

Birds Tree Consultancy

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ARBORICULTURAL IMPACT ASSESSMENT & PRUNING SPECIFICATION

**Sydney Metro City and SouthWest Line Wide –
Punchbowl NSW – South Terrace Construction
Transport Access.**

27th April 2022

**Prepared for
Systems Connect**

Prepared by

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1.0 Scope of Works

This Arboricultural Impact Assessment and Pruning Specification has been commissioned by Systems Connect to assess the impact of the required construction transport for the Sydney Metro City and SouthWest Line Wide site at Punchbowl NSW, on the trees on South Terrace between Loder Lane and Scott Street and provide a specification for pruning requirements to resolve this potential impact.

On the 22nd of April 2022, Glenn Bird of Birds Tree Consultancy attended site and inspected the subject trees from the ground.

2.0 Site Analysis

2.1 Site

The subject site is Sydney Metro City and SouthWest Line Wide - Punchbowl NSW. The subject trees are located adjacent to South Terrace and between Loder Lane and Scott Street. Construction Transport is required to transport construction units along South Terrace for the Sydney Metro City and SouthWest Line Wide Works. Refer to Figure 1 for Tree locations.

2.2 Identification

The subject trees are as located in Figure 1.



Figure 1 - Tree Locations

3.0 Existing Trees

- 3.1 Tree A** ***Lophostemon confertus***
 This mature tree is approximately 14m tall with a canopy spread of 12m. It has a single trunk with a diameter at breast height (DBH) of 670mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.2 Tree B** ***Lophostemon confertus***
 This mature tree is approximately 10m tall with a canopy spread of 14m. It has a single trunk with a DBH of 560mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.3 Tree C** ***Lophostemon confertus***
 This mature tree is approximately 13m tall with a canopy spread of 14m. It has a single trunk with a DBH of 600mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.4 Tree E** ***Lophostemon confertus***
 This mature tree is approximately 9m tall with a canopy spread of 14m. It has a single trunk with a DBH of 450mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.5 Tree F** ***Lophostemon confertus***
 This mature tree is approximately 8m tall with a canopy spread of 14m. It has a single trunk with a DBH of 450mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.6 Tree G** ***Lophostemon confertus***
 This mature tree is approximately 9m tall with a canopy spread of 14m. It has a single trunk with a DBH of 450mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.7 Tree H** ***Lophostemon confertus***
 This mature tree is approximately 10m tall with a canopy spread of 14m. It has a single trunk with a DBH of 460mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.8 Tree I** ***Lophostemon confertus***
 This mature tree is approximately 7m tall with a canopy spread of 10m. It has a single trunk with a DBH of 420mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.

- 3.9 Tree K *Lophostemon confertus***
This mature tree is approximately 8m tall with a canopy spread of 10m. It has a single trunk with a DBH of 490mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.10 Tree L *Lophostemon confertus***
This mature tree is approximately 8m tall with a canopy spread of 9m. It has a single trunk with a DBH of 420mm. This tree is in good health and condition with minimal deadwood and moderate epicormic growth. This tree has been pruned for line clearance.
- 3.11 Tree 1242 *Eucalyptus microcorys***
This mature tree is approximately 20m tall with a canopy spread of 4m. It has a single trunk with a DBH of 380mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.12 Tree 1244 *Eucalyptus microcorys***
This mature tree is approximately 20m tall with a canopy spread of 8m. It has a single trunk with a DBH of 680mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.13 Tree 1248 *Eucalyptus microcorys***
This mature tree is approximately 18m tall with a canopy spread of 7m. It has a single trunk with a DBH of 660mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.14 Tree 1249 *Eucalyptus microcorys***
This mature tree is approximately 15m tall with a canopy spread of 4m. It has a single trunk with a DBH of 350mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.15 Tree 1251 *Eucalyptus microcorys***
This mature tree is approximately 20m tall with a canopy spread of 8m. It has multiple (3) co-dominant trunks from the base with an aggregate DBH of 505mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.16 Tree 1252 *Eucalyptus microcorys***
This mature tree is approximately 20m tall with a canopy spread of 7m. It has a single trunk with a DBH of 640mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.

