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

VTA 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 &/or risk mitigation or rectification works may compromise tree anchorage. Tree(s) may be contained within a vault have restricted anchoring root potential
0A	Noxious or invasive species located within heritage conservation area		
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, 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 would benefit from crown maintenance pruning as identified within the Australian Standards AS 4373 – 2007 Pruning of Amenity Trees
		5A	Trees that require little or no maintenance at time of inspection other than close monitoring
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- C: Tree Assessment Schedule

	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 *exempt trees from the LGA Tree Preservation Order (TPO)

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ	Age	Vigour	Condition	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
1	*Araucaria heterphylla* Norfolk Island Pine	30 x 16	950	3.3m / 11.4	SM	Good	Good	3	7	2	2	Restricted VTA above ground visual parts appear in good order, confined in rock escarpment, SRZ & TPZ likely to be greater
Design & impact summary		*Retain & protect; Low to Moderate (10-15%) TPZ coverage & impact by suspended design footprint having at or near 12% coverage, no encroachment identified within notional SRZ, requires footing plan and details of any excavation within TPZ for arborist review. Where excavation is required within 8m of the tree, tree root investigations are recommended to identify root zone conflicts*										
2	*Glochidion ferdinandi* Cheese Tree	11 x 7	250	2 / 3	ESM	Fair / Good	Good	3	6	1	2	Tree with no significant visual faults
Design & impact summary		*Remove; located within building footprint*										
3	*Corymbia maculata* Spotted Gum	17 x 8	300	2.1 / 3.6	ESM	Good	Good	3	7/4	2	2	Restricted VTA, Suppressed canopy form biomass – W, above ground visual parts appear in good order
Design & impact summary		*Remove; High level impact (<35%) with excavation within SRZ & TPZ to accommodate RL24.7*										
4	*Corymbia maculata* Spotted Gum	16 x 9	400	2.4 / 4.8	ESM	Good	Good	3	4	2	2	slightly environmentally stressed with minor suppressed canopy form biomass – E, NE
Design & impact summary		*Remove; High level impact (<35%) with excavation within SRZ & TPZ to accommodate RL24.7*										
*5	*Phoenix canariensis* Phoenix Palm	9 x 7	700	- / 4.5	SM	Good	Good	4	0	1	1	Exempt palm species
Design & impact summary		*Exempt species. Manage in accordance with design requirement, recommend removal due to location to dwelling*										
*6	*Cinnamomum camphora* Camphor Laurel	10 x 8	350	2.3 / 4.2	ESM	Good	Good	5	0	1	1	Non-prescribed exempt tree species
Design & impact summary		*Remove: exempt species located within building footprint (WBF)*										
*7	*Phoenix canariensis* Phoenix Palm	6 x 6	500	- / 4	ESM	Good	Good	4	0	1	1	Exempt palm species
Design & impact summary		*Remove: exempt species located within building footprint (WBF)*										

	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 *exempt trees from the LGA Tree Preservation Order (TPO)

Tree No	***Botanical Name*** **COMMON NAME**	Height x spread (m)	DBH (mm)	SRZ / TPZ	Age	Vigour	Condition	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
8	*Corymbia maculata* Spotted Gum	26 x 18	1050	3.5 / 13.8	M	Good	Fair / Good	3	2C	2	2	Typical for species type in age class, upper branch scaffolds failures evident, Large diameter deadwood, large surface roots W = SRZ & TPZ likely to be greater
Design & impact summary		*Retain; moderate (15-20%) coverage over SRZ & TPZ, with excavation to accommodate RL24.7. Existing RL's vary from near 24.8+ indicating likely excavation impact within SRZ & TPZ requires further information to determine impacts within a notional TPZ by tree root investigations*										
9	*Corymbia maculata* Spotted Gum	20 x 10	450	2.5 / 5.4	ESM	Good	Good	3	6	1	2	Narrow suppressed canopy form biomass E, NW, with no significant visual faults
Design & impact summary		*Retain; Minor impact of moderate to low (10-15%) coverage within TPZ with proposed suspended dwelling at RL24.7. Adjacent spa requires more detail in construction / excavation for hydraulic plan with access path to be suspended within the TPZ*										
*10	*Pittosporum undulatum* Native Daphne	7 x 6	450at base	2.3 / 5.4	M	Fair / Good	Fair	4	0/2A	2	3	Exempt tree species height class <8m tall, Multi stemmed at base, with stub end decline & decay NW side
Design & impact summary		*Remove: located directly adjacent building footprint*										
11	*Corymbia maculata* Spotted Gum	15 x 8	300	2.1 / 3.6	ESM	Good	Good	3	6/7	1	2	Restricted VTA above ground visual parts appear in good order
Design & impact summary		*Remove: located within building footprint (WBF)*										
12	*Corymbia maculata* Spotted Gum	14 x 5	250	2 / 3	ESM	Good	Fair / Poor	3	2A	3	3	Structurally defective tree at base W side = low retention value
Design & impact summary		*Remove. Likely high level impact with excavation within SRZ, rock at base restricting radial root spread indicates likely tree decline or failure by proposed cut & RL at 23.6, building elevation likely to conflict with tree trunk indicating removal to accommodate design.*										
13	*Glochidion ferdinandi* Cheese Tree	12 x 11	450	2.5 / 5.4	EM	Good	Good	3	6	1	2	Located at edge of embankment, exposed surface roots NW, located on rock
Design & impact summary		*Remove: located within building footprint (WBF)*										
14	*Glochidion ferdinandi* Cheese Tree	10 x 9	350	2.3 / 4.2	SM	Good	Good	3	6	1	2	Located at edge of embankment / steep slope, with Suppressed canopy form biomass W, NW
Design & impact summary		*Remove: located within building footprint (WBF)*										
*15	*Phoenix canariensis* Phoenix Palm	6 x 7	600	- / 4.5	ESM	Good	Good	4	0/6	1	2	Exempt palm species located at edge of embankment

