The Dog on the Tucker Box Redevelopment

Tree Inventory

A Report to;

COOTAMUNDRA-GUNDAGAI REGIONAL COUNCIL

Prepared by;

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August 2023
Ref. 23/452.

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Trees on The Dog on the Tucker Box Site, Five Mile, via Gundagai.

1 Introduction

Mark D. McCrone, consulting Arborist and Landscape Architect, has been engaged by Brendan Price, The Price Group, to undertake an inspection of extant trees on (and surrounding) The Dog on the Tucker Box site at Five Mile, via Gundagai. This inspection's observations and recommendations regarding the subject trees are recorded and discussed in the following report.

2 Report Background, Purpose and Scope

As part of the development application documentation for the proposed redevelopment of The Dog on the Tucker Box site the development's proponents have undertaken an recording and assessment of all the trees on (and surrounding) that development site that will be potentially impacted by the proposed works. The subject trees were inspected and photographed, and information on them recorded, on 26 April, 2023. A second site visit was necessary, due to the evolving development design, on 28 July, 2023.

The tree recording and assessment will provide;

- a recording of the trees' species and physical stature - diameter at breast height (DBH) and height;
- a description of the trees' current condition & vigour, and their crown & structural viability (identifying any existing hazards) ; and
- an appraisal of the trees.

The development site's location is shown in Exhibit 1. The extent of the trees surveyed is shown in Exhibit 2, and mapping of the trees recorded is included as Appendix B to this report.

Exhibit 1 – Locality Plan; The Dog on the Tucker Box site, Five Mile, via Gundagai.

Source; https://six.lands.nsw.gov.au

Exhibit 2 – Extent of Tree Survey; The Dog on the Tucker Box site, Five Mile, via Gundagai.

Source; https://six.lands.nsw.gov.au

3 Tree Recording & Condition Description

The recording and assessment of the trees on the site of the proposed mixed use commercial development at The Dog on the Tucker Box involved a total of twenty-eight (28) trees, two of which were ground level stumps at the time of the site inspection. The locations of these trees are shown on the plan included as Appendix B of this report. Two additional trees (identified as Trees 29 and 30 in this report), which are outside the area of the tree survey undertaken (see Exhibit 2), will also be removed to enable the construction of the requisite parking for the proposed facility. These trees have also been included on the Table included as Appendix A to this report and Appendix C includes a photo of them (sourced from Google Streetview).

Recording for individual trees involved the following. The tree locations in the field were established using the *Avenza Maps Pro* mobile mapping app. Each tree was identified to species and any detectable "defects" were noted. Estimated tree heights and DBH have been (generally) taken from the (2010) survey plan provided. Any tree defects were established by an "on ground" inspection for symptoms and decay; neither excavation for root crown investigation, nor an aerial inspection of the trees' canopy, was conducted. A visual recording (via photography) of all trees' current physical form was also undertaken and is presented as Appendix C.

A "Tree Condition" rating (outlined below) was also attributed to the trees. It should be emphasised that this rating relates to the tree's condition at the time of assessment. The rating is a product of both the tree (its health) and the surrounding conditions. Changes to either the tree or its environment may result in a change to the Tree Condition

The following "Tree Condition" categories were utilized to describe the general condition of trees on the development site;

Good – a tree of good habit, a form not severely restricted for space and light, physically free from the adverse effects of predation by pests or disease, obvious instability or structural weaknesses, and is expected to continue to live in much the same condition as at the time of inspection provided conditions around it do not alter greatly.

Fair – a tree of good habit or misshapen, a form not severely restricted for space and light, has some physical indication of decline due to the early effects of predation by pests or disease, or has suffered physical injury that may be contributing to instability or structural weaknesses. Such a tree may recover with remedial works where appropriate, or may stabilize or improve over time, or in response to the implementation of beneficial changes to its local environment.

Poor – a tree of good habit or misshapen, a form that may be severely restricted for space and light, exhibits symptoms of advanced and irreversible decline due to the effects of predation by pests or disease, or has suffered physical injury that has lead to instability or structural weaknesses. Such a tree may decline further to death regardless of remedial works. Physical deterioration is characterised by a proportionate increase in susceptibility to, and predation by, pests & disease against which the tree cannot sustain its dynamic mass.

4 Description of the trees' current condition

The trees on the subject development site consist of planted ornamental trees, both Australian native and exotic species (see Exhibits 1 and 2, and Appendices A to C). These trees have been planted to provide shade and amenity for the buildings, car parking facilities and other amenities on the land. Evidence from historical photographs (see Exhibits 3 and 4) suggests that the ornamental tree planting surrounding the Dog on the Tucker Box Monument has all been planted post 1950s, making the (oldest) trees in the order of 50 to 60 years old.

The species and physical condition of the trees are presented in a Table as Appendix A to this report. The tree numbering used to identify the trees in that Table is as shown in on the plan included as Appendix B.

Most of the trees inventoried in Appendix A are to be removed to facilitate the proposed mixed use commercial development and its ancillary parking provision within Annie Pyers Drive road reserve (see Demolition Plan, Appendix D).

Tree No. 11, a Lemon-scented Gum (*Corymbia citriodora*), is the only tree within the footprint of the proposed development that is proposed to be retained, within a future courtyard of the proposed development (see Appendix D). This tree is illustrated in Exhibit 5. The tree is currently characterised by a high (& sparse) crown with perimeter (small diameter) deadwood and prior limb failures (to 150mm diameter). The tree's crown density is probably attributable to its current surrounds of hard pavement and lawn areas (which would be subject to compaction from heavy pedestrian foot traffic). Proposals for the amended landscape surrounds of this tree involve lawn areas, mulched garden beds and paved footpaths traversing the courtyard space. It is imperative that this tree be given full and adequate protection during any future construction works (in accordance with AS4970-2009; *Protection of trees on development sites*).

Tree Nos. 4, 7 and 8, all Brittle Gums (*Eucalyptus mannifera*), are also proposed to be retained. Tree 4 is well removed from any proposed construction works. Tree Nos. 7 and 8 could be potentially impacted by the construction of parking facilities on the eastern edge of their requisite tree protection zones (TPZs – see Section 5.2.1 and Appendix D). The proposed parking areas detailed on the Development Drawings may encroach on those Tree's TPZs, but the works would be limited to sealing of car park surfacing, the encroachment is expected to be "minor" (less than 10% of the TPZ) and the area lost to encroachment can be compensated for by extension of the remaining TPZ area which will not be impacted by any proposed development. Alteration of surface levels in this area will be subject to future detailed engineering design, and should be minimised in the vicinity of the those trees if they are to be successfully retained. Additionally an edging detail that involves fixing by point "pinning", rather than excavation for a "flush concrete edge", should be investigated for the proposed car park areas that encroach on the TPZ's of Tree Nos. 7 and 8.