- 3.17 Tree 1263 *Eucalyptus microcorys***
This mature tree is approximately 12m tall with a canopy spread of 5m. It has a single trunk with a DBH of 310mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.18 Tree 1265 *Eucalyptus microcorys***
This mature tree is approximately 14m tall with a canopy spread of 5m. It has a single trunk with a DBH of 470mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.19 Tree 1266 *Eucalyptus microcorys***
This mature tree is approximately 17m tall with a canopy spread of 6m. It has a single trunk with a DBH of 560mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.20 Tree 1268 *Eucalyptus microcorys***
This mature tree is approximately 12m tall with a canopy spread of 5m. It has a single trunk with a DBH of 450mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.21 Tree 1272 *Eucalyptus microcorys***
This mature tree is approximately 15m tall with a canopy spread of 4m. It has a single trunk with a DBH of 380mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.
- 3.22 Tree 1273 *Eucalyptus microcorys***
This mature tree is approximately 5m tall with a canopy spread of 2m. It has a single trunk with a DBH of 140mm. This tree is in good health and condition with minimal deadwood and epicormic growth. This tree has been pruned for line clearance.

4.0 Impact Assessment

4.1 Construction Traffic

This Impact Assessment is based on the requirement to transport prefabricated building units along South Terrace between Loder Lane and Scott Street. This construction transport requires clearance with a height of 5.3m and width of 6m. This clearance has been assessed over this section of South Terrace and determined that this required transport will impact the Canopy of Trees A, B, C, E, F, G, H, I, K, L, 1242, 1244, 1248, 1249, 1251, 1252, 1263, 1265, 1266, 1268, 1272, 1277.

Trees A, B, C, E, F, G, H, I, K and L are located on the southern side of South Terrace and these trees have previously been pruned for line clearance leaving these trees with a widely spread and irregular form. This provides limited opportunities for appropriate crown reduction pruning in accordance with *AS4373-2007 Pruning of*

Amenity Trees. In order to minimise crown reduction on these southern trees, the proposed transport path has been pushed to the northern side of South Terrace with the greater crown reduction and crown lifting pruning carried out on the trees on the northern side of South Terrace which have a more suitable form for this pruning.

Trees D, J, 1230, 1239, 1247, 1264 will not be impacted by the proposed construction traffic and these trees have been excluded from this impact assessment and pruning specification.

4.0 Pruning Specification

4.1 Tree A

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

One second order and one third order branch are required to be removed on the northern side of the crown as shown in Figure 2 at Locations A1 and A2 to provide canopy clearance for construction traffic.

Pruning Location A1 is a second order branch with a diameter at the pruning location of approximately 100mm. This branch extends in a northerly direction. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 2.

Pruning Location A2 is a third order branch with a diameter at the pruning location of approximately 100mm. This branch extends in a northerly direction. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 2.