	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 *exempt trees from the LGA Tree Preservation Order (TPO)

Tree No	***Botanical Name*** **COMMON NAME**	Height x spread (m)	DBH (mm)	SRZ / TPZ	Age	Vigour	Condition	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
Design & impact summary		*Remove: located within building footprint (WBF)*										
16	*Corymbia maculata* Spotted Gum	24 x 21	950	3.3 11.4	M	Good	Good	3	6/7	1	2	Restricted VTA above ground visual parts appear in good order. Large rock at base W side = SRZ & TPZ likely to be greater
Design & impact summary		*Proposed retention; potential moderate level impact (<20%) with likely part excavation within TPZ to accommodate design. Rots likely confined between rocks indicating impacts may be greater than determined.*										
*17	*Phoenix canariensis* Phoenix Palm	5 x 7	550	- 4.5	ESM	Good	Good	4	0	1	2	Exempt palm species
Design & impact summary		*Exempt species; manage in accordance with design requirement*										
18	*Corymbia maculata* Spotted Gum	22 x 20	700	2.8 8.4	M	Good	Good	3	6	1	2	Suppressed canopy form biomass NW. Located at edge of embankment / steep slope
Design & impact summary		*Proposed retention; requires further information of proposed swimming pool construction methodology at proposed RL20.1, extent of excavation to accommodate design to be clearly detailed within construction drawings which may require rock demolition within TPZ, spa should be excluded from SRZ with SRZ & TPZ disruption likely to be of a moderate (<20%) impact by design.*										
*19	*Phoenix canariensis* Phoenix Palm	7 x 5	650	- 3.5	ESM	Good	Good	3	0/2E	2	2	Located at edge of embankment where location likely to become problematic in the future
Design & impact summary		*Exempt species; manage in accordance with design requirement*										
20 NT	*Corymbia maculata* Spotted Gum	22 x 24	950	3.3 11.4	M	Good	Good	3	6	1	2	Located at edge of minor sloping embankment, with no significant visual faults
Design & impact summary		*Protect; Minor (10%) incursion within TPZ, to minimise TPZ incursion minimal over excavation to accommodate garage level excavation recommended, arborist supervision to manage any encountered tree roots during works*										
21 NT	*Corymbia maculata* Spotted Gum	26 x 22	700, 650	3.5 15	M	Good	Good	3	6	1	2	Restricted VTA above ground visual parts appear in good order
Design & impact summary		*Protect; Likely low level to Minor (<10%) incursion within TPZ due to existing retaining wall at or near boundary, extent of wall demolition to accommodate secondary dwelling and any additional excavation to be clearly detailed within construction drawings, no over excavation beyond the southern part boundary wall recommended, arborist supervision to manage any encountered tree roots during works*										

	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 *exempt trees from the LGA Tree Preservation Order (TPO)

Tree No	*Botanical Name* COMMON NAME	Height x spread (m)	DBH (mm)	SRZ / TPZ	Age	Vigour	Condition	Signifi-cance	VTA	RV	U. L.E.	Comments CV = Council verge tree NT= Neighbouring tree
22 NT	*Corymbia maculata* Spotted Gum	18 x 11	800	3 / 9.6	M	Good	Poor	3	2	3	3	Structurally defective tree with open wounds & fungal conks (brackets) throughout lower trunk and branch scaffolds
Design & impact summary		*Protect; tree noted as structurally defective having short ULE. Location of swimming pool outside of SRZ with over all TPZ occupancy considered Minor (10%) of low impact*										
23 NT	*Corymbia maculata* Spotted Gum	17 x 12	450	2.5 / 5.4	ESM	Good?	Good	3	7	1	2	Restricted VTA vegetation, above ground visual parts appear in good order
Design & impact summary		*Protect; likely Minor (<10%) TPZ incursion having low level impact within TPZ with design suspended above ground level at RL.24.7*										
24 NT	*Cinnamomum camphora* Camphor Laurel	13 x 11	450at base	2.3 / 5.4	ESM	Good	Fair / Good	5	2B	2	2	Narrow suppressed canopy form biomass N-E, twin stems at 1m with minor stem inclusion development
Design & impact summary		*Protect; Negligible TPZ occupancy by design*										