may be modified as dictated by changes in trees health and environment.

1. Long U.L.E. - Appear retainable at the time of assessment for over 40 years with an acceptable degree of risk assuming reasonable maintenance.
2. Medium U.L.E. - Appear to be retainable at the time of assessment for 15 to 40 years with an acceptable degree of risk assuming reasonable maintenance.
3. Short U.L.E. - Trees appear to be retainable at the time of assessment for 5 to15 years with an acceptable degree of risk assuming reasonable maintenance.
4. Very short - Removal- Trees which should be scheduled for removal within the very short term or as specified within this report.
5. Small, young or regularly pruned – Trees under 5m in height that can be easily moved or replaced, includes screen plantings or hedge lines.

APPENDIX- D: Tree Assessment Schedule

Refer Appendix- C Tree retention value Checklist

	Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification		Trees with low retention values: senescence, developing defects, or being of low significance, or *exempt trees within the site from the LGA tree management orders

Tree No	***Botanical Name*** **COMMON NAME**	Height x spread (m)	DBH (mm)	SRZ / TPZ (m)	Age	Vigour (health)	Condition (structure)	LS	VTA	RV	U. L.E.	Comments
*1	*Acmena smithii* Lilly Pilly	4 x 2	150at base	1.5 / 2	ESM	Good	Fair / Good	4	0/2E	2	2/5	Exempt tree species height class <5m, located in raised garden bed where location to infrastructure is likely to become problematic in the future
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate proposed Kiosk substation												
*2	*Acacia fimbriata* Fringed wattle	4 x 2.5	150at base	1.5 / 2	ESM	Fair	Fair / Good	4	0/2B	2	2/5	Exempt tree species height class <5m, tin stems at ground level with minor stem inclusion development
Design & impact summary: Short lived species with works located outside of the TPZ. Benefit from removal of exempt non-prescribed tree to clear retaining wall alterations at or near 2.3m from tree for proposed Kiosk substation												
3x10	*Syzygium australe* Bush Cherry	5 x 2.5	150at base	1.5 / 2	ESM	Good	Good	4	2E	2	<2	Screen planting, located in raised garden bed where location to and within infrastructure is likely to become problematic in the future
Design & impact summary: Proposed retention of screen tree plantings. Located in confined garden bed at RL 86.2+ with SRZ & TPZ restricted by tall retaining wall. Root encroachment to lower RL 83.1+ unlikely due to wall foundations indicating likely Negligible available deep soil impact provided existing retaining wall remains as indicated within drawings. Overshadowing may become problematic in maintaining tree vitality												
*4	*Acacia decurrens* Green Wattle	5 x 4	200at base	1.6 / 2.4	ESM	Good	Fair / Good	4	0/2B 2E	2	<2	Exempt non-prescribed tree, located in confined raised garden bed, with minor stem inclusion development in upper branch scaffolds
Design & impact summary: Exempt non-prescribed trees, can be considered for removal & replacement with tree retention having likely Negligible deep soil impact due to tree located within terraced garden bed at RL85.8+												
*5	*Syzygium australe* Bush Cherry	4 x 2	150at base	1.5 / 2	ESM	Good	Fair / Good	4	0/2B/ 2E	2	<2	Exempt tree species height class <5m, Twin stems at near ground level with minor stem inclusion development, located in raised garden bed
Design & impact summary: Proposed retention. Located in confined terraced garden bed. Root encroachment to lower RL unlikely due to wall foundations indicating likely Negligible available deep soil impact provided existing retaining wall remains as indicated within drawings. With tree retention manage in accordance with Section 2.3 General tree protection requirements where overshadowing may become problematic in maintaining tree vitality												

Refer Appendix- C Tree retention value Checklist

	Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification		Trees with low retention values: senescence, developing defects, or being of low significance, or *exempt trees within the site from the LGA tree management orders

