



Arboricultural
Consultants



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March 2022

Arboricultural Survey – Elliot Road & Paltara Way, Wanneroo



Arboricultural Advice for the City of Wanneroo

Date inspected: 23rd March 2022

Project: Civil Works – Elliot Road & Paltara Way, Wanneroo

Attention: [REDACTED]

Scope

The City of Wanneroo has commissioned this consultant to provide a report regarding the potential for retention of seven designated trees in proximity of the proposed widening of the Elliot Road and Paltara Way roadway and footpath construction on the southern verge of Elliot Rd.

This consultant confirms attending the above site to inspect the trees and site conditions on the 23rd of March 2022.

The inspection consisted of several parts:

- Identification of tree species in proximity of proposed works.
- Measurement and documentation of the height, canopy spread and trunk diameters of each tree.
- Examination, observation and documentation of the current health and structural condition of each tree.
- A calculation of tree protection and structural root zone radius of each tree based upon AS4970 – 2009 *Protection of trees on development sites*.
- Recommended clearance of ground works from the inspected trees to ensure root damage is minimised and trees remain in a viable condition.
- Provision of advice regarding remedial pruning or other works that may be required.

This consultant confirms a site visit to inspect the trees was carried out on the 23rd of March 2022 with a total of 7 trees inspected.



Figure 1 Indicating the location of the trees inspected

Tree Survey Data (Refer also to Tree Photos pages Figures 7 – 10)

Tree no	Location	Species	Height (m)	Canopy Spread (m)	DBH (mm)	Health and structural condition	TPZ (m radius)	SRZ (m radius)	Comments & Recommendations
1	adjacent no. 83 Paltara Way	<i>Allocasuarina fraseriana</i>	11.6	10	900	Mature. Good health and fair structure. Displays a full canopy of healthy foliage and active extension growth and holds a small amount of minor dead wood. Fire damage and associated cavities evident at the base with prominent wound wood visible. Root plate firm. Surface roots not evident.	10.8	3.5	High retention value. 400mm depth of excavation required for road widening Excavation on western side only - recommended <u>minimum</u> clearance of 4m from the base of the tree
2	Cnr of Elliot Rd & Paltara Way	<i>Allocasuarina fraseriana</i>	8.6	8.5	720	Mature. Good health and fair structure. Displays a full canopy of healthy foliage and active extension growth supported by lower lateral limbs that have developed in response to the decline of the apical limb due to previous fire damage. No evidence of significant lower trunk or basal decay. No termite activity visible. Accumulated debris has raised level around the base. No surface roots visible. Low growth may require lifting.	8.6	3.1	Moderate retention value 400mm depth of excavation required for road widening (Paltara Way). Excavation on western side only - Recommended <u>minimum</u> clearance of 4m from the base of the tree. Excavation for Elliot Road appears outside of TPZ radius of this tree.

Tree no	Location	Species	Height (m)	Canopy Spread (m)	DBH (mm)	Health and structural condition	TPZ (m radius)	SRZ (m radius)	Comments & Recommendations
3	Cnr of Elliot Rd & Paltara Way	<i>Eucalyptus marginata</i>	14.7	13	620	Mature. Good health and structure. Full canopy of healthy foliage with some evidence of previous minor canopy dieback. Sporadic, predominantly minor deadwood. No evidence of fungal decay or termites. Root plate firm. Some lifting of the root crown within 1m of the base. No surface roots evident. Low growth may require lifting.	7.4	2.9	High retention value. 500mm depth of excavation assumed due to proximity to corner. Excavation on western and southern sides required - Recommended <u>minimum</u> clearance of 4m from the base of the tree western side. Recommended <u>minimum</u> clearance of 5m from the base of the tree southern side. Canopy lift likely to be required if tree is retained.
4	Cnr of Elliot Rd & Paltara Way	<i>Eucalyptus marginata</i>	6	na	300	Tree is dead	3.6	2.0	Removal recommended.
5	Opp. 68/70 Elliot Rd	<i>Allocasuarina fraseriana</i>	11.7	9	630	Mature. Good health and fair structure with a full canopy of healthy foliage and active extension growth evident. Upright form and previous limb failure the northern side over path evident. Lower southern limb supporting the crown forms an included fork. No evidence of fungal decay or termites. Root plate firm. No surface roots visible.	7.6	2.8	High retention value. 500mm depth of excavation required Recommended <u>minimum</u> clearance of 4.0m from the base of the tree southern side.

