

PLANNING PANELS VICTORIA

Greater Geelong Planning Scheme Amendment C354

STATEMENT OF EVIDENCE
ON ARBORICULTURAL ISSUES

COMMISSIONED BY

Mr B Gravell

in relation to

**9 Bridge Street,
Barwon Heads**

ROB GALBRAITH – GALBRAITH & ASSOCIATES



Tree Consultants & Contractors
Tel (03) 9888 5214

20/Feb/17

re: 9 Bridge Street, Barwon Heads

Introduction

A three storey mixed use multiple apartment building with two levels of basement is proposed for the above site. This will entail the removal of a large over mature Golden Cypress within the front setback of the site. The cypress has recently been Heritage listed. Galbraith and Associates has been requested by King Lawyers to visit the site, assess the tree and comment on the health safety and lifespan of the Cypress tree. I am informed the applicant has a young family and is concerned about the structural instability of the tree as it has suddenly shed large branches in the past without notice.

I initially assessed the tree on the 15/October 2016. I undertook a follow up assessment in early January of 2017.

The Tree

The tree measures approximately 10m in height with a spread of 13m in a westerly direction from the trunk centre, an 8m spread to the east, a 9m spread to the south and an 8m spread to the north. The trunk diameter at 1.4m above ground is approximately 115cm.

The tree is of moderate health but poor structurally as is evident from a prolific limb shed history. In fact since my initial inspection in mid October, it was apparent from the early January visit that a further large branch has fractured and is resting on branches below, putting these branches at risk of collapse.

Branch Shed

The shedding as seen is typical of over mature cypresses of this type and age. The branches grow beyond their safe physical support limits. Their thickness, taper and strength are inadequate to safely support themselves, given the loads on the branches, the load distributions (weights are congregated at the ends by the foliage), the lengths and the horizontal attitudes of many of them. They are particularly prone to failure in inclement conditions of rain and wind. The opening up of the canopy from failed branches to winds from which the branches were previously more insulated, exacerbates the problem, as does the propensity for branches to entangle with one another and the heightened risk this causes when one fails.

Alleviating Treatments

The risk of branch failure can be reduced over the short term by weight reduction pruning. Unlike most trees, this species does not have the ability to coppice from old wood, hence a

substantial amount of foliage has to be left on the branch after pruning to avoid starvation and resulting susceptibility to pathogens such as fungal cankers. Furthermore, in an over mature tree such as this, the foliage is predominantly distributed at the ends of the branches, because this is where there is sufficient light available, adequately clear from the shading branches above. Where branches do not receive sufficient light, the foliage cannot produce the necessary food to keep the living tissue within the branch alive, along with that of the associated trunk and root tissue. In such cases the whole branch dies, putting extra loads on the remaining branches.

In the majority of the larger branches, substantial weight reduction pruning cannot occur without removing too much foliage and causing starvation. It is a delicate balancing act between achieving adequate weight reduction to be confident branches do not fail during inclement weather, whilst leaving sufficient foliage to maintain the long term health of the branches and tree. Over mature trees such as this do not cope with heavy pruning as do younger trees. The only way this tree could be maintained relatively safely is over the short term only. The long low heavy branches with inadequate thickness and taper relative to their loads would have to be completely removed as one cannot remove sufficient weight from the ends of these branches without killing them by starvation (see photos). The upper branches can be pruned back to a certain extent, however the tree would try to respond by keeping its root/shoot ratio intact, re-generating as much foliage as possible at the ends of the remaining branches. Effective pruning would have to be undertaken both by climbing to remove the internal dead wood and using cherry picker access, given the broad nature of the tree and the necessity to undertake the delicate pruning works necessary at the branch ends of the entire tree. This is disruptive, expensive and if undertaken responsibly, would have to be undertaken every 3 years. Furthermore the aesthetic outcome would be poor as the tree would take on a toadstool like appearance. Finally, the necessary pruning would lead to starvation of some of the dependant living trunk tissues, such as the sapwood and inner bark, as well as the sapwood and bark of roots, along with inability to re-generate ephemeral fine absorbing roots.