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ (m)	Age	Vigour (health)	Condition (structure)	LS	VTA	RV	U. L.E.	Comments
*6	*Acacia decurrens* Green Wattle	6 x 5	150, 100	1.8 / 3	ESM	Good	Fair / Good	4	0/2B/ 2E	2	<2	Exempt non-prescribed tree, suppressed canopy form S side, twin stems at ground level with stem inclusion development, tree in raised garden bed
Design & impact summary: As per T6 proposed retention with Negligible available deep soil impact provided existing retaining wall remains. With tree retention manage in accordance with Section 2.3 General tree protection requirements												
*7	*Acacia decurrens* Green Wattle	8 x 6	350at base	2.1 / 4.2	ESM	Good	Fair / Good	4	0/2A	2	2	Exempt non-prescribed tree, 3x stems at near ground level with minor stem inclusion development, located in raised garden bed
Design & impact summary: Proposed retention. Located in confined terraced garden bed indicating likely Negligible available deep soil impact provided existing retaining wall remains. With tree retention manage in accordance with Section 2.3 General tree protection requirements												
8	*Eucalyptus microcorys* Tallowwood	23 x 17	800	3 / 9.6	SM	Fair	Fair / Good	3	4/2E/ 2C	2	<2	Environmentally stressed with decline in canopy likely a result of poor growing conditions being located within a raised and confined garden bed, lower trunk with reaction wood seams to 1.4m, potential past basal wound W side, lower trunk epicormic shoots indicator of stress
Design & impact summary: Proposed retention. Tree located in confined terraced garden bed at RL85+, where tree would likely to become destabilized should retaining wall be removed as retaining wall is likely acting as a support function. Root encroachment below wall to lower RL83+ is unlikely due to wall foundations indicating potential Negligible root zone impact provided existing retaining wall remains. Based on notional radius of the TPZ the TPZ is occupied by hard concrete surface below retaining wall where hard surface coverage is estimated at or near 67.3% of the TPZ. Basement footprint is of Minor (<10%) TPZ encroachment at or near 7.6% with remaining 59.7% of the TPZ returned to landscaping at completion of fill within the hard surface area. Tree root investigations may provide more information on likely root encroachment beyond wall foundations and impacts within the TPZ with clearer details on proposed and existing levels adjacent the tree within the TPZ recommended. Based on tree retention tree to be managed in accordance with Minor encroachments identified within Section 2.3 General tree protection requirements; specific to; retention of existing retaining wall within the TPZ, supply of irrigation & garden mulch in terraced garden bed. Landscaping and civil works to be of tree sensitive design where visually the tree appears environmentally stressed having decline W side of canopy being likely due to confined and restricted growth media by retaining wall garden bed. Overshadowing likely to become problematic in maintaining tree vitality.											
*9	*Acacia decurrens* Green Wattle	10 x 6	250	2 / 3	ESM	Good	Fair	4/3	0/2E	3	<3	Exempt non-prescribed tree, potentially located partly on boundary at edge of retaining wall where location to infrastructure is very likely to become problematic in the near future
Design & impact summary: Proposed removal of exempt non-prescribed tree partly located on boundary with location to infrastructure likely to become problematic in the future. Given retaining wall at base restricting root encroachment indicates likely Negligible impact provided existing retaining wall remains within notional TPZ.												

Refer Appendix- C Tree retention value Checklist

	Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification		Trees with low retention values: senescence, developing defects, or being of low significance, or *exempt trees within the site from the LGA tree management orders

