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6 July 2022

St Mary's Anglican Church 430 Queensberry Street North Melbourne VIC 3051

Dear ____,

Re: Fig tree within the church grounds

It was a pleasure to meet you to discuss the fig tree dominating the church yard and the potential improvements to the landscape.

The tree has been identified as a *Ficus macrophylla* (Moreton Bay Fig) with a height of 20m and canopy spread of 27m. I measured the combined trunk DBH (Diameter at Breast Height or 1.4m from ground level) to be 157cm and the diameter of the trunk base to be 214cm.

Overall, the tree's health and structure are good with a lush canopy and typical form.

Surfacing roots, a common feature of this rainforest species, were observed to be radiating away from the tree in all directions with increased activity to the northwest where the land slopes away to the building, possibly due to the directional runoff of rainfall.

The TPZ (Tree Protection Zone) for the tree is set at a radius of 15m from the centre of the tree's trunk. This zone is a guide to the area above and below ground designated for the tree's viability and stability. The guidelines for this zone, set out in the Australian Standard *AS4970 Protection of trees on development sites*, note encroaching into this zone by more than 10% may begin to affect the long-term health of the tree.

The tree doesn't appear on the City of Melbourne Exceptional Tree Register but there may be additional controls that could require a permit for works to be performed within the TPZ. I've emailed Melbourne Council for further information and will forward it on once my query has been answered.

I understand from our discussion you were interested in leveling out the grassy area to the north of the tree and installing a gravel path with bluestone edging similar to the existing landscaped area to the west of the tree.

Using the TPZ as a guide I can suggest the area north of the tree's canopy drip line would be safe to level out without significantly impacting the tree. Leveling out the area underneath the canopy is likely to require

adding more than 100mm of fill in areas as well as compaction of the soil. This can lead to reduced oxygen levels in the soil and affect the health of roots making it difficult to support from an arboricultural perspective.

Where the slope of the land dips down to the west the significant number of roots make alterations to this area difficult without affecting the tree. I would recommend against the severing of major roots (>40mm dia.) in this area.

Any development in this area is recommended to use root-sensitive construction methods which can be located to avoid damaging major roots. Methods such as screw-piles or above-ground pier-and-beams among others can be used to anchor retaining walls for example while requiring minimal invasive digging.

A second option may be to install decking to level out the area which can be constructed above natural ground level using the above-mentioned methods.

Also, it is important to note that as the tree continues to grow the roots will continue to thicken and may affect any development in immediate proximity, potentially cracking or warping hard surfaces such as pavers and bricks.

Gravel or similar porous material can be safely laid in the area between the slope and church walls for a path without significantly affecting tree health.

A Non-Destructive Root Investigation can be performed where needed to locate roots and enable a more informed design response.

John Patrick informs me that he suggested you speak with Graham Bradke about undertaking landscape works on your site. He is a highly reputable Landscape Contractor with whom John has worked on many occasions and we believe he would be perfect for your project. I am unsure whether John gave you his contact details, but if you wish to organise him to visit your site to discuss your project, it might be worthwhile my attending at the same time to ensure that he fully understands the constraints and opportunities of the project. Should you wish to view his work he has recently completed a project for us close to Edinburgh Gardens

I hope this information will aid to find a balance between your desired improvements to the landscape and the protection and ongoing vitality of the tree.

Yours Sincerely

Fir Hari

Consulting Arborist