Tree No. 20, a Liquidamber (*Liquidambar styraciflua*), was identified during the recording and assessment work as being unsuitable for retention, irrespective of site planning considerations. It is large tree with basal stem wound (1.5m long and 400-500mm across) & decay on the south-east side of the tree's stem. The wounding and decay probably originates from the removal of a lower lateral branch to affix signage to the tree (see Exhibit 6). The tree's long term stability is compromised by this structural fault and a future stem failure is a realistic possibility.

Various observations and comment on the other trees inventoried are included in the Table included as Appendix A.

Exhibit 3 – The Dog on the Tucker Box Monument - with minimal surrounding trees - 1932 (**upper** image) and 1956 (**lower** image).
Sources; https://www.thedogonthetuckerbox.com/old_photos__history_info (upper image)
https://www.nfsa.gov.au/collection/curated/jack-ohagan-and-dog-tuckerbox (lower image)

Exhibit 4 – The Dog on the Tucker Box Monument, 1963 (**upper** image) and 1970s (**lower** image). The two trees on the left of the upper image are probably those identified as Tree Nos. 22 and 23 in this report.
Sources; https://www.flickr.com/photos/88572252@N06/12311069594 (upper image)
https://www.australiangeographic.com.au/news/2022/08/power-of-the-dog/ (lower image)

Exhibit 5 – Tree No. 11.

Exhibit 6– The wounding and decay on the stem of Tree No. 20.

5 Discussion and Recommendations

5.1 – Discussion

As tabulated in Appendix A and shown in Appendix D, twenty-four of the existing trees are to be removed to facilitate the proposed mixed use commercial development and its ancillary parking provision within Annie Pyers Drive road reserve.

5.2 – AS4970-2009; *Protection of trees on development sites*

5.2.1 – Tree Protection Zones (TPZs)

The tree protection zone (TPZ) is the principal means of protecting trees on development sites – the area that is to be isolated from construction disturbance, so that the tree remains viable. The radius of the TPZ is calculated for a tree by multiplying its trunk diameter at 1.4m above ground (DBH) by twelve, with the radius measured from the centre of the stem at ground level. A TPZ should not be less than two metres nor greater than fifteen metres.

The TPZ radius for those trees assessed on and surrounding the development site which are to be retained, most of which have DBHs in the range of 50 to 65 centimetres, would be 6 to 8 metres.

5.2.2 - Structural Root Zones (SRZs)

The SRZ is the area required for tree stability and only needs to be calculated when encroachment into a TPZ is proposed. AS4970-2009 determines the SRZ by application of the following formula;

SRZ (radius) = $(\boldsymbol{D} \times \mathbf{50})^{\mathbf{0.42}} \times \mathbf{0.64}$

where ***D*** = trunk diameter, in metres, measured above the root buttress.

The resultant SRZ for Tree 11, discussed in Section 4, would be approximately 3 metres.

5.3 – Recommendations

All existing trees that are retained on the development site should be given full and adequate protection during construction works (in accordance with AS4970-2009; *Protection of trees on development sites*) and all necessary work undertaken on them should be carried out in accordance with AS4373-2007; *Pruning of amenity trees*.

Finally, it should also be noted that trees cannot be guaranteed 'risk free'. All trees represent some degree of risk. Arboriculture is not an exacting science; rather it is an educated interpretation of the interaction of edaphic and environmental circumstances which are, of course, subject to change over time. This report documents such an interpretation of evidence available at the time of the trees' inspection.

Mark McCrone
August 2023.

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6 Further Information

Further details or clarification with respect to any matter raised by this report may be obtained from **Mark McCrone** on 04 0790 7958 or via email to larch_therock@bigpond.com.

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References

Standards Australia, 2007. *Pruning of amenity trees*: AS 4373 – 2007. SA: Sydney.

Standards Australia, 2009. *Protection of trees on development sites*: AS4970-2009. SA: Sydney.

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Appendix

A

Inventory of Existing Trees

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Tree Reference No. (Refer to Appendices B & C)	Scientific Name	Common Name	Height (m)	DBH (cm)	Condition (Refer to Section 3)	Notes
1	Tree removed					Tree removed - ground level stump
2	*Corymbia maculata*	Spotted Gum	20	65	Good	High crown; some small diameter deadwood
3	*Corymbia maculata*	Spotted Gum	6	50	Poor	Very poor condition; two stems, bifurcated at base, mostly dead; only live tissue epicormic shoots from base.
4	*Eucalyptus mannifera*	Brittle Gum	14	65	Good	Large lower NW lateral pruned off.
5	*Platanus* X *hispanica*	Plane Tree	15	100	Fair	Deadwood & hangers in crown (to about 100mm dia.)
6	*Eucalyptus cinerea;*	Argyle Apple	12	40	Poor	Sparse crown, probably attributable to surrounding ground compaction; lower laterals (long) removed.
7	*Eucalyptus mannifera*	Brittle Gum	18	60	Fair	High crown & deadwood to 150mm diameter; prior limb failures to 250mm diameter
8	*Eucalyptus mannifera*	Brittle Gum	18	50	Fair	Similar to Tree 7, also Cockie damage high on stem
9	*Melia azederach*	White Cedar	12	100	Fair	Large tree, has previously had major laterals shortened (for vehicle clearance) especially N & E of crown; deadwood high in crown & perimeter dieback; current season defoliation by sawfly larvae
10	*Eucalyptus sideroxylon*	Mugga Ironbark	15	40	Fair	High crown with SW leaders (over lawn / picnic tables) shortened; basal water shoots (E & N) from root pruning(?); extensive mistletoe infestation of crown
11	*Corymbia citriodora*	Lemon-scented Gum	18	50	Fair	High (& sparse) crown with perimeter (small diameter) deadwood and prior limb failures to 150mm; crown density probably attributable to surrounding ground compaction / pavement.
12	*Platanus* X *hispanica*	Plane Tree	15	70	Good	Deadwood, to about 100mm diameter, throughout crown.
13	*Fraxinus* Raywood	Claret Ash	15	55	Fair	Upright crown, biased to N & W, due to competition from adjacent Plane Tree; apical dieback of leaders at top of canopy
14	*Fraxinus* Raywood	Claret Ash	12	45	Good	Stem lean & major crown bias to W, due to competition from neighbouring trees (both extant and removed); lift pruning has removed major lower laterals (to about 10m)
15	*Corymbia citriodora*	Lemon-scented Gum	10	65	Fair	Main leader previously lopped at 4m; Fair condition, due to species resistance to decay.
16	Tree removed	(probably) Blue Gum				Coppicing stump (probably Blue Gum)