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ (m)	Age	Vigour (health)	Condition (structure)	LS	VTA	RV	U. L.E.	Comments
10 NT	*Acacia decurrens* Green Wattle	6 x 4	250at base	1.8 / 3	ESM	Good	Fair / Good	4	2C	2	<3	Minor lower trunk wounds S side
Design & impact summary: Retain & manage in accordance with Section 2.3 General tree protection requirements specific to no demolition or excavation within SRZ. Existing low structural retaining wall likely restricting root encroachment within the site with proposed path located outside of SRZ. Notional TPZ encroachment by site access pathway estimated at Minor (<10%) TPZ occupancy of low-level impact.												
*11	*Acacia decurrens* Green Wattle	3 x 3	100	1.5 / 2	ESM	Poor	Fair / Poor	4	0/4	3	<3	Exempt non-prescribed tree in significant decline, with African Olive tree adjacent
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												
*12	*Ligustrum lucidum* Broad Leaved Privet	4 x 2	200at base	1.6 / 2.4	ESM	Good	Fair	5	0	2	2	Exempt non-prescribed tree, twin stems at near ground level with minor stem inclusion development with African Olive tree adjacent
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												
13	*Callistemon viminalis* Bottle Brush	5 x 2.5	150at base	1.5 / 2	ESM	Good	Good	4	6	1	2	Tree with no significant visual faults
Design & impact summary: Proposed removal to accommodate excavation cut with new plantings proposed in terraced garden beds of landscape design												
*14x2	*Acacia decurrens* Green Wattle	3 x 2	100	1.5 / 2	ESM	Fair	Fair	5	0/4	3	<3	Exempt non-prescribed trees, environmental stress and in significant decline
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												
*15x2	*Ligustrum lucidum* Broad Leaved Privet	4 x 2	250at base	1.8 / 3	ESM	Good	Fair / Good	5	0/2A	2	<2	Exempt non-prescribed tree, multi stemmed at base with minor stem inclusion development
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												
16	*Melaleuca quinquenervia* Paperbark	6 x 4	300at base	2 / 3.6	ESM	Good	Good	3	6	1	2	Tree with no significant visual faults
Design & impact summary: Proposed removal to accommodate excavation cut with new plantings proposed in terraced garden beds of landscape design												
*17	*Callistemon viminalis* Bottle Brush	4 x 1.5	100	1.5 / 2	ESM	Good	Good	4	0/6	1	2	Exempt tree species height class <5m with no significant visual faults
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												

Refer Appendix- C Tree retention value Checklist

	Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification		Trees with low retention values: senescence, developing defects, or being of low significance, or *exempt trees within the site from the LGA tree management orders

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ (m)	Age	Vigour (health)	Condition (structure)	LS	VTA	RV	U. L.E.	Comments
18	*Corymbia maculata?* Spotted Gum	11 x 7	450at base	2.4 / 5.4	ESM	Good	Fair	3	2A	2	<2	Three (3x) stems at ground level with stem inclusion development faults, condition likely to become problematic in the future
Design & impact summary: Proposed removal to accommodate excavation cut with new plantings within terraced garden beds of landscape design. Tree contains lower main stem inclusion fault that may likely to become problematic in the future, benefit from removal & replacement due to structural condition, requires flower & fruit for correct ID.												
*19	*Callistemon viminalis* Bottle Brush	4 x 4	200at base	1.6 / 2.4	ESM	Good	Good	4	0/6	1	2	Exempt tree species height class <5m with no significant visual faults
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												
*20	*Ligustrum lucidum* Broad Leaved Privet	5 x 3.5	250at base	1.8 / 3	ESM	Good	Fair	5	0/2B	2	<2	Exempt non-prescribed tree, multi stems at near ground level with minor stem inclusion development
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												
21	*Callistemon viminalis* Bottle Brush	5.5 x 4.5	200at base	1.6 / 2.4	ESM	Good	Good	4/3	6	1	2	Tree with no significant visual faults
Design & impact summary: Proposed removal to accommodate excavation cut with new plantings within terraced garden beds of landscape design												
22	DEAD TREE	6 x 3	150	1.5 / -	-	-	-	6	1	4	4	Dead tree, appears without habitat hollows,
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new plantings in landscape design												
*23	*Acacia saligna* WA Golden Wattle	5 x 4.5	250at base	1.8 / 3	ESM	Good	Fair / Good	4	0/2B	2	3	Exempt non-prescribed tree,
Design & impact summary: Proposed removal of exempt non-prescribed tree located within building or excavation footprint												
24	*Casuarina cunninghamiana* River Oak	5.5 x 3.5	250at base	1.8 / 3	ESM	Good	Good	4	2B	2	<2	Three (3) stems at near ground level with minor stem inclusion development
Design & impact summary: Proposed removal with tree located within building or excavation footprint												
25	*Cupressus sempervirens* Swane's Golden Cypress	7 x 1.5	250at base	1.8 / 3	SM	Good	Good	4/3	2E	3	<3	Located at edge of retaining wall embankment where location to infrastructure is likely to become problematic in the future = low retention value
Design & impact summary: Proposed removal to accommodate RL83.6+ where demolition of existing retaining wall supporting RL79.7 to RL81.2+ will compromise tree anchorage												

