ARBORICULTURAL IMPACT ASSESSMENT

7 ANTHONY STREET
WEST RYDE NSW

Prepared for
Builtform Constructions Pty Ltd
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Prepared by
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March 2011

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1.0 SUMMARY

1.1 This inspection was requested by Nilesh Kumar of Builtform Constructions in relation to two mature Sydney Blue Gum trees within a Council controlled carpark adjacent to the construction site. There are concerns that recently observed dying back of foliage in one of the trees could have been caused by building work nearby. There has also been development of the carpark itself nearby several weeks prior to this inspection. The subject trees are quite significant, being remnants of Blue Gum/Turpentine forest. An initial inspection was carried out on 23-03-11 to assess the general condition of trees, with a follow-up inspection undertaken on 29-03-11 with a climbing Arborist engaged to carry out close examination of wound areas high in both trees.

1.2 In my opinion, both trees have received varying degrees of stress due to a variety of factors, not generally related to recent construction activity. The southern-most tree has signs of older Termite damage, with this factor causing a degree of energy loss. There has also been a negative impact on soil moisture levels around this tree due to well intentioned actions by Builtform with additions of soil and new turf around both trees. The addition of the turf around the northern-most tree, plus energy drain due to an older pre-existing significant wound on the main trunk has caused some notable problems with this tree. I recommend that immediate deadwood pruning be undertaken on both trees, as this dead material presents a hazard to users of the carpark. I also recommend that the new turf material and added soil be removed, with the surface then mulched. Regular irrigation on both trees to attain appropriate soil moisture levels is needed, as well as remedial soil treatments as specified in this report.

2.0 SITE OBSERVATIONS

2.1 I made the initial inspection of the site on Wednesday 23 March 2011. The site faces south to Anthony Street and Betts Street. The two Subject trees are located within Council controlled property which has recently been developed as a carpark. Observations by Council staff and Builtform personnel brought to attention the stressed appearance in the southern-most tree, closest to the Anthony street frontage. I was as a consequence asked to assess both trees.

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2.2 Tree 1 is a Sydney Blue Gum (*Eucalyptus saligna)*, located 9 metres in from the front alignment of the property and about 4 metres east from the bitumen driveway servicing the carpark. It stands approximately 25 metres in height and has a canopy spread of 9 metres north, 10 metres south, 9 metres east and 8 metres west. The trunk Diameter at Breast height (DBH) is around 600mm north/south and 550mm east/west.

2.3 The basal flare and trunk taper are normal for this species. This tree shows no signs of disease or nutrient deficiencies. The basic framework of the tree is relatively normal but somewhat leggy and the canopy is 'browning off' (showing desiccation) in its top third. I observed a major wound area on the south side of the main trunk at around 4.5 metres height. This wound was callusing well. A large branch had been pruned off on the west side of the trunk at around 4.5 metres height. The lowest branches occur at around 4 metres height. I observed significant deadwood in the outer sections of the canopy. The majority of the upper canopy to the south and south-west appeared distressed.

2.4 Tree 2 is also a Sydney Blue Gum, located about 16 metres in from the front boundary. This tree is approximately 26 metres in height and has a canopy spread of 10 metres north, 8 metres south, 10 metres east and 11 metres west. Trunk DBH is 500mm. The trunk takes on a twin-limbed form at 5 metres height. This tree is particularly leggy in its form. I observed an older wound and cavity on the southern side of the trunk at 4 metres height. The rest of the tree is in relatively good form but does have a degree of deadwood in the outer canopy areas.

2.5 I carried out a second inspection of these trees on 29-03-11, in company with a climbing Arborist from Axact Tree Services. This Arborist indicated that there were signs of old Termite damage in Tree 1 within the wound area described earlier. Heartwood in this area was found to be relatively sound, with no signs of rot. The climber also discovered an old tear wound at the 8 metre height on the west side of the trunk.

2.6 The inspection then moved on to Tree 2. This revealed that the slit type wound area at the 5 metre height was 280mm. wide, with the internal cavity area extending 600mm+ downwards past the opening, with some soft timber material at the bottom of the cavity. The cavity was 250mm wide internally. The trunk of this tree flares into two co-dominant trunks at the 7 metre height. The western-most trunk then branches out into

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three. The western branch has a moderate size wound near its juncture point, around 250mm deep.

2.7 At this time I undertook examination and testing of the soil around the trees. This examination revealed pH readings generally of 6.5 to 7. The examination also revealed that soil around Tree 1 was particularly dry, to a point where it would cause stress to the tree. Moisture levels around Tree 2 were reasonable to slightly dry, varying at different spots.

3.0 DISCUSSIONS AND CONCLUSIONS

3.1 It appears from close quarter inspection that the wound and cavity on Tree 1 with associated old Termite activity has had little effect on the structural integrity of the tree, but as a negative, is presenting an energy drain on this tree. Also, the fill soil and turf laid around the trees, although well-intentioned, has had the effect of screening the root plates of the trees from any light rain, plus to a degree reducing air flow to roots, which is essential for their normal functioning. The deadwood in both trees also acts as an energy drain on the trees.

3.2 Several wound areas on tree 1 and Tree 2 are presenting an energy drain to these trees. In my view, these wound sites will require close quarter remedial attention by climbing Arborists under direction by Accord Tree Consultants. The remedial care will require basic clean-up of wound areas, plus stimulation of the callus growth edge. This work should be carried out as soon as possible, and could be undertaken in concert with proposed deadwood pruning. Mulching of the general root-zone area underneath the canopy spread is also required to affect the best chance of recovery and appropriate management of these trees.

3.3 Further remedial care of the subject trees is recommended via regular irrigation using 'rose' type sprinkler fittings or similar. Soil moisture levels should be checked by appropriately qualified Horticulturists or Arborists, not building personnel. The general root-zone area should be cordoned off from pedestrian traffic via use of exclusion zone fencing, similar to that used already for the main site works area. Treatment of the root-zone is to be undertaken by Horticulturists or Arborists with use of 'wettasoil' plus a proprietary root hormone, with 'Seasol' added at a second treatment. The soil pH should also be adjusted to more appropriate levels; readings of around 4.5 to 6 are reasonable.

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3.4 I also recommend that a follow-up inspection of the trees is undertaken by Accord Tree Consultants at around 8 weeks after the remedial care described previously. This inspection should be used to gauge the need for corrective pruning. The spacing noted will be needed to give the trees time to show recovery growth, particularly in the upper canopy in Tree 1.

4.0 RECOMMENDATIONS

4.1 I recommend that immediate deadwooding of both subject trees is undertaken by Level 3 qualified Arborists.

4.2 I also recommend that the remedial care and follow-up inspection as specified in section 3 of this report are undertaken by Builtform Constructions.

4.3 I further recommend that this report be presented to Ryde City Council to assist with required response to concerns regarding care of the subject trees.

5.0 ASSUMPTIONS AND LIMITING CONDITIONS

a) Any legal description provided to the consultant is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised as though free and clear, under responsible ownership and competent management.

b) It is assumed that any property is not in violation of any applicable codes, statutes, or any other Local, State or Federal Government regulations.

c) Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information supplied by others.

d) The consultant shall not be required to give testimony or to attend meetings or court by reason of this report unless subsequent contractual arrangements are made including payment of an additional fee for such services.

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e) Loss or alteration of any part of this report invalidates the entire report.

f) Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written consent of the consultant.

g) An important statement is made at this point that all standing trees are inherently dangerous and require ongoing maintenance for their life span. Regular checks by qualified Arborists should be carried out on all trees to reduce risks.

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