17	*Eucalyptus bicostata.*	Blue Gum	25	150	Good	Very large basal bole that forks into major (NE) leader & three other secondary leaders (to NW, W & S); upper crown density a little thin & some epicormic juvenile foliage in lower crown; surrounded by current services infrastructure of electricity service line & septic system.
18	*Eucalyptus camaldulensis.*	River Red Gum	30	140	Fair	Very large; multiple prior failures, some >300mm dia.; leader & lower laterals to N pruned off
19	*Corymbia citriodora*	Lemon-scented Gum	18	70	Fair	Surrounded by hard pavement; small diameter (<50mm) deadwood throughout crown.
20	*Liquidambar styraciflua*	Liquidamber	15	65	Poor	Large tree with basal wound (1.5m long, 400-500mm across) & decay SE side, probably originates from removal of lower lateral branch (for signage); long term stability of tree compromised as stem failure a possibility - Remove tree.
21	*Melaleuca bracteata* Revolution Gold	Honey Myrtle	12	15	Good	7 stems; adjacent to (coppicing stump of) removed Poplar.
22	*Quercus palustris*	Pin Oak	16	60	Fair	N & E laterals have been "tipped" (or shortened) for vehicular clearance; crown intermingled with adjacent Silky Oak; habit more broad spreading than is typical of the species; young shoots on lower stem, despite previous lift prunes.
23	*Grevillea robusta*	Silky Oak	16	50	Good	Crown biased to N, "surrounded" (on S side) by branching of adjacent Pin Oak; internal deadwood (to 50mm dia.)
24	*Grevillea robusta*	Silky Oak	16	85	Fair	Large basal bole that forks into three leaders; internal deadwood (to 50mm) & some perimeter dieback
25	*Liquidambar styraciflua*	Liquidamber	12	30	Good	Stem forks to two leaders (at 1m), junction sound; young tree with upright habit
26	*Grevillea robusta*	Silky Oak	14	40	Good	Smallest diameter in avenue of five Silky Oaks; small diameter internal deadwood and tip dieback
27	*Grevillea robusta*	Silky Oak	14	40	Good	High crown & condition and features as other Silky Oaks (Nos. 23, 24, 26 & 28)
28	*Grevillea robusta*	Silky Oak	15	70	Good	Largest and most vigorous of Silky Oak avenue; small basal opening & cavity, E side; internal deadwood as other Silky Oaks, though perimeter dieback not prevalent.
29	*Grevillea robusta*	Silky Oak	12	30	Fair	
30	*Brachychiton populneus*	Kurrajong	10	50	Fair	

Tree No. – Trees to be removed

Note; Tree Heights and DBH taken from Detail Survey, CMS Surveyors Pty Ltd, Dwg. Ref. 6227detail/1

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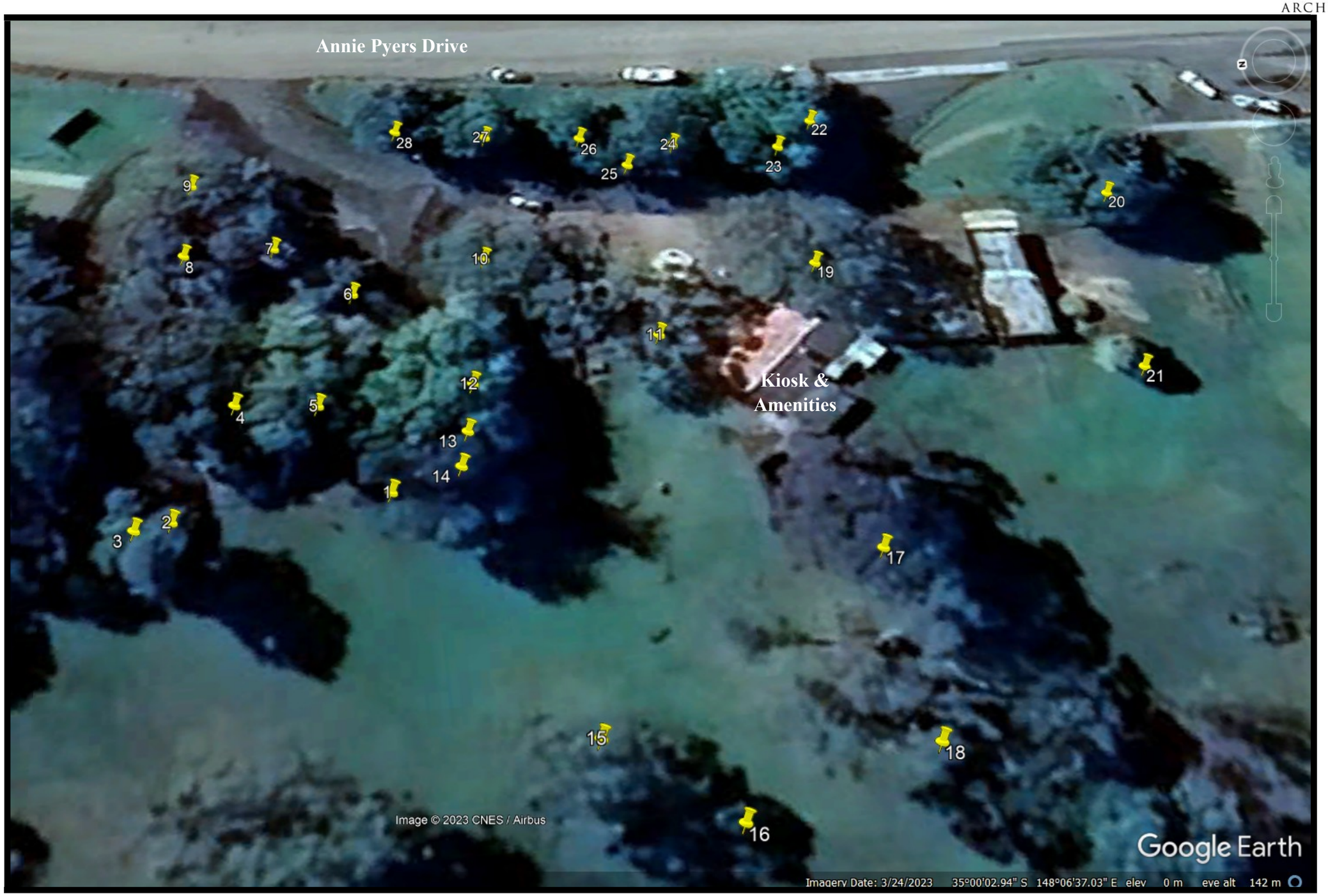
B

Existing Tree Mapping



Note; Read in Conjunction with Development Plans, included as Appendix D to this Report