Refer Appendix- C Tree retention value Checklist

	Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification		Trees with low retention values: senescence, developing defects, or being of low significance, or *exempt trees within the site from the LGA tree management orders

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ (m)	Age	Vigour (health)	Condition (structure)	LS	VTA	RV	U. L.E.	Comments
26	*Cupressus sempervirens* Swane's Golden Cypress	5 x 1.5	250at base	1.8 / 3	SM	Good	Good	4/3	2E	3	<3	Located at edge of retaining wall embankment where location to infrastructure is likely to become problematic in the future = low retention value
Design & impact summary: Proposed removal to accommodate RL83.6+ where demolition of existing retaining wall supporting RL79.7 to RL81.2+ will compromise tree anchorage												
27	*Schinus areira* Peppercorn	8 x 9	300, 300	2.7 / 7.2	ESM	Good	Fair / Poor	4/3	2A	3	<3	Two (2) stems extending from central decaying stump of past removed tree. Stems poorly attached with likely central basal decay = low retention value
Design & impact summary: Proposed removal of low retention value tree, located within pathway access having excavation cut at RL79.6+ from RL80.5												
*28	*Marraya paniculata* Marraya	av 4 x 2	av 250at base	1.8 / 3	EM	Good	Good	4	0/5A	2	2	Hedge line of exempt tree species height class <5m
Design & impact summary: Proposed removal of exempt non-prescribed hedge line to accommodate new pathway & plantings in landscape design												
*29	*Ligustrum lucidum* Broad Leaved Privet	4 x 2	150at base	1.5 / 2	ESM	Good	Fair / Good	5	0/7	2	2	Exempt non-prescribed tree, vine covered restricting visual assessment
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new pathway in landscape design												
*30	*Syagrus romanzoffiana* Cocos Palm	10 x 5	300	- / 3.5	SM	Good	Good?	4	0/7	2	2	Exempt non-prescribed palm, vine covered to 8m restricting visual access
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new pathway in landscape design												
*31	*Syagrus romanzoffiana* Cocos Palm	14 x 6	300	- / 4	SM	Good	Good	4	0/6	1	2	Exempt non-prescribed palm with no significant visual faults
Design & impact summary: Proposed removal of exempt non-prescribed tree to accommodate new pathway in landscape design												

Refer Appendix- C Tree retention value Checklist

	Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification		Trees with low retention values: senescence, developing defects, or being of low significance, or *exempt trees within the site from the LGA tree management orders