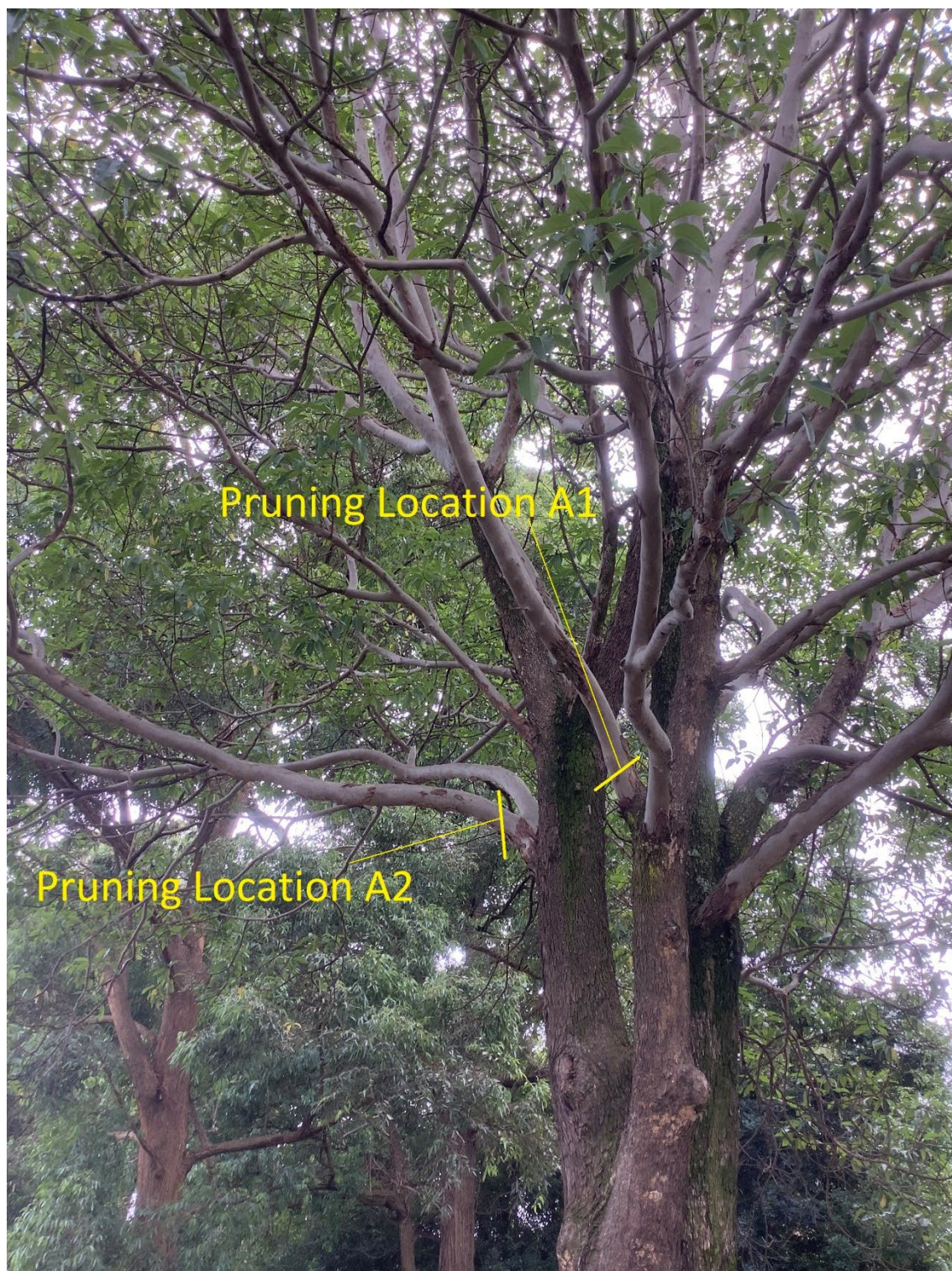


Figure 2 - Pruning Location A

4.2 Tree B

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

Crown reduction pruning is required to remove small third order and higher order branches to the location shown in Figure 3 to provide canopy clearance for construction traffic.

All pruning is to be carried out under the supervision of the Site Arborist (AQF Level 5) by an arborist with qualifications of AQF Level 3 or higher. All pruning is to be in accordance with *AS4373-2007 Pruning of Amenity Trees*.