Dog on the Tucker Box Tree Survey

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Appendix

C

The Dog on the Tucker Box Site

TREE PROFILES

23/452

Tree No. 1

23/452

Tree No. 2

23/452

Tree No. 3

23/452

Tree No. 4

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Tree No. 5

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Tree No. 6

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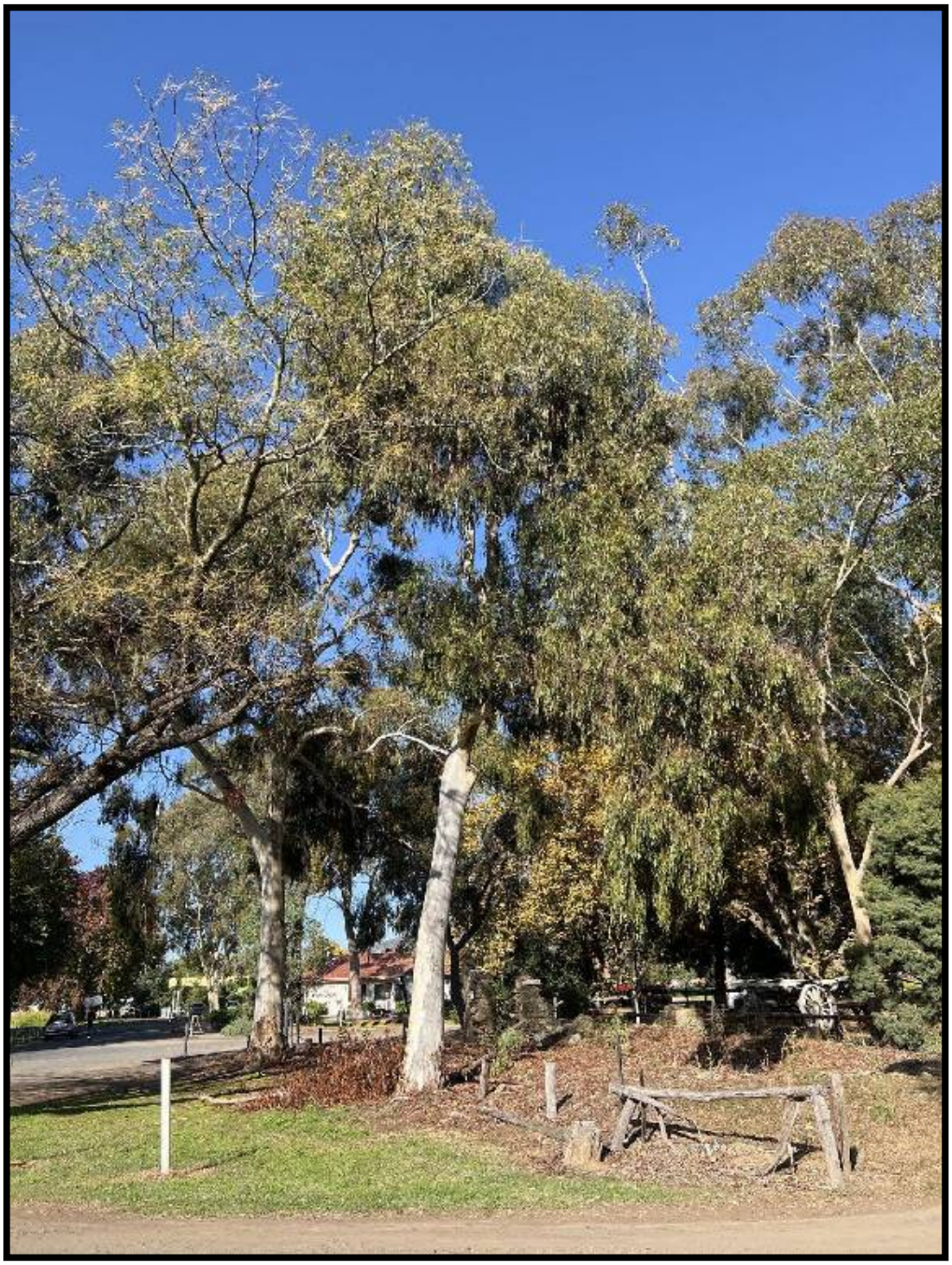
Tree No. 7