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ (m)	Age	Vigour (health)	Condition (structure)	LS	VTA	RV	U. L.E.	Comments
32 NT	*Syncarpia glomulifera* Turpentine	15 x 11	700	2.8 / 8.4	SM	Good	Good?	3	7	2	2?	Neighbouring tree. Restricted VTA, vine covered to 7m with no access top tree due to vegetation, above ground visual parts appear in good order
Design & impact summary: Proposed retention with Moderate to High (20-25%) new TPZ disturbance by demolition, landscape & pathway at or near 23.9% initial TPZ disruption. Impacts likely to be Minor given works outside of the SRZ with removal of existing hard surface replaced with deep soil landscaping beneficial to tree provided existing natural ground level remains in designated protection area. Given likely low level impact tree management to comply with Section 2.3 General tree protection requirements specific to tree sensitive design within the TPZ, no excavation permitted in SRZ, demolition within TPZ supervised by site arborist, at completion of demolition works install tree protection fencing at 7m radius within the site. Tree protection fencing only to be removed for landscape works with all existing natural ground level RL's to remain within the 7m tree protection area (TPA).												
33 NT	*Ligustrum lucidum?* Broad Leaved Privet	11 x 9	500	2.6 / 6	SM	Fair	Good?	4	0/7	2	2?	Potentially exempt non-prescribed neighbouring tree, complete vine covered canopy + location restricting assessment & access to tree
Design & impact summary: Retain & manage in accordance with Section 2.3 General tree protection requirements specific to no demolition or excavation within SRZ. Proposed path at or near 4.2m from tree with likely Moderate to Low (10-15%) initial disturbance within TPZ. Tree management to ensure no RL' change within TPZ with tree protection fencing installed at 6m radius within the site.												
34 NT	*Cinnamomum camphora* Camphor Laurel	13 x 10	500, 250	2.8 / 9	ESM	Good?	Good?	4	7/2E	2	<2	Neighbouring tree. Located at edge of SW retaining wall embankment where location to infrastructure likely to become problematic in the future
Design & impact summary: Retain & manage in accordance with Section 2.3 General tree protection requirements specific to no demolition or excavation within SRZ. Proposed path at or near 5.1m from tree with likely Moderate to Low (10-15%) initial disturbance within TPZ by landscape design. Tree management to ensure no RL' change within TPZ with tree protection fencing installed at 7m radius within the site. Proposed landscaping within TPZ to be of tree sensitive design ensuring existing RL's remain.												
35	*Cinnamomum camphora* Camphor Laurel	15 x 9	450	2.5 / 5.4	ESM	Good?	Good	4	7	2	2	Restricted VTA vine covered canopy, located in creek bed with restricted access, lower trunk visual parts appear in good order
Design & impact summary: Proposed removal, within footprint for proposed pathway at RL77+, having basement cut of Minor (<10%) encroachment within the TPZ												
36	*Cinnamomum camphora* Camphor Laurel	15 x 9	150, 250	2.3 / 4.8	ESM	Good?	Good?	4	7	2	2	Restricted VTA vine covered canopy with restricted access to tree, twin stems a near ground level, creek below appears 4m below concrete slab
Design & impact summary: Proposed removal, within footprint for proposed pathway at RL77+ having basement cut of Moderate (15-20%) encroachment at or near 18.2% occupancy within the TPZ												

Refer Appendix- C Tree retention value Checklist

	Trees requiring removal due to hazardous or dead condition - subject to Local Government Authority notification		Trees with low retention values: senescence, developing defects, or being of low significance, or *exempt trees within the site from the LGA tree management orders

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ (m)	Age	Vigour (health)	Condition (structure)	LS	VTA	RV	U. L.E.	Comments
37	*Grevillea robusta* Silky Oak	16 x 8	650?	2.8 / 7.8	SM	Fair / Good?	Fair / Good?	4/3	7	2	2?	Restricted VTA site & vegetation, vine covered to 15m with restricted access to tree in creek bed
Design & impact summary: Proposed removal, tree located within building or excavation footprint												
38	*Cinnamomum camphora* Camphor Laurel	15 x 9	750?	3 / 9	SM	Good	Good?	4/3	7	2	2?	Restricted VTA site & vegetation, vine covered canopy with restricted access to tree in creek bed
Design & impact summary: Proposed removal, tree located within building or excavation footprint												
*39	*Casuarina cunninghamiana* River Oak	4 x 2	150	1.5 / 2	ESM	Good	Fair	4	0/2C	2	<2	Exempt tree species height class <5m, of poor form due to past impact damage S side
Design & impact summary: Proposed removal of exempt tree species located within building or excavation footprint												
*40	*Acacia saligna* WA Golden Wattle	3.5 x 4.5	250at base	1.8 / 3	ESM	Good	Fair / Good	4	0/2A/ 2B	2	3	Exempt non-prescribed short lived tree with minor stem inclusion development faults in upper branch scaffolds & base
Design & impact summary: Proposed removal of exempt tree species located within building or excavation footprint for landscape design												

APPENDIX- E: Tree Location Plan