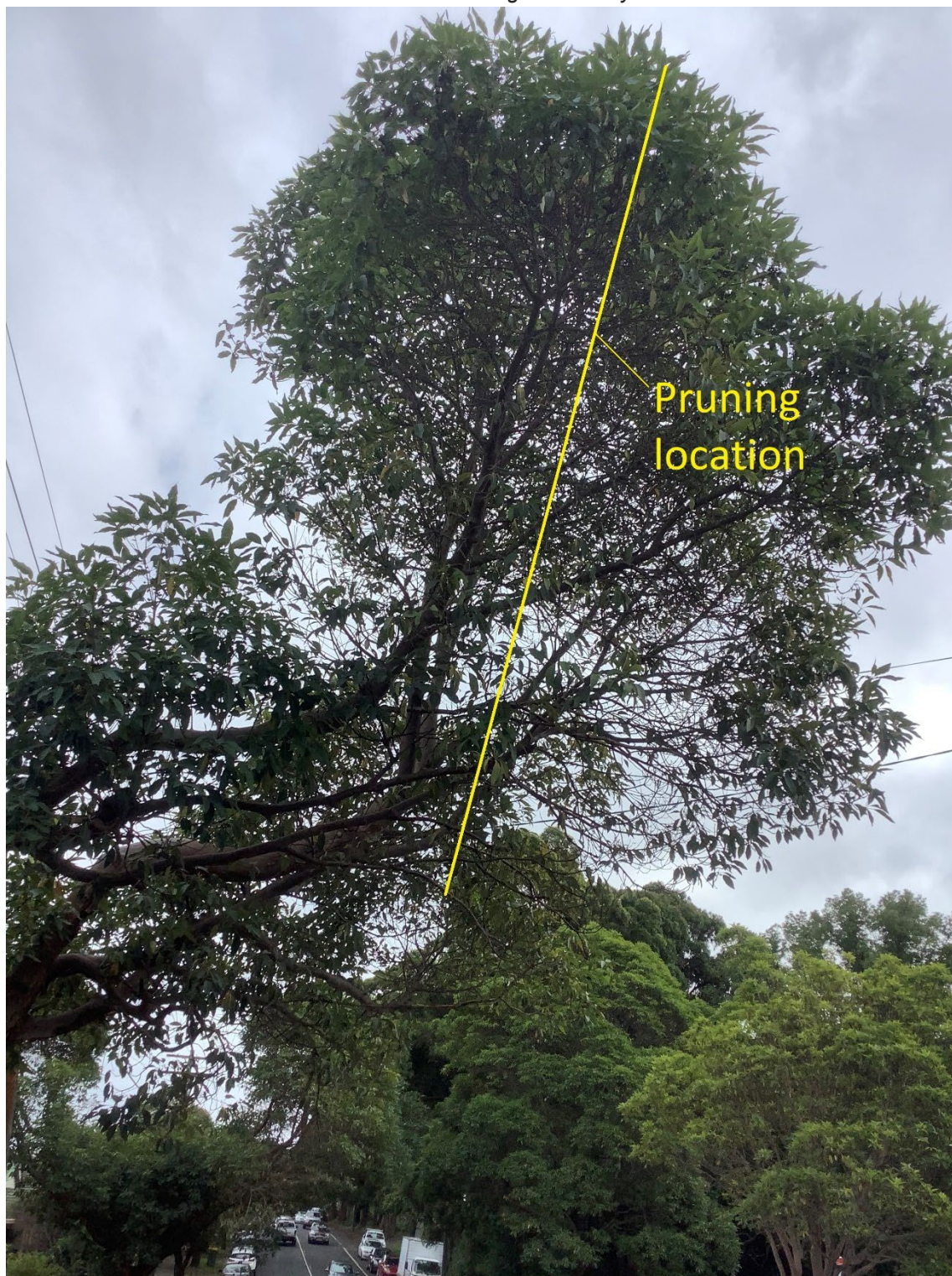


Figure 3 - Tree B pruning locations

4.3 Tree C

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

Four second order branches are required to be removed on the northern side of the crown as shown in Figure 4 at Locations C1, C2, C3 and C4 to provide canopy clearance for construction traffic.

Pruning Location C1 is a second order branch with a diameter at the pruning location of approximately 120mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 4.