4.1.5 – Tree No. 8



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Tree No. 9

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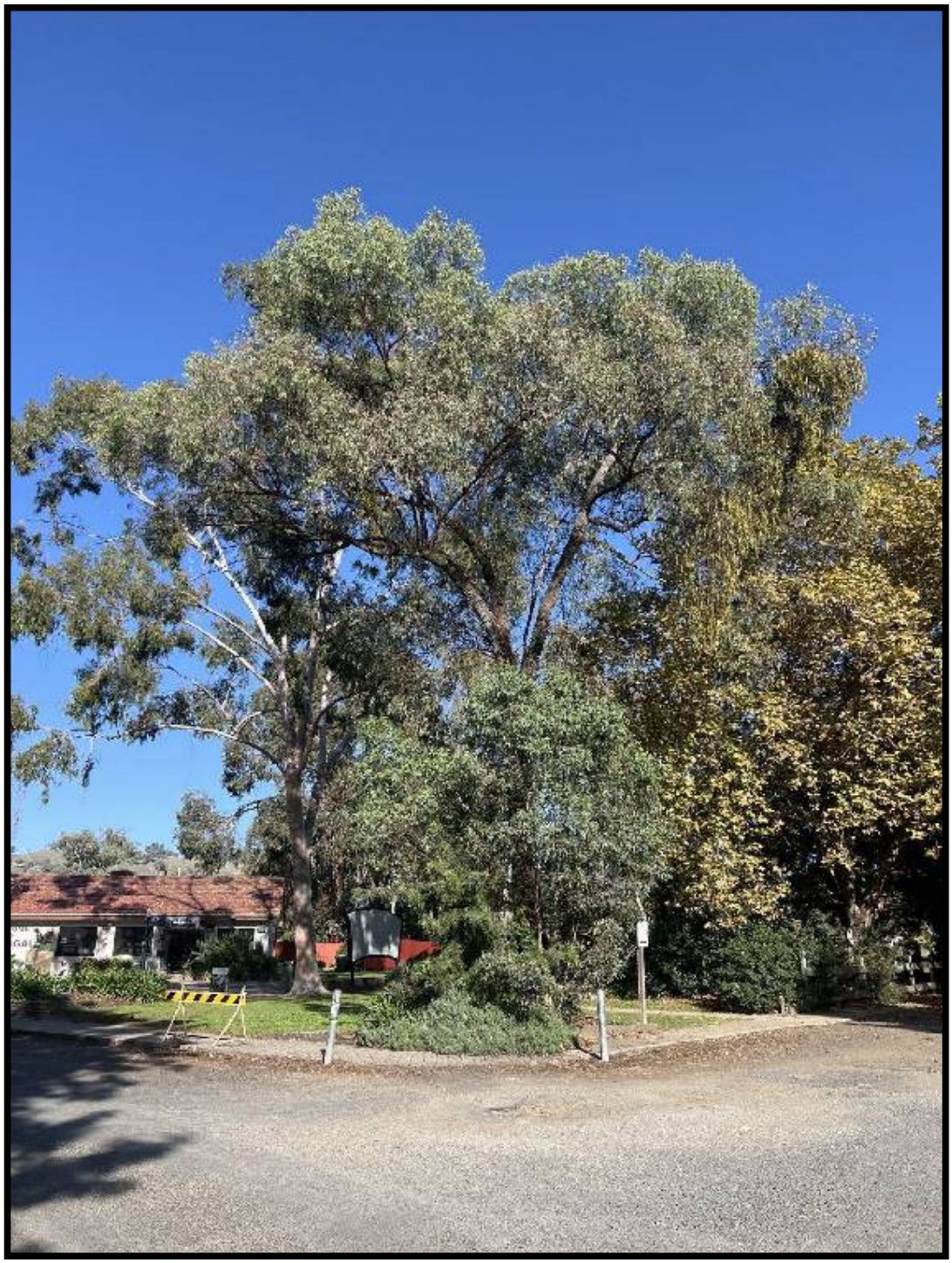
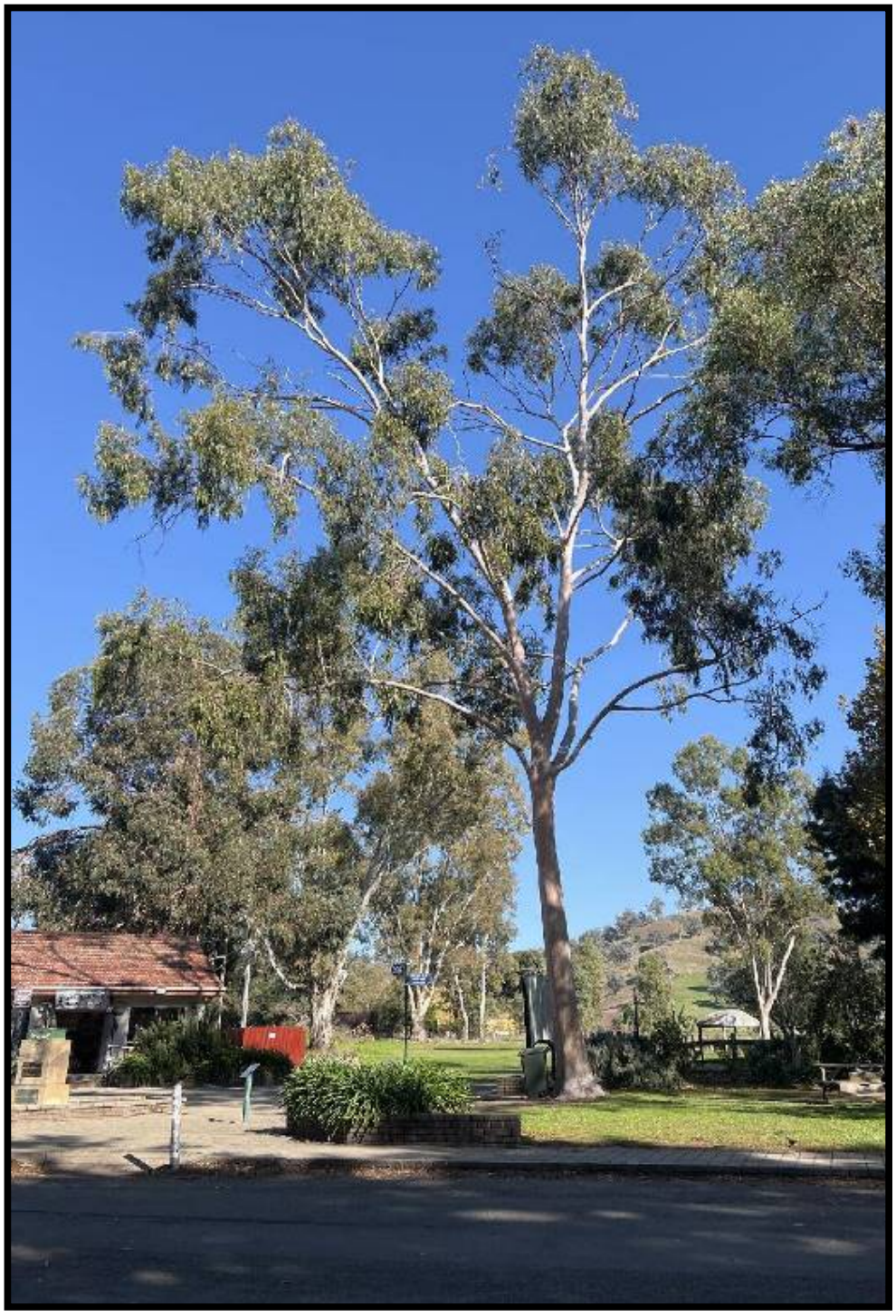
Tree No. 10