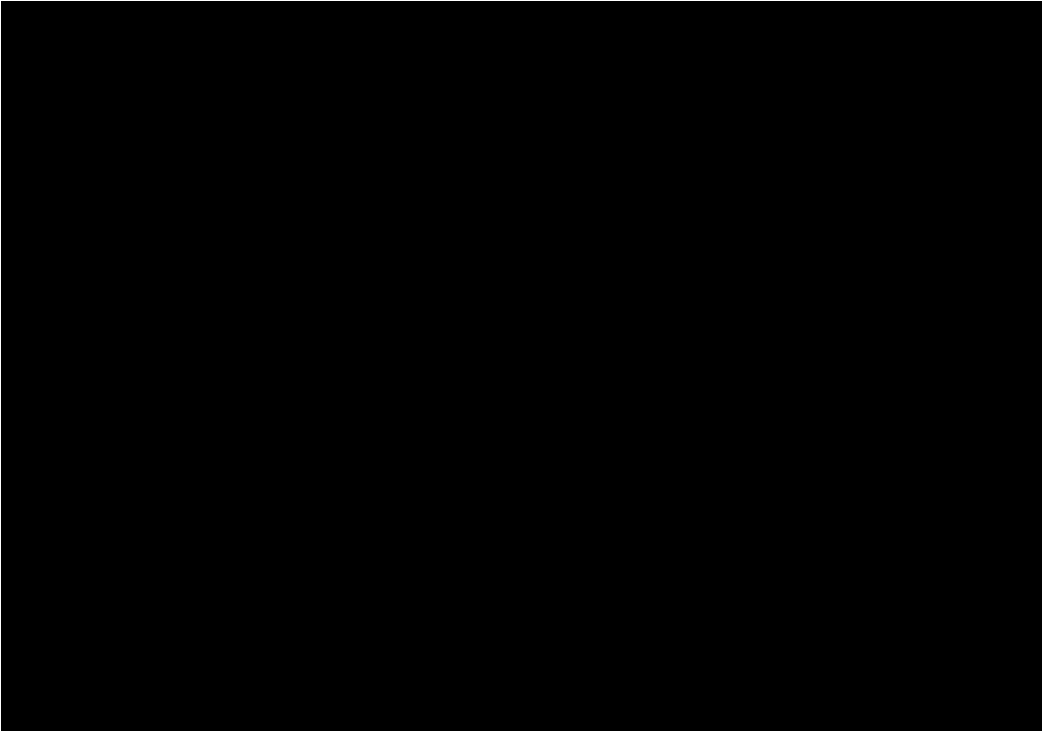
Tree no	Location	Species	Height (m)	Canopy Spread (m)	DBH (mm)	Health and structural condition	TPZ (m radius)	SRZ (m radius)	Comments & Recommendations
6	Adj. 70 Elliot Rd	<i>Agonis flexuosa nana</i>	3.7	5.2	340	Mature, dwarf form of the species. Good health and structure with a dense cover of healthy foliage supported by multiple leaders. Root plate firm.	3.4	2.0	Moderate retention value. 100mm depth of excavation for pedestrian path. Recommended <u>minimum</u> clearance of 1.5m from the base of the tree northern side.
7	Opp. 96 Greenfields Ct	<i>Eucalyptus marginata</i>	10.7	na	1070	Dead tree displays evidence of termite damage and black ants active within outer wood layers. Crown structure previously pruned to lower sections of scaffold limbs. Appears root firm at this time.	12.8	3.7	Removal recommended.