Safe Useful Life Expectancy

Safe useful life expectancy can be regarded as the estimate of time that the tree will continue to provide useful amenity without imposing an onerous financial burden in order to maintain safety, and avoid excessive nuisance. This is to be distinguished from the lifespan of a tree. I would suggest the safe useful life expectancy is virtually zero now. Although the tree can arguably be made safe for the short term after expensive pruning, the resultant amenity outcome is hardly worth it. The actual life span may be considerably longer, perhaps another 15-20 years, however during that time the tree can be expected to continue to suffer major branch collapse until the whole tree starves and dies.

Conclusion

The tree is over mature, hazardous and has a very short safe useful life expectancy.

Declaration:

I hereby declare that I have made all the enquiries that I believe are desirable and appropriate, and no matters of significance which I regard as relevant have to my knowledge been withheld from the respected Tribunal.

GALBRAITH & ASSOCIATES

Rob Galbraith



View of the tree from Bridge Street in early January 2017. The arrowed branch with the yellow foliage has recently fractured.





Views of the tree looking from east to west



View of the tree looking south in October 2016 with the recently fracture branch arrowed in white. Other high risk boughs are arrowed in black.



View up into the canopy showing the lack of internal foliage, except near the top of the tree. There is no facility to be able to prune back the long heavy branches to make them safe without removing all or most of the foliage clumped at the ends, thereby starving them.



Pruning has been undertaken where arrowed within the last few years. The pruning would either have been in response to cleaning up after a branch had fractured or to take weight off long heavy branches.



Close up of the first photos. Note that the branches have died as a result of the loss of too much foliage.



The white arrow points to a fractured drooping branch. The blue arrow points to a larger drooping branch at high risk of failure. The two black arrows point to large branch removal wounds on the trunk where presumably broken branches have been removed.



Two snapped hanging branches



1. Name and Professional Address of Expert

Robert Cameron Galbraith
Arboriculturist
40 Glyndon Road
Camberwell Vic 3124
Tel: 9888 5214 Fax: 9888 5063

2. Qualifications and Experience

1977 Attained Degree in Forest Science from Melbourne University

1978-81 Forest inventory work and road locating in Gippsland, Tasmania and Northern Territory

1982 Foreman of a contract re-vegetation crew at various MMBW parks

1982-83 Attained the National Certificate of Horticulture in Arboriculture at Merrist Wood College, England, with Distinctions

1983-85 Foreman of a large Melbourne tree surgery company

1986-88 Tree surgery sub-contractor

1988-90 Manager of the Arboricultural Services Division of Rivett Enterprises.
Arboricultural Consultant for Rivett Enterprises.

1991- Principal, Galbraith & Associates - Arboricultural Consultants and Contractors.

Consultants to Royal Botanic Gardens Sydney, Major Projects Victoria, St Kilda Botanic Gardens, Melbourne Parks & Waterways, Vic Urban, Office of Housing Department of Human Services, legal firms, insurance companies, developers, town planning consultants, architects, landscape architects, local government (Cities of Albury, Bayside, Boroondara, Manningham, Moreland, Stonnington, Whitehorse). Contracting in arboricultural services for private, government and commercial clients.

VOLUNTARY ARBORICULTURAL INDUSTRY WORKS

Arboricultural Association of Australia (President, 1994, 95, 96)
Major contributor to the Australian Standard AS4373-1996 Pruning of Amenity Trees.

3. Area of Expertise

My area of expertise is in amenity tree management.

4. Expertise to Prepare this Report

My expertise is based on substantial experience in forestry and arboriculture, with many years directly working with thousands of different trees in differing situations. The tasks of climbing, dismantling, pruning and excavating near trees, particularly in Melbourne, is or has been, virtually a daily routine over many years. I keep well abreast of important and relevant research in arboriculture, reading widely and conferring regularly with colleagues in the arboricultural field.

5. Instructions Received in Relation to this Matter

I have received instructions from King Lawyers Pty. Ltd. The instructions have been to visit the site, assess the tree and comment on the health safety and lifespan.

6. Facts/Matters/Assumptions/Reference Documents used to prepare this Report

Nil

7. Other Persons Relied Upon

Nil

8. Relationship with Permit Applicant

I have no relationship with the permit applicant other than a financial agreement to prepare this evidence statement