Tree No. 11



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Tree No. 12

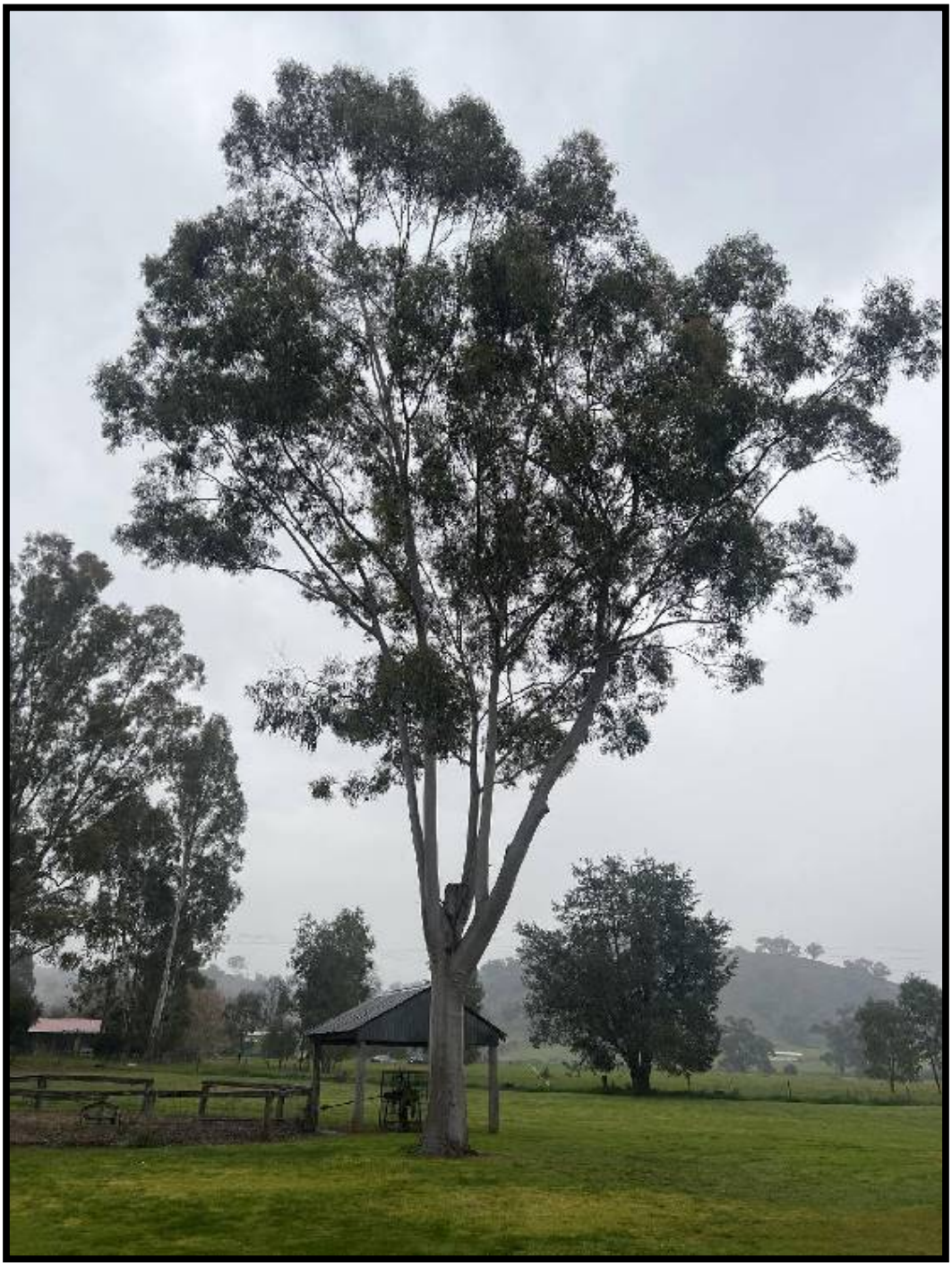
23/452

Tree No. 13

23/452

Tree No. 14

Tree No. 15



Tree No. 16

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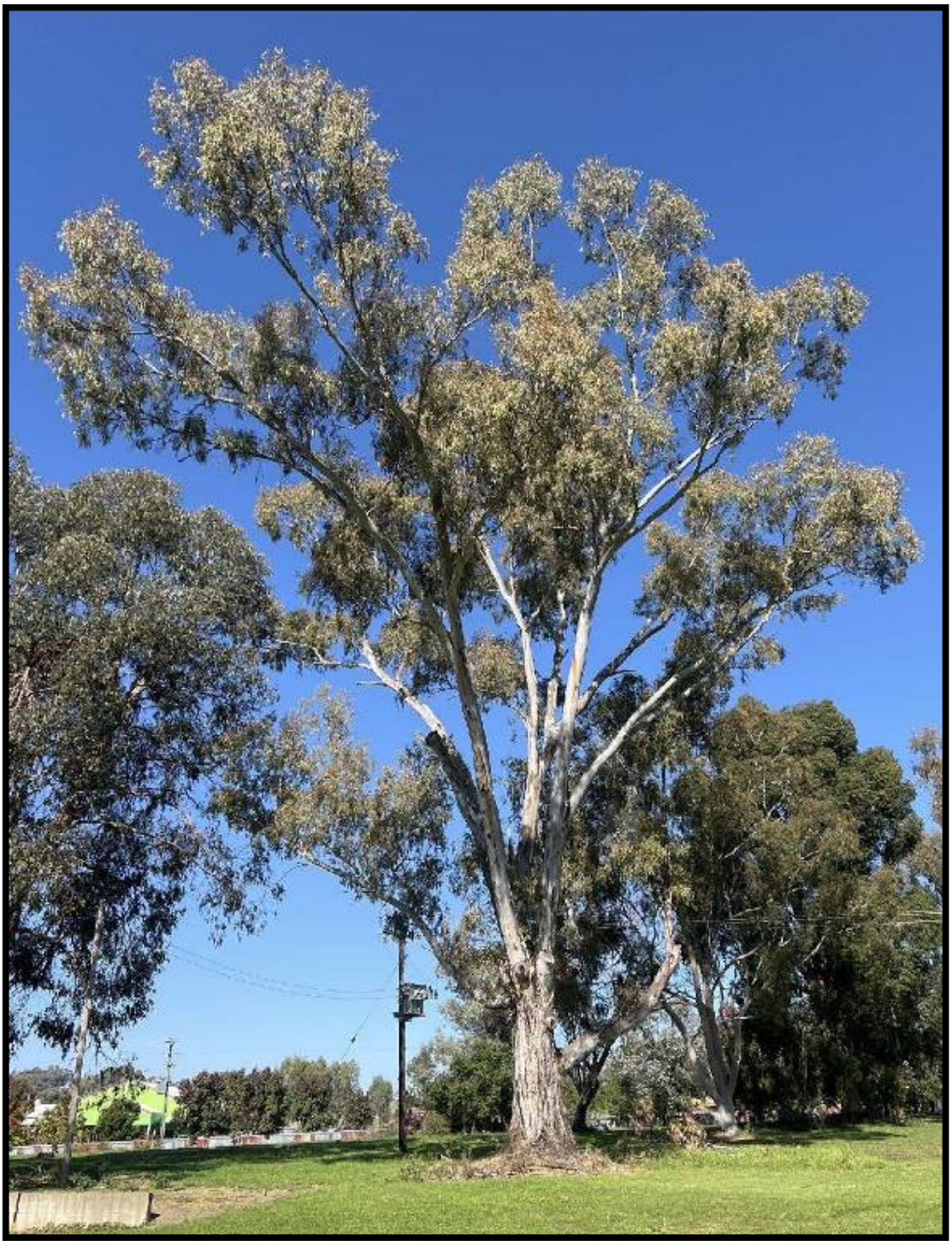
Tree No. 17

23/452

Tree No. 18



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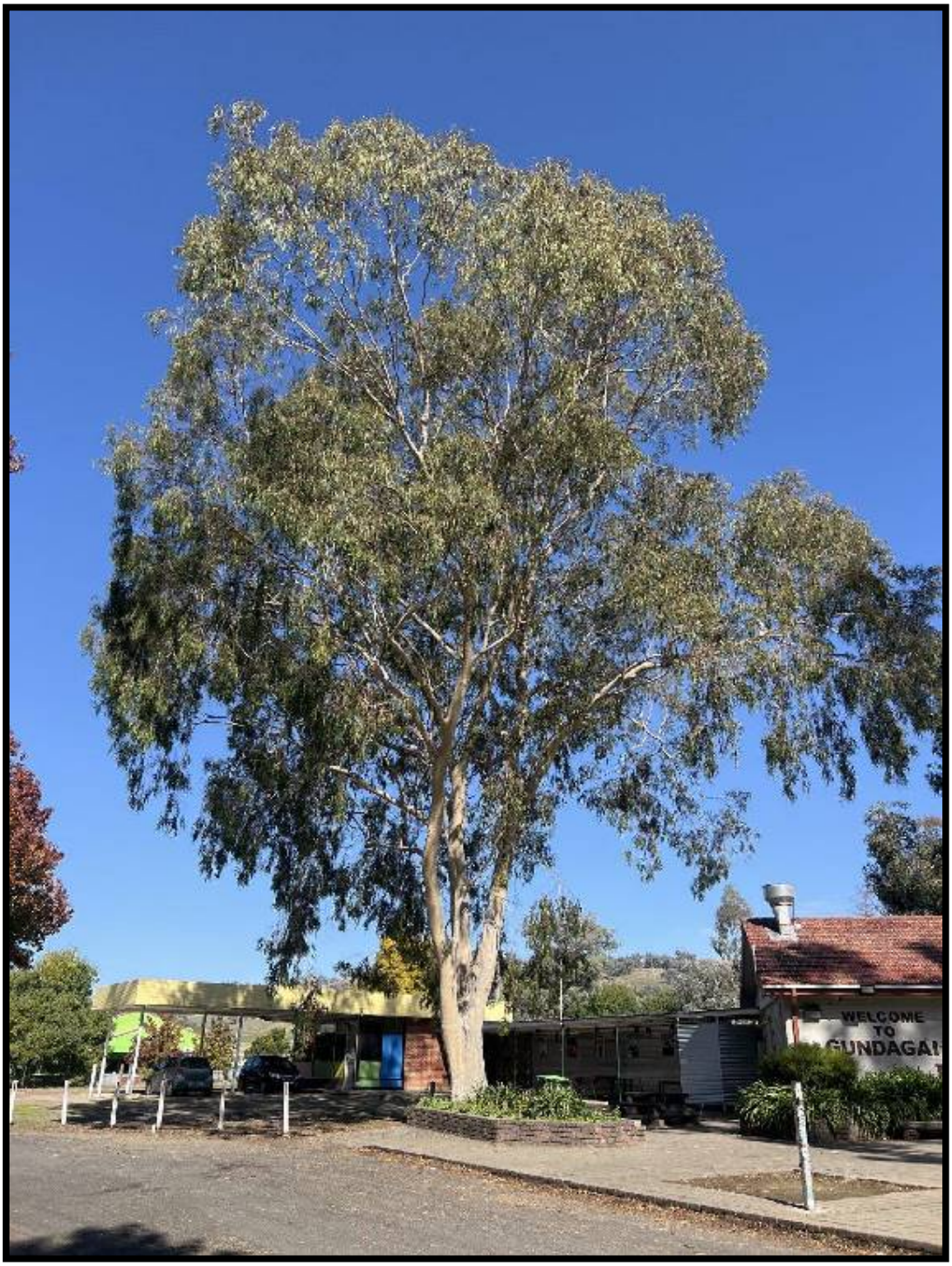
Tree No. 19