Summary /Recommendations

- Two of the seven trees inspected were identified as deceased *Eucalyptus marginata* (Jarrah), with the smaller tree (Tree 4) appearing to have died recently, and both were recommended to be removed.
- The three *Allocasuarina fraseriana* (Western Sheoak) are remnants of the previous woodland of the locality and as a species are of a high retention value, however the structural form and condition of Tree 2 renders it to be of lesser retention value, while Tree 5 is located approximately 4.3m from the existing Elliot Rd roadway and is very unlikely able to be retained in a stable and viable condition. The retention Tree 1 (adjacent 83 Paltara Way) appears able to be achieved and protection and management of this tree through the course of the project is recommended.
- The *Eucalyptus marginata* (Jarrah) – (Tree 3) is also a species endemic to the locality and this tree was found to be in good health and condition and should be retained if at all possible. It is therefore recommended that design and construction options that may mitigate the risk of root and canopy damage to this tree are fully considered prior to a decision to remove the tree being made.
- The *Agonis flexuosa* “nana” (Dwarf Peppermint) has been planted and excavation close to the tree appears relatively minor and this tree should therefore be retained. Nevertheless if removal is required, it may be readily replaced.

General Recommendations

- Temporary fencing to separate adjacent trees to be retained from the site area is recommended.
- Excavation in proximity of trees to be retained is to be carried out by small, tracked machinery fitted with a flat bladed bucket wherever practicable. The initial use of smaller machinery adjacent trees to be retained is likely to limit root damage by allowing roots to be exposed and cleanly cut prior to larger machinery working the area, thereby preventing splitting and tearing of roots that may extend back to the base of the tree.
- Further Arborist advice shall be sought where roots of trees to be retained greater than 30mm in diameter are required to be cut to complete the works.
- The parking of vehicles, tool and equipment storage, materials storage and equipment cleaning areas shall be located within open areas a minimum of 6.0m from the base of all adjacent trees.
- No canopy pruning is to be undertaken without arborist approval.



Limitation of liability

Trees can be managed, but they cannot be controlled. To live or work near a tree involves a degree of risk.

This report only covers identifiable defects present at the time of inspection. Paperbark Technologies accepts no responsibility and cannot be held liable for any structural defect or unforeseen event/situation or adverse weather conditions that may occur after the time of inspection.

Paperbark Technologies cannot guarantee that the tree/s contained within this report will be structurally sound under all circumstances, and is not able to detect every condition that may possibly lead to the structural failure of a tree. Paperbark Technologies cannot guarantee that the recommendations made will categorically result in the tree being made safe.

Unless specifically mentioned this report will only be concerned with above ground inspections, as such all observations have been visually assessed from ground level. Trees are living organisms and as such cannot be classified as safe under any circumstances. Trees fail in ways that the arboriculture industry does not fully understand.

The recommendations are made on the basis of what can be reasonably identified at the time of inspection therefore Paperbark Technologies accepts no liability for any recommendations made.

All care has been taken to obtain information from reliable sources, however Paperbark Technologies can neither guarantee nor be responsible for the accuracy of information provided by others.

In the event that reinspection of the tree/s is recommended it is the client's responsibility to make arrangements with Paperbark Technologies.

