



# SYDNEY ARBOR TREES

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5/5/2020

**RE: Tree inspection- 1 x *Celtis sinensis*- Chinese Hackberry.**

This letter has been provided to discuss the recently completed inspection of a semi-mature *Celtis sinensis*- Chinese Hackberry, located within the rear of 27-29 George Street, on the Southern boundary of the subject site.

Our brief was to inspect the tree and provide details regarding the tree protection zone (TPZ) and structural root zone (SRZ) and also quantify the level of impact that would likely result from pruning the tree back to the property boundary to enable construction of a new building.

## *Site details:*



Figure 1: The subject tree (circled Red), located on the Southern boundary of the property. Image from Google Maps 2020.

### Observations:

The subject tree was positively identified as a *Celtis sinensis*- Chinese Hackberry, which is a common self-sewn weed species throughout the greater Sydney region. The tree is semi-mature and has the potential to grow to at least double its current dimensions, making it inappropriate for long-term retention in its location directly adjacent to the boundary fence.



**Figure 2: The subject tree**

The tree currently provides some level of amenity through screening between the properties, however, the tree is deciduous, so this screening is probably far more beneficial through the summer months. The tree was displaying fair health and vigour with evidence of sap sucking insect infestation and sooty mould on some of the lower foliage. The tree had poor structure with multiple co-dominant stems originating from ground level. The tree was approximately eight (8) metres in height, with a canopy spread of approximately ten (10) metres North-South and ten (10) metres East-West.

The tree was on the neighbouring property so the trunk dimensions have been estimated. The tree had a diameter at breast height (DBH) of approximately 410mm once all stems had been collectively calculated in accordance with AS4970-2009- The Protection of Trees on Development Sites. This results in a notional TPZ of 4.9m radius measured from the centre of the tree. The tree had a Diameter above buttress (DAB) of approximately 480mm, resulting in a structural root zone (SRZ) of 2.4m measured from the centre of the tree. The centre of the tree is approximately 500mm beyond the property boundary so the

structural root zone of the tree would be approximately 1.9m from the boundary fence. AS4970-2009- The Protection of Trees on Development Sites, allows for an encroachment of up to 10% of the TPZ without the need for further investigation. The 10% encroachment is reached at 2.9m from the boundary fence. If the structure is to be located closer than 2.9m from the fence, non-destructive excavation will be required to determine the level of impacts which would be likely.

Given the species tolerance and likely soil type, the proposed structure may be able to be built approximately 2 metres from the boundary without imposing significant impacts upon tree health as *Celtis sinensis* are known to be very tolerant of pruning and root disturbance, however, this would require confirmation with non-destructive means.

I have not been fully briefed on the requirements for the proposed structure, however there will likely be the need for scaffold to be installed to complete exterior works, for this to be possible, the intent is to prune most of the branches overhanging the fence line. This is unlikely to impose significant impact upon the tree, however, it may result in an unappealing appearance. To counter this it appears possible that the majority of the lower branches could be pruned whilst some of the upper branches could be tied back until the construction has been completed and the scaffold is removed.