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Tree No. 20

23/452

Tree No. 21

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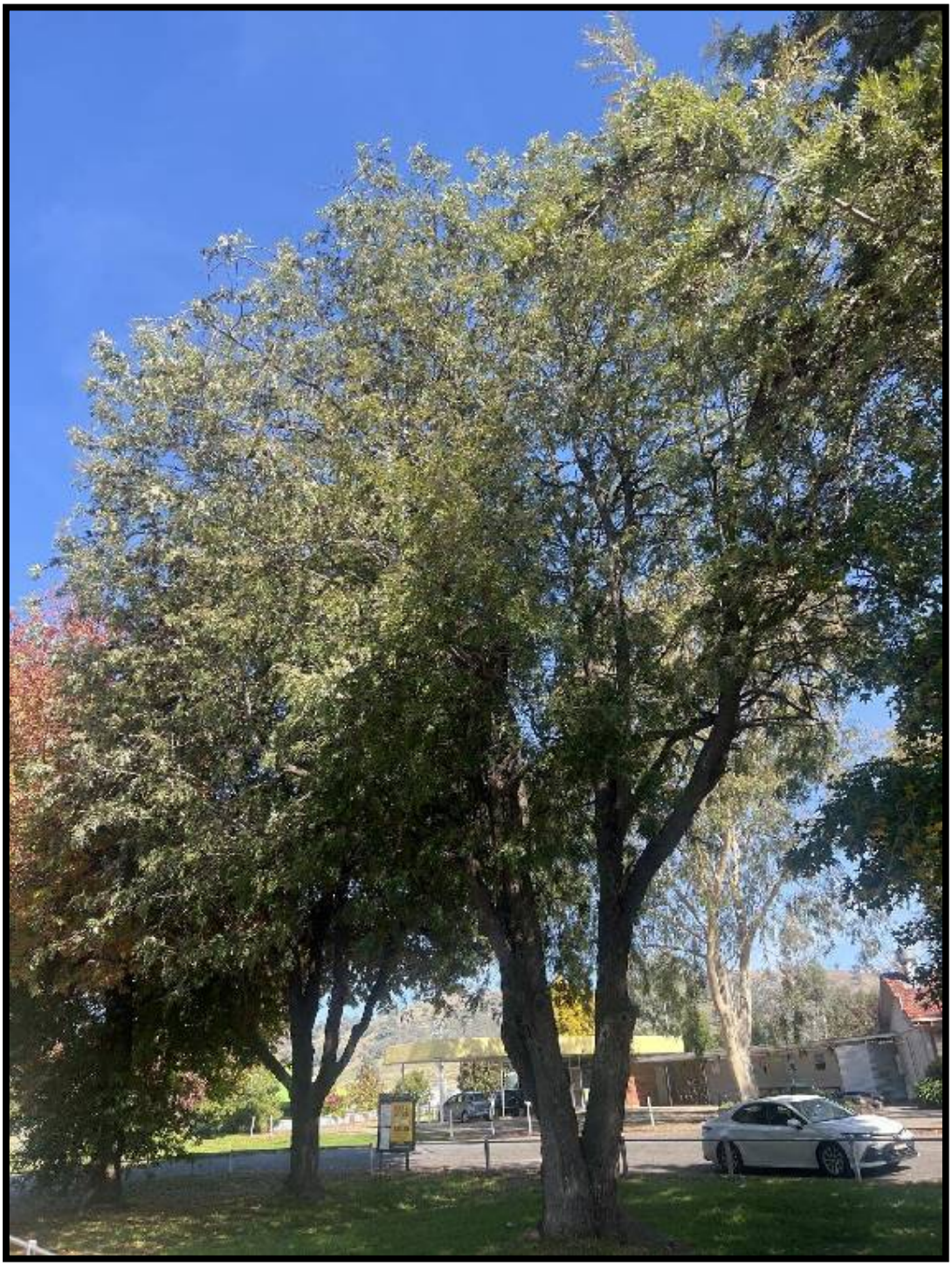
Tree No. 22

23/452

Tree No. 23

23/452

Tree No. 24



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Tree No. 25

23/452

Tree No. 26

23/452

Tree No. 27

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Tree No. 28

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Tree Nos. 29 and 30

Tree 29 (**Right**) and Tree 30 (**Left**), June 2022.

