



11 December 2009

Newcastle City Council
282 King Street
Newcastle NSW 2300

Att: Phil Hewett

Re: Laman Street Figs, Civic Precinct - Peer Review

1. Introduction

Arboreport has been engaged by Newcastle City Council to provide a peer review of a report titled Assessment of Hill's Weeping Figs *Ficus Macrocarpa* var. *hilli*, In Civic Cultural Precinct, Laman Street Cooks Hill, Newcastle (the Report) as prepared by The Sugar Factory on the 7th August 2009. *The Report* provides an assessment of 14 trees (*the Subject Trees*).

As part of my review of the report I visited Laman Street, Cooks Hill (*the Site*) on the 04/12/09 and inspected the Subject Trees. As part of my review process I have also reviewed the following documents made available by Newcastle City Council to provide background to the history and the issues associated with *the Site* and *the Subject Trees*:

1. Investigation into Stability of three Hills Weeping Figs Along Laman Street, Newcastle as prepared by The Sugar Factory (11 July 2007).
2. Investigation into Root plate Architecture of Hills Weeping Figs along Laman Street outside Newcastle Region Art Gallery as prepared by The Sugar Factory (December 2006).
3. Newcastle City Council tree management database extracts;
4. Various photographs relating to past failures and/or other works undertaken adjacent to *the Subject Trees*;
5. Dial Before You Dig information for Laman Street.

2. Summary

A recent storm event (July 2007) caused several trees (now removed) to fail within *the Site*. The failed trees were investigated and it was determined that the failure had occurred at the root plate. Subsequently root investigations have been undertaken to ascertain the extent of the remaining trees' root plates within the roadway.

The failed trees' root plates were investigated to determine the extent of roots. Also other Hills Weeping Figs which have failed in the locality have been investigated. These investigations have the lack or absence of root structural roots within the Laman Street roadway,

The Report identifies that the current condition of the trees root plates is largely due to poor planning when the initial planting was undertaken and subsequent poor tree management. Poor tree management includes disturbance of the root zone through the installation and maintenance of infrastructure and general root damage.

3. Review

The Report generally makes detailed observations, discusses the observations in relation to tree management issues and then makes recommendations based on accepted and widely used arboricultural methodologies including (but not limited to) the following:

1. VTA – Visual Tree Assessment, *Mattheck and Breloer* 1994;
2. SULE – Safe Useful Life Expectancy, Barrell 2001;
3. Methodology for determining the Minimum Root Plate Radius, *Mattheck and Bethge* 2000;

However *the Report* also identifies that arboricultural texts recommend the analysis of casebook history as part of the hazard assessment process. In this circumstance the analysis of the mechanics behind recent failures, other root mapping investigations and a recent aggregation of the incidence of failures when previously no failures have occurred, formed part of the hazard assessment provided.

The Report identifies that currently accepted methodologies for the management of urban trees, differs greatly from older methodologies that have historically been used to manage *the Subject Trees* (ie. root pruning, compaction of growing media and filling over root plate). Resultantly *the Subject Trees* are postulated to have linear root plates which are in effect defective.

Generally I am in concurrence with the reported results as presented by The Sugar Factory with the following exception; The first sentence of the third paragraph of section 7.4 Root Plate Architecture "*The trees on the southern side of the street have few if any tensile roots to provide full anchorage against southerly winds,*" appears to be unfounded and provides no basis for the statement.

I concur with the provided discussion of SULE ratings.

I agree with the discussion of risk management option of remedial pruning and concur with the position that it is unjustifiable due to loss of amenity.

I agree with the discussion of bracing and cabling as methods of risk management as they are unsuitable for these trees and the locality.

I agree with the discussion of exclusion of targets from the target area both in day to day and high wind conditions is unfeasible to manage.

4. Conclusion

In my opinion *The Report* demonstrates clearly, through the use of established arboricultural conventions and also through analysis of casebook history, that *the Subject Trees* should be removed in order to minimise the risk of failure.

The Report adequately discussed both removal and retention options and other relevant issues pertaining to the site.

The recommendations provided that support the removal and replacement of all trees as a group, in my opinion are also supported.

If you have any other queries please do not hesitate to contact me directly.

Regards,



Adrian Swain

Director

President of the Australian Institute of Landscape Designers and Managers

Member of the Australian Institute of Horticulture

Member of the International Society of Arboriculture Australian Chapter

Member of the Institute of Australian Consulting Arboriculturists

Member of the National Arborists Association of Australia