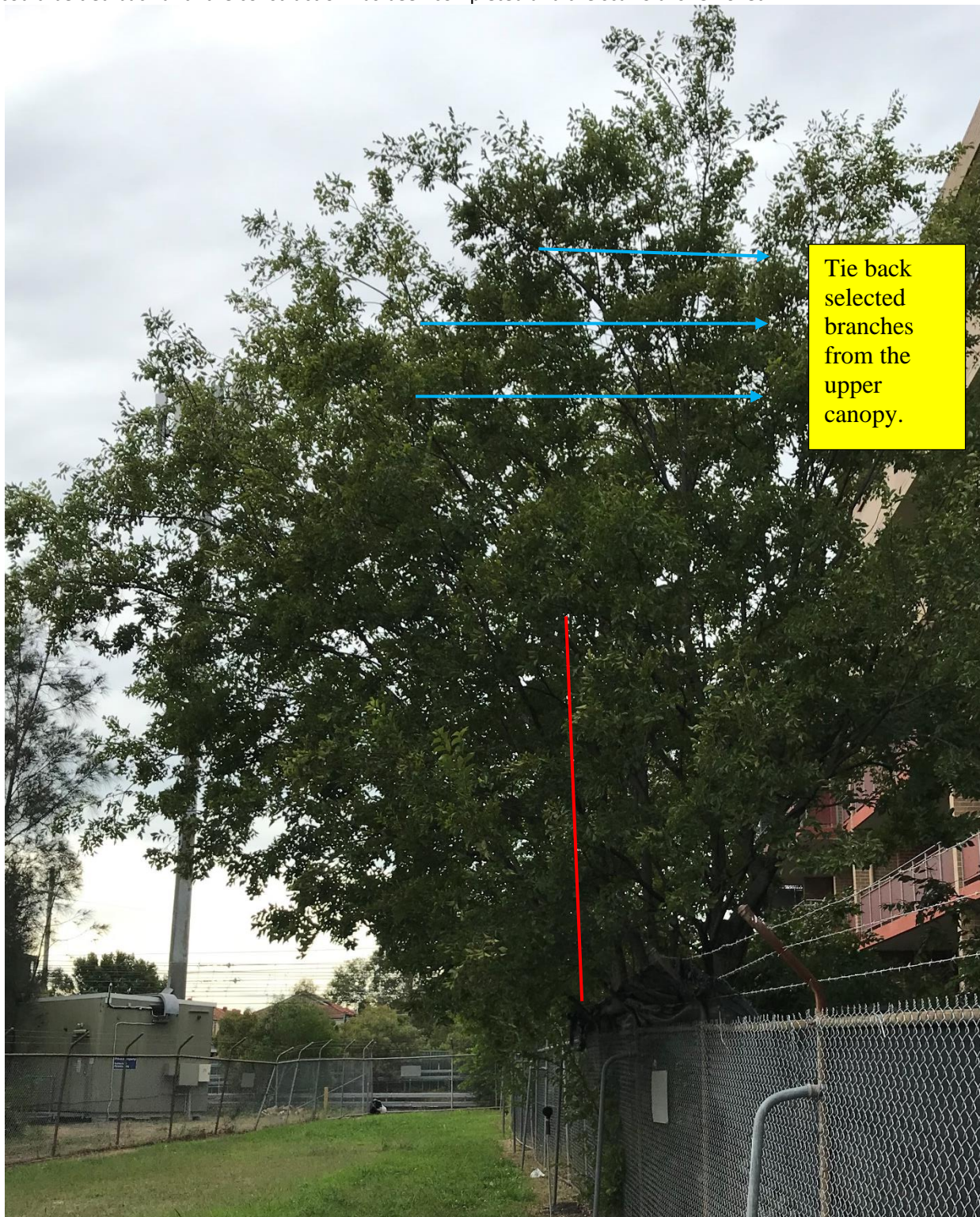


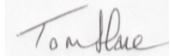
Figure 3: The red line represents branches which will require pruning. The blue arrows represent branches which may need to be tied back to enable the scaffold to be installed.

## *Conclusion :*

- The subject tree is a self-sewn weed species which is located directly adjacent to the boundary fence.
- The tree is providing some level of amenity through screening between the properties so retention is desired.
- This species is known to be tolerant of pruning and root disturbance.
- The tree canopy can be successfully pruned, with the upper branches tied back to reduce the visual impact of the pruning.
- All pruning and tying back of branches must be completed by an AQF level 3 practicing Arborist and overseen by an AQF level 5 Consulting Arborist.
- The centre of the tree is approximately 500mm behind the property boundary.
- The TPZ for the tree is 4.9m (4.4m within the property).
- The SRZ is 2.4m which is 1.9m within the property.
- The allowable encroachment of 10% within the TPZ is reached at 2.9m from the boundary fence.
- If the structure is within 2.9m of the fence, non-destructive excavation will be required to assess the potential root damage which may occur through development.
- An AQF Level 5 Arborist will be required to oversee the excavation and specify mitigation measures to reduce potential impacts upon the tree.
- Given the species and likely soil type, it seems likely that the structure could be located 2m from the boundary fence without imposing significant impacts upon the tree, however, this will need to be confirmed through further investigation.

Please contact me directly if you have any questions regarding this letter.

Kind regards



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