Pruning Location C2 is a second order branch with a diameter at the pruning location of approximately 200mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 4.

Pruning Location C3 is a second order branch with a diameter at the pruning location of approximately 250mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 4.

Pruning Location C4 is a second order branch with a diameter at the pruning location of approximately 120mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 4.



Figure 4 - Tree C Pruning Locations

4.4 Tree E

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

Two third order branches are required to be removed on the northern side of the crown as shown in Figure 5 at Locations E1 and E2 to provide canopy clearance for construction traffic.

Pruning Location E1 is a third order branch with a diameter at the pruning location of approximately 50mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 5.

Pruning Location E2 is a third order branch with a diameter at the pruning location of approximately 100mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 5.



Figure 5 - Tree E Pruning Locations

4.5 Tree F

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the northern side of the crown as shown in Figure 6 at Location F1 to provide canopy clearance for construction traffic.

Pruning Location F1 is a second order branch with a diameter at the pruning location of approximately 250mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 6.



Figure 6 - Tree F Pruning Locations

4.6 Tree G

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the northern side of the crown as shown in Figure 7 at Location G1 to provide canopy clearance for construction traffic.

Pruning Location G1 is a second order branch with a diameter at the pruning location of approximately 280mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 7.



Figure 7 - Tree G Pruning Locations

4.7 Tree H

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

Four third order branches are required to be removed on the northern side of the crown as shown in Figure 8 at Locations H1, H2, H3 and H4 to provide canopy clearance for construction traffic.

Pruning Location H1 is a third order branch with a diameter at the pruning location of approximately 100mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 8.

Pruning Location H2 is a third order branch with a diameter at the pruning location of approximately 100mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 8.

Pruning Location H3 is a third order branch with a diameter at the pruning location of approximately 100mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 8.

Pruning Location H4 is a third order branch with a diameter at the pruning location of approximately 50mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 8.



Figure 8 - Tree H Pruning Locations

4.8 Tree I

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

Four third order branches are required to be removed on the northern side of the crown as shown in Figure 9 at Locations I1, I2, I3 and I4 to provide canopy clearance for construction traffic. All branches are less than 100mm in diameter.



Figure 9 - Tree I Pruning Locations

4.9

Tree K

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the northern side of the crown as shown in Figure 10 at Location K1 as shown in figure 11 to provide canopy clearance for construction traffic.

Pruning Location K1 is a second order branch with a diameter at the pruning location of approximately 220mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 11.