Source; Google Streetview, June 2022 https://www.google.com.au/maps

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Appendix

D

Proposed Development Plans

Source; SN Architects

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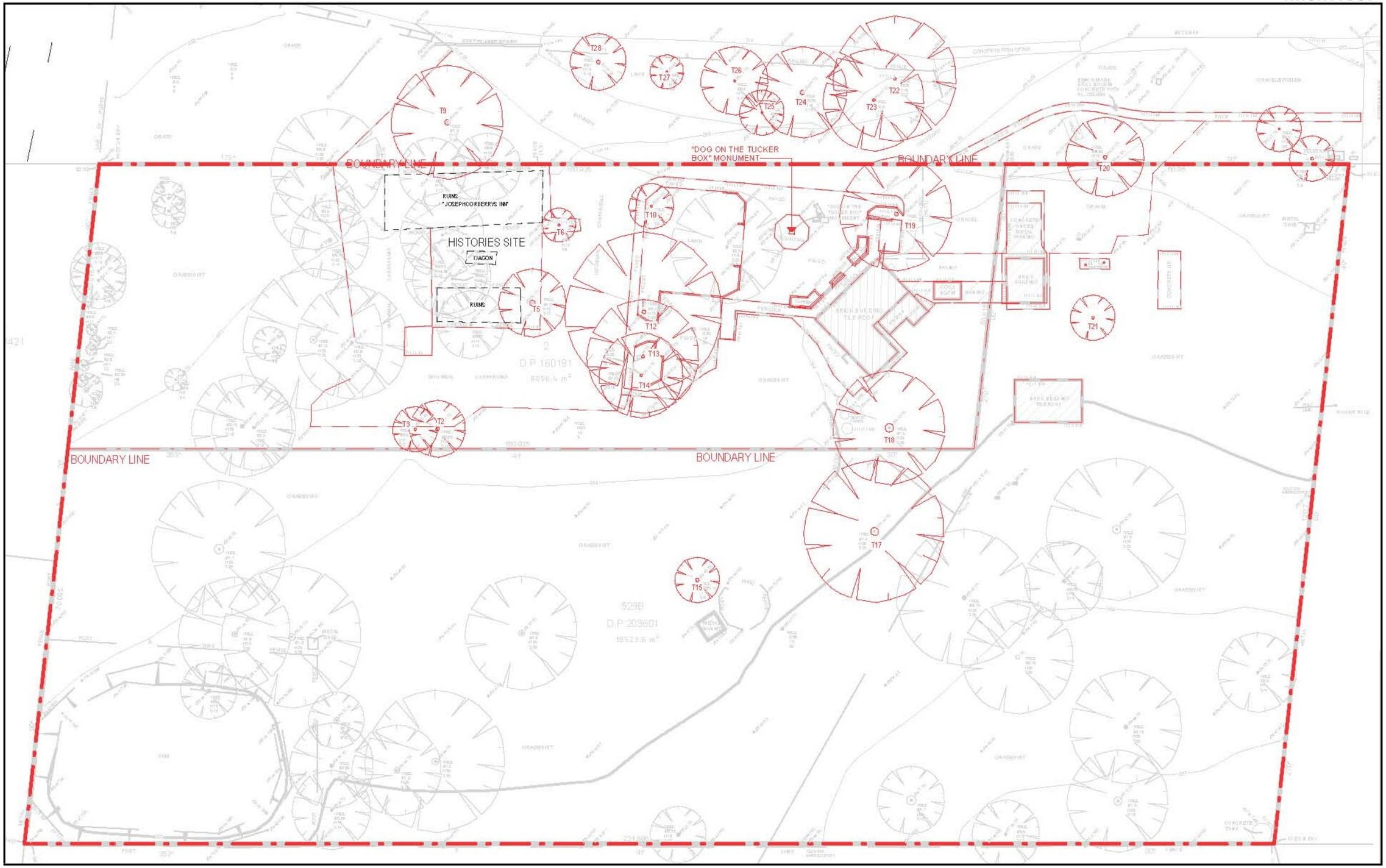

Dog on the Tucker Box Proposed Development Drawings

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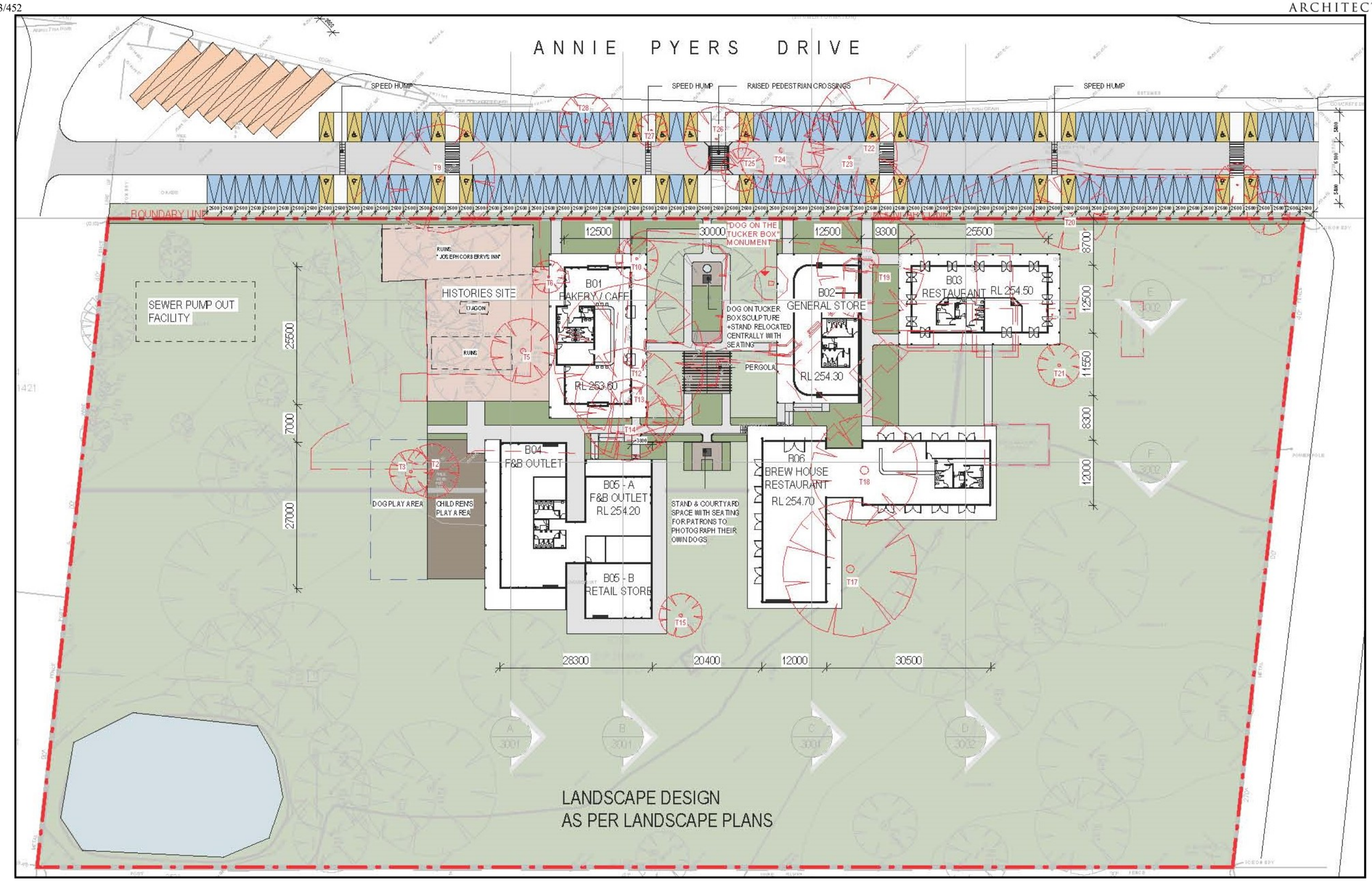

Dog on the Tucker Box Proposed Development Drawings