



TREE REPORT

Client: City of Melville
Contact: Janine Ahola – Act. Manager Natural Areas & Parks
Site: 63 Ardross Street - Applecross

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INTRODUCTION

Janine Ahola requested Jonathan Epps to carry out an inspection of a mature tree (subject tree) on the verge at the side of the property known as 63 Ardross Street, Applecross. The tree inspection is to report on the trees' structural condition, general health status, 'risk status', useful life expectancy, and to provide any future management guidelines.

TREE INSPECTION

This took place on Monday 6th January 2020. The weather was warm, sunny and clear. The air temperature was around 30°C. Observations were taken from ground level. More advanced tree inspections such as by aerial methods may be required and are recommended, if needed, in the report. Digital images were taken of the subject tree and are included in this report. The subject tree was originally inspected by Jonathan Epps in December 2009. It was found to be sound & healthy at that time – Epps Tree Report – City of Melville – 7 December 2009 – page 5.

SUBJECT TREE

The subject tree is a Coral or Flame tree – *Erythrina* sp – see image below



METHODOLOGY

The subject tree was inspected from ground level, for the following

Root plate heave and/or disturbance
Exposed roots – lowering of soil level/grade – trip hazard
Infill at base of stems – raised soil levels – collar rot
Girdling roots – roots encircling the stem may cause 'ring barking' – bark necrosis
Basal cavities – hollows, fungal brackets/fruited bodies
Crown galls
Termite activity
Climbing plants
Proximity of underground/overground services
Proximity of aboveground structures, eg houses, retaining walls, etc
Bark tears, lesions, splits and cracks
Oedema – and other unnatural swollen & cracked areas in bark tissue
Physical abnormalities, eg lightning strikes, bridge grafts, etc
Unnatural change in bark colour, texture and form
Compression folds in bark
Decay pockets in stem
Excessive gum, sap, kino exudation and/or weeping
Borer, cossid moth and other insect activity
Included bark at major stem and branch unions
Evidence of tree surgery and infrastructure, eg cabling, Cobra/Yale Bracing, signs and other abiotic tree attachments
Branch attachments
Evidence of topping, lopping and/or pollarding history
Flush cuts – removal of branch collar
Branch sockets – areas where branches have been torn out and away from union
Branches of uneven taper
Crossing, broken and hung-up branches – branch stubs
Die-back symptoms – stag heading and reduction in foliage density
Major dead wood – over 10mm in diameter
Minor dead wood – under 10mm in diameter
Mycoplasma attack
Foliage – change in lamina colour, size, shape and thickness variation
Epicormic growth
Growth habit of tree – leaning, crooked or asymmetrical growth

INSPECTION DETAILS/DISCUSSION

The subject tree stands in Munro Road at the side of 63 Ardross Street, Applecross. It is a regrown pollard that stands around 14m tall with a crown spread of some 20m. It has a DBH (diameter at breast height usually taken at 1.4m agl – in this case it was taken below this height, due to the stem division at 1.7m agl) of 1.1m. The verge is reticulated. The stem is 1.7m from the public concrete footpath, 4.1m from the concrete cross over on the west side. The stem is 2.8m from the boundary fence – a rendered construction at 63 Ardross street.

There is an exposed root crown area on the south east side at the base of stem. There are multiple old wounds in this area. This is likely due to 'whipper snipper' damage. All such wounds are occluding well. There is evidence of similar damage at the base of the stem, property side.

There is a partially exposed lateral root in the grass verge between the subject tree's stem and the public footpath.

The stem divides at 1.7m agl into three leaders or separate upright stems. At the union of these three leaders is evidence of a former branch removal wound around 400mm in diameter. The exposed wood appears sound. Behind this wound on the property side is a partially lopped branch that has most of its bark missing. The exposed wood appears sound.

The tree has a slight lean to the north. The tree has a history of lopping and/or topping that has taken place at around 2.5 – 3m agl – above ground level. The regrowth appears sound and healthy. There is evidence of an old branch failure wound at around 6.5m agl on the road side. The wound wood tissue surrounding this wound appears healthy and there is no evidence of decay in this area. There is a branch removal wound with a tear in the low crown east side near the road – see image below. The exposed wood appears sound. There is evidence of branch removal wounds in the low crown property side. The exposed wood in all of these old wound sites appears sound.