Figure 10 - Tree K Branch to be pruned

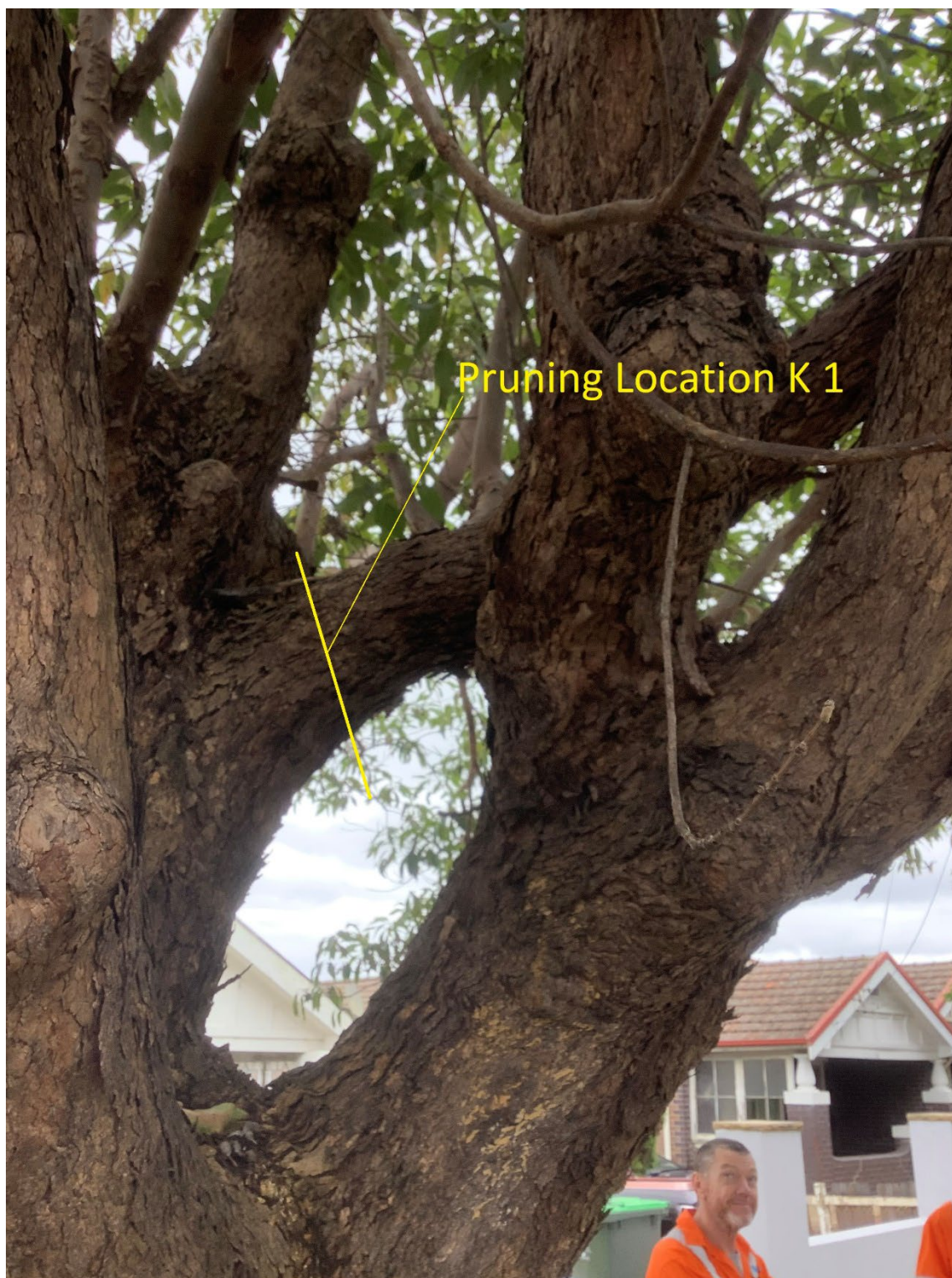


Figure 11 - Tree K Pruning Location

4.10 Tree L

Selective pruning is required to provide canopy clearance for construction transport on the northern side of this tree to the extent defined in Section 3.0.

Two third order branches are required to be removed on the northern side of the crown as shown in Figure 12 at Locations L1 and L2 to provide canopy clearance for construction traffic.

Pruning Location L1 is a third order branch with a diameter at the pruning location of approximately 100mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 12.

Pruning Location L2 is a third order branch with a diameter at the pruning location of approximately 100mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 12.



Figure 12 - Tree L Pruning Locations

4.11 Tree 1242

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the southern side of the crown as shown in Figure 13 at Location 1242A to provide canopy clearance for construction traffic.

Pruning Location 1242A is a second order branch with a diameter at the pruning location of approximately 200mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 13.



Figure 13 - Tree 1242 Pruning Location

4.12 Tree 1244

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the southern side of the crown as shown in Figure 14 at Location 1244A as shown in figure 14 to provide canopy clearance for construction traffic.

Pruning Location 1244A is a second order branch with a diameter at the pruning location of approximately 220mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 14.



Figure 14 - Tree 1244 Pruning Location

4.13 Tree 1248

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

One third order branch is required to be removed on the southern side of the crown as shown in Figure 15 at Location 1248A as shown in figure 15 to provide canopy clearance for construction traffic.