Tree photos

Tree 1



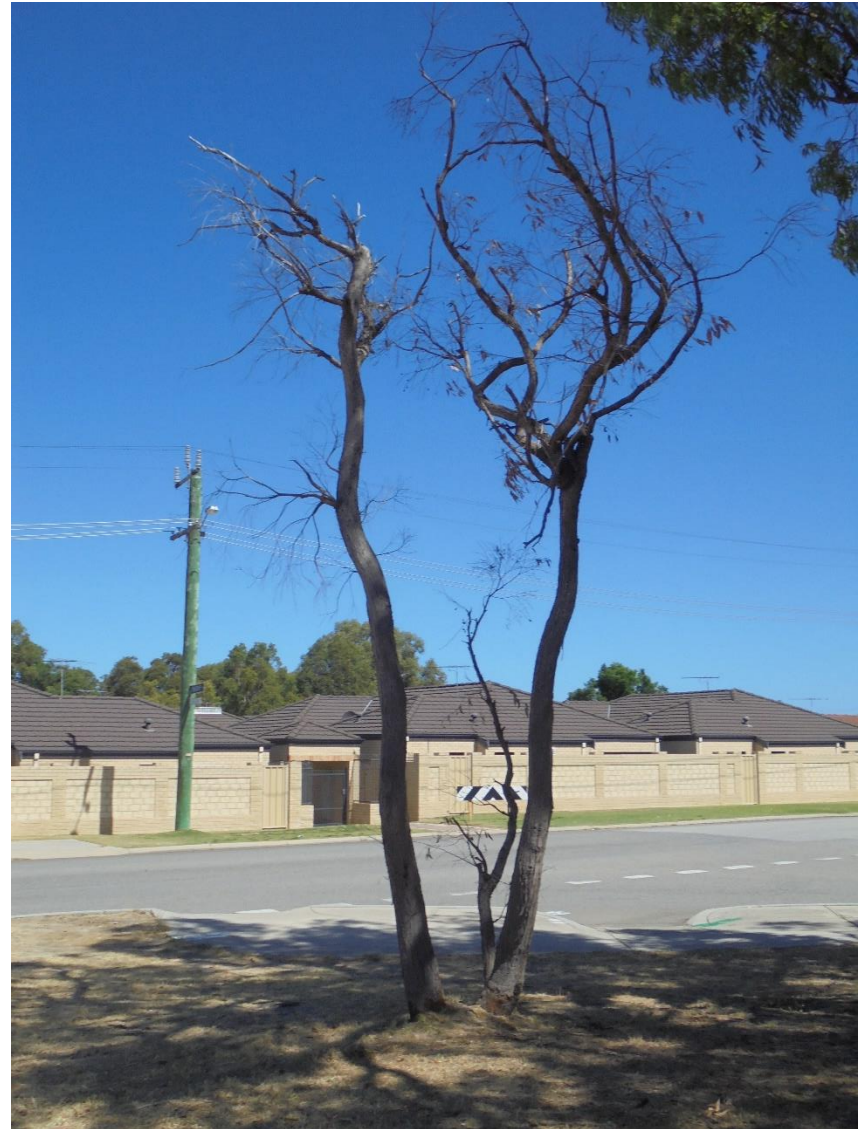
Tree 2



Tree 3



Tree 4



Tree 5



Tree 6



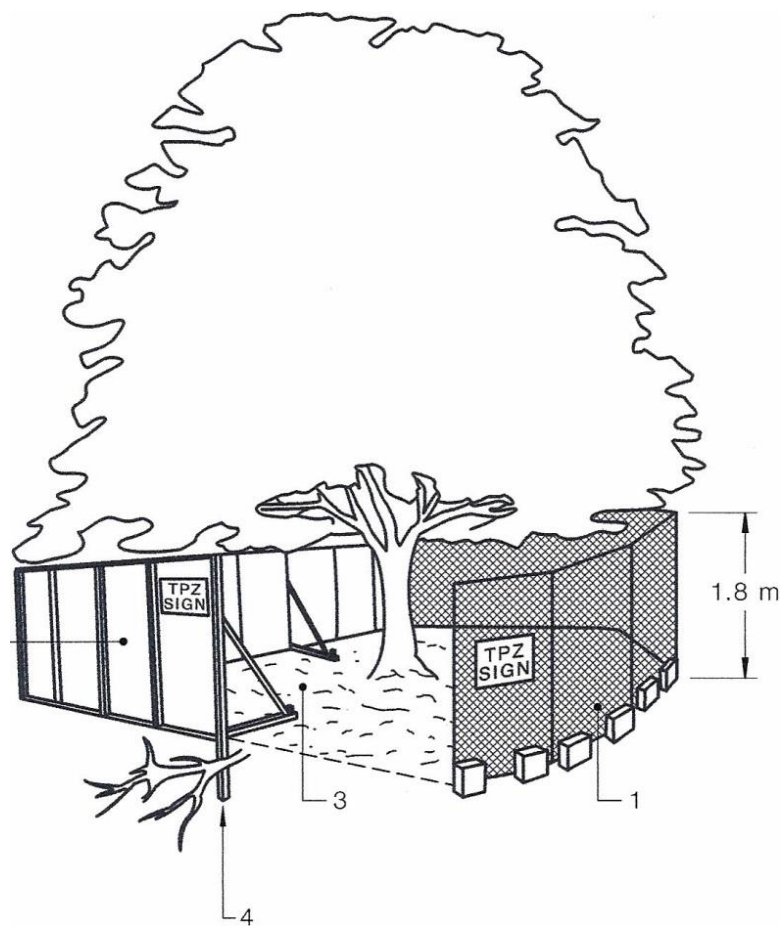
Tree 7



Appendix 1.

Tree Protection Fencing

(as per AS4970- 2009 *Protection of trees on development sites*)



LEGEND:

- 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. This 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 should avoid damaging roots.