There is evidence of a partially exposed lateral root lying between the grass verge and a garden bed on the property side. The partially cut root is 75mm in diameter – see image below.



A NOTE ON TREE RISK ASSESSMENT

The tree risk rating has been based on the ISA – International Society of Arboriculture – TRAQ – Tree Risk Assessment Qualification method – 2019. The grades or levels of risk using this method are – Low – Moderate – High – Extreme. The method used is a qualitative one that considers not only the tree's structure but its surrounds. The elements surrounding the trees are referred to as 'targets'. These 'targets' may be structural and therefore stationary, such as buildings, or mobile, such as cars or pedestrians. 'Tree Risk' evaluation is a method of determining which subject trees are likely to fail and damage these potential 'targets'. The final risk rating evaluation matrix determines the consequences of failure.

TRAQ refers to the likelihood of sudden limb and/or whole stem failure. This is from a ground based inspection only. Where a tree may appear to have a possible defect at height following a ground based inspection then the inspector will request an aerial inspection. This is usually from an aerial platform if the area is accessible. If not then a climbing tree surgeon/arborist is hired to carry out the inspection under the guidance of Mr Epps. Trees do and can however drop limbs suddenly without warning. This condition is known as 'Sudden branch drop' –

The failure and collapse of live, usually horizontal branches, seemingly without any noticeable cause in calm hot, dry weather conditions generally after rain. Theorised to be caused by altered moisture content in the branch disturbing the longitudinal prestressing of the wood that normally helps support the load as formed by reaction wood in branches tending to horizontal (Lonsdale 1999, p. 30), or incipient failure from the lengthening of existing internal cracks as the wood cools (Shigo 1986, p. 248), or influenced by branch creep under its own weight and by wind (Mattheck & Breloer 1994, p. 126), or fractures to vascular rays if pulled at right angles to their longitudinal orientation forming from subsidence cracks (Mattheck & Breloer 1994, p. 169), or a combination of these factors. Such branch breakages usually occur at some distance from the branch collar leaving a stub. - Dictionary for Managing Trees in Urban Environments – Draper & Richards – 2009 – p. 149.

The subject trees is rated as having a Low risk.

RECOMMENDATIONS

- No tree works are recommended at the present time
- Reinspect regularly in accordance with the City of Melville's routine street tree inspection program
- May require maintenance pruning in the future such as property line clearance

CONCLUSIONS

Trees from the genus *Erythrina* are well known in the arboricultural industry as naturally producing branches with 'compression forks with 'included bark'.*

The subject tree does not have any major compression forks of concern. The regrowth since pollarding took place has produced a smaller branch network than the norm. In addition a more upright habit has been formed that has less chance of failure than from more overlong heavy branches on 'weak unions'; that are normally seen in Coral trees.

The tree is a good specimen of its type. It appears to be structurally sound and healthy and has a 'Risk Rating Status' of LOW.

The subject tree has an expected useful life expectancy of between 15-40 years

** Compression fork – A fork formed where two stems with an acute branch crotch grow pressing against each other with 'included bark' which becomes enclosed bark where the stems flatten at their interface under increasing compression from each successive growth increment, forming a weak graft as a welded fork which remains susceptible to tensile stress (Mattheck & Breloer 1994, p 60) - Dictionary for Managing Trees in Urban Environments – Draper & Richards – 2009 – p 31*



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DISCLAIMER STATEMENT

Jonathan Epps is an independent arboricultural consultant. He is professionally qualified and a founding member of the Institute of Australian Consulting Arboriculturists. Tree examinations, for various outcomes, including structural defects and health analysis are a large part of his practice. General advice is given for all urban trees. These examinations (Visual Tree Assessments - VTA) are carried out from ground level. Great care is undertaken during tree examinations but it is impossible to detect every condition which could possibly lead to be structural failure of a tree. Trees may fail for an unspecified reason that is not fully understood by the profession. The problem(s) may be underground or hidden inside the tree. For this reason, VTA's are not guaranteed under all circumstances or for a specified period of time. In addition, recommended treatment cannot be guaranteed including those treatments carried out which are not recommended by Mr Epps.

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