Pruning Location 1248A is a third order branch with a diameter at the pruning location of approximately 200mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 15.



Figure 15 - Tree 1248 Pruning Locations

4.14 Tree 1249

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

One third order branch is required to be removed on the southern side of the crown as shown in Figure 16 at Location 1249A to provide canopy clearance for construction traffic.

Pruning Location 1249A is a third order branch with a diameter at the pruning location of approximately 220mm. This branch is to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 16.



Figure 16 - Tree 1249 Pruning Locations

4.15 Tree 1251

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

Two third order branches are required to be removed on the southern side of the crown as shown in Figure 17 at Location 1251A and 1251B to provide canopy clearance for construction traffic.

Pruning Locations 1251A and 1251B are both third order branches with a diameter at the pruning location of approximately 100mm. These branches to be pruned at the tertiary branch junction at the branch collar at the location shown in figure 17.



Figure 17 - Tree 1251 Pruning Locations

4.16 Tree 1252

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

Two second order branches are required to be removed on the southern side of the crown as shown in Figure 18 at Location 1252A and 1252B to provide canopy clearance for construction traffic.

Pruning Location 1252A is a second order branch with a diameter at the pruning location of approximately 200mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 18.

Pruning Location 1252B is a second order branch with a diameter at the pruning location of approximately 220mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 18.

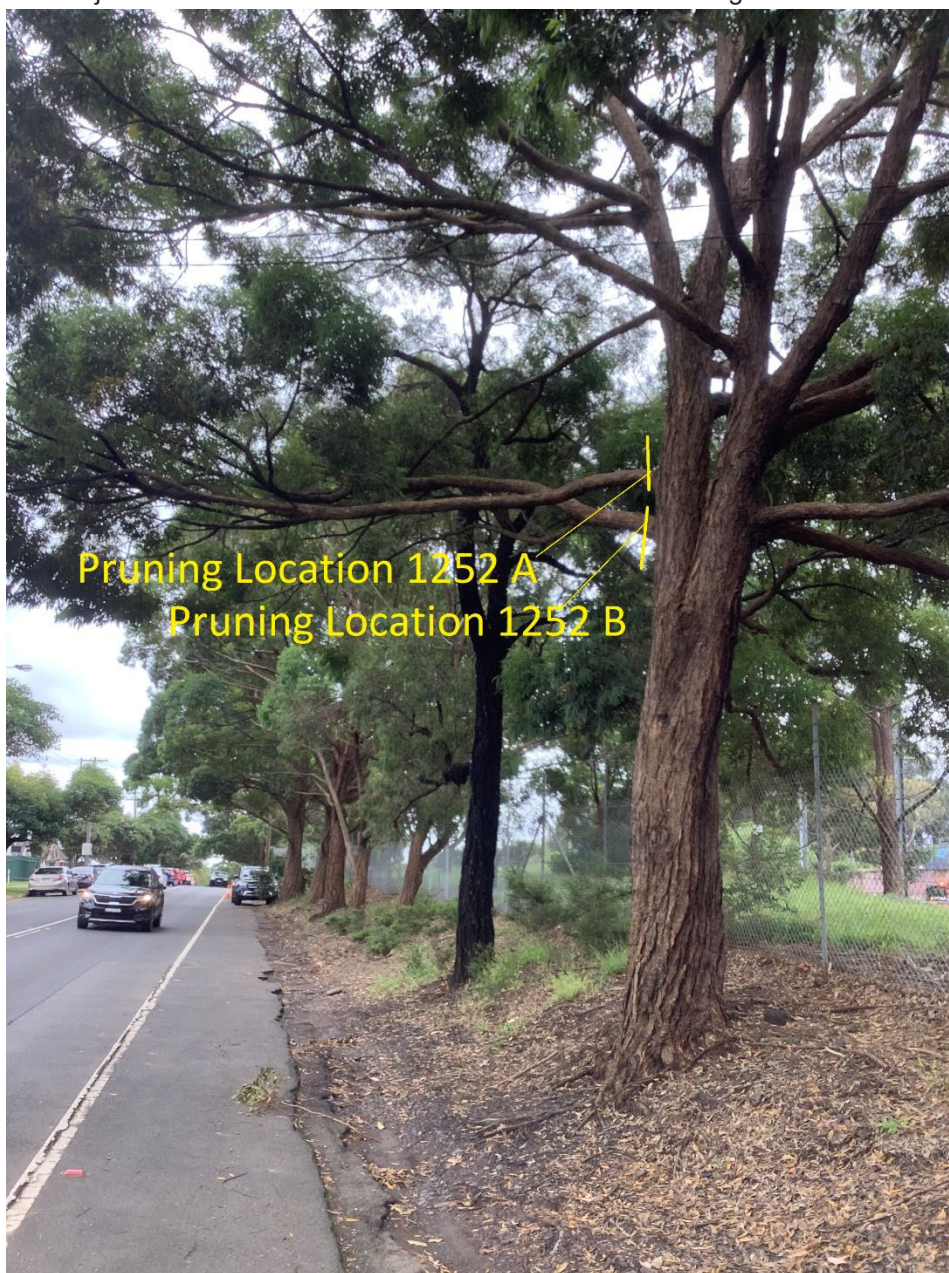


Figure 18 - Tree 1252 Pruning Locations

4.17 Tree 1263

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

Two second order branches are required to be removed on the southern side of the crown as shown in Figure 19 at Locations 1263A and 1263B to provide canopy clearance for construction traffic.

Pruning Location 1263A and 1263B are second order branches with a diameter at the pruning location of approximately 200mm. These branches are to be pruned at the secondary branch junction at the branch collar at the location shown in figure 19.



Figure 19 - Tree 1263 Pruning Locations

4.18 Tree 1265

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the southern side of the crown as shown in Figure 20 at Location 1265A to provide canopy clearance for construction traffic.

Pruning Location 1265A is a second order branch with a diameter at the pruning location of approximately 120mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 20.



Figure 20 - Tree 1265 Pruning Location

4.19 Tree 1266

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

Two second order branches are required to be removed on the southern side of the crown as shown in Figure 21 at Locations 1266A and 1266B to provide canopy clearance for construction traffic.

Pruning Location 1266A is a second order branch with a diameter at the pruning location of approximately 120mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 21.

Pruning Location 1266B is a second order branch with a diameter at the pruning location of approximately 280mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 21.



Figure 21 - Tree 1266 Pruning Location

4.20 Tree 1268

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the southern side of the crown as shown in Figure 22 at Location 1268A to provide canopy clearance for construction traffic.

Pruning Location 1268A is a second order branch with a diameter at the pruning location of approximately 250mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 22.



Figure 22 - Tree 1268 Pruning Locations

4.21 Tree 1272

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

Two third order branches are required to be removed on the southern side of the crown as shown in Figure 23 at Locations 1272A and 1272B to provide canopy clearance for construction traffic.

Pruning Locations 1272A and 1272B are third order branches with a diameter at the pruning location of approximately 100mm. These branches are to be pruned at the tertiary branch junctions at the branch collar at the location shown in figure 23.



Figure 23 - Tree 1272 Pruning Locations

4.22 Tree 1273

Selective pruning is required to provide canopy clearance for construction transport on the southern side of this tree to the extent defined in Section 3.0.

One second order branch is required to be removed on the southern side of the crown as shown in Figure 24 at Location 1273C to provide canopy clearance for construction traffic.

Pruning Location 1273C is a second order branch with a diameter at the pruning location of approximately 120mm. This branch is to be pruned at the secondary branch junction at the branch collar at the location shown in figure 24.

Pruning Locations 1273A and 1273B are two dead branches that are to be removed.



Figure 24 - Tree 1273 Pruning Locations