TREE PROTECTION SPECIFICATIONS

1. Tree Protection Measures and Protocols.
All work around existing trees to be retained shall be in accordance with AS 4970-2009 Protection of trees on development sites with the clear establishment of the required Tree Protection Zones (TPZ's). If the scope of work allowed within or the extent of the Tree Protection Zones of existing trees is not clear, please refer to the Contract Manager or Project Consulting Arborist for clarification.

Before any site works commence tree protection zones and other measures must be established and conveyed to those all working on the site. The Contractor shall ensure all subcontractors are inducted prior to working on the site. All inductions shall include description and identification of the Tree Protection Zones and the restriction on work and activities with regard to trees.

Damage to roots or degradation of the soil through compaction and/or excavation within TPZ's is likely to cause serious damage to the tree. Any work operations required within TPZ's must be carried out with extreme care. All trees, palms and other shrubs within TPZ's are to be retained unless shown otherwise on the Tree Protection Plan(s). Trees marked for retention shall not be used to display signage, or as fence or cable supports for any reason. No materials stockpiling, chemicals or washout areas are permitted immediately upslope of or within the Tree Protection Zone. The washing down of wheel barrows, paint cans/brushes, acids and the like shall not to be done near existing trees as the runoff is very harmful to tree roots.

No fuel powered pumps or generators or air compressors are to be placed within TPZ's. No fuel or chemicals shall be stored and no equipment or vehicles shall be serviced or re-fuelled within a TPZ.

2. Controlled Construction Access
Construction access points, stockpiling and storage areas shall be clearly identified on site and fenced off where appropriate. Uncontrolled access and parking of vehicles inside TPZ's shall be avoided. If access is required through a tree protection zone, the access way shall be treated with ground protection.

3. Tree Protection Fencing & Signage
The Tree Protection Plan(s) shows the extent of areas to be fenced and protected. Protection measures shall be certified as adequate by the Project Consulting Arborist. This fencing may form part of the general construction site fencing, where practical. It shall remain in place as long as possible and typically not be removed until the final landscape installation in those areas begins.

All tree protection fencing shall be 1800mm high galvanised chain wire or welded steel mesh. Fencing must be bolted together and secured with the necessary back stays and bracing.

Star pickets with bunting or danger tape shall not constitute acceptable tree protection fencing.

Suitable signage as defined by AS 4970-2009 Appendix C shall be affixed to the external side of the fencing at a spacing of not less than 1 sign per 20 lineal metres of fence.

If fence locations conflict with the proposed works, contact the Project Consulting Arborist and Contract Manager for resolution. No new services (unless under-bored) shall be located within or through the Tree Protection Zone.

4. Trunk and Lower Branch Protection
A trunk barrier is to be erected around the circumference of the tree trunk and root buttress where shown. This barrier will consist of a double layer of used carpet or carpet underfelt placed around the trunk. A layer of battens is to be placed over the underfelt. The battens are to have a maximum spacing of 50mm. The height of the battens is to be 2 metres or to the height of the first branches. Lower large branches may require the same protection if likely to be damaged by passing vehicles or equipment. Secure in place with galvanised steel bracing straps. Do not nail into or otherwise injury the trunk or bark. Battens may be made from any suitable waste timber of similar sizes and depths. All sharp or protruding edges are to be properly covered with tape or similar padding.

5. Works within the TPZ
All work within the root zone of existing trees shall be undertaken with the utmost care. If by necessity a tree requires removal of branches for building or access, pruning shall be done in strict accordance with accepted arboriculture techniques and AS 4373-2007. No rubbish, spoil or new materials shall be placed on the root zone of any existing tree or against their trunks.

6. Ground Protection
If it is proposed to create any access route, or similar, within the TPZ of a retained tree, the Contractor shall install rumble boards over the TPZ ground surface. No excavation shall be allowed. Contractor shall first place a suitable permeable geotextile to the extent required and then a 100mm thick layer of wood chip mulch or coarse no-fines gravel over the extent to be covered. Then place hardwood boards (minimum 3600 x 200 x 75mm) on their flat edge, side by side, with a 30 - 50mm gap to form a rumble strip. These boards are to be held together with three galvanised metal bracing straps nailed to each board. The two outer straps are to be approximately 200mm in from the ends of the boards. The third strap is to be along the centre line of the boards.

7. Provision of Temporary Irrigation
A temporary and automated (battery powered timer is sufficient) watering system to be placed within the TPZs of all trees to maintain adequate water to the retained trees and help maintain their healthy condition. This shall be a surface mounted 'residential-style' soaker hose and/or similar surface sprinkler systems. It is to be surface visible and spray delivered so that is operation can be easily visible and verified. It should be on a designated supply line, separate from other construction related water supplies to minimise its likelihood of being disconnected.

Typically, during spring and summer months it should be set to run for a minimum of 30 minutes every day, in the early morning. During, autumn and winter months it should be set to run for 1 hour once every week. The operation can be suspended temporarily in periods of extensive and prolonged rain.

The system is to remain in place for the duration of construction, or until the project consulting arborist approves it's removal. It may be removed to allow final landscape treatments to proceed. If accidentally disturbed or damaged by construction activities, it is to be reinstated as soon as practicable.

8. Structural Demolition Within TPZ's
Project Consulting Arborist shall be on site during all demolition work within the TPZ's to monitor and advise on tree protection. Secateurs and a handsaw shall be available to deal with and cleanly cut any exposed roots that have to be cut. Machines with a long reach may be used if they can work from outside TPZ's or from protected areas within TPZ's. They shall not encroach onto unprotected soil in TPZ's.

Debris to be removed from TPZ's must be moved across existing hard surfacing or temporary ground protection in a way that prevents compaction and disturbance of soil. Alternatively, it can be lifted out by machines provided this does not disturb TPZ's or damage the canopy. If appropriate, leave below ground structures such as footings and disused pipes in place if their removal will cause excessive root disturbance.

When pulling up existing paving the Contractor shall work backwards, lifting demolished paving back onto the existing paving. Roots may be found growing under the pavement and should not be trafficked. Roots growing into existing sub-base should be left and new surface finishes placed over the top without disturbance.

9. Excavations or Trenching within TPZ's
Excavation within TPZ's shall not be allowed using mechanical equipment such as excavators or backhoes. Excavation within TPZ's shall only be carried out carefully by hand taking care not to damage the bark and wood of any roots. Specialist tools for removing soil around roots using compressed air (air spade), or water vacuum extraction shall be an appropriate alternative to hand digging and is the preferred method.

Exposed roots to be removed shall be cut cleanly with a sharp saw or secateurs at the face of the excavation. Roots temporarily exposed must be protected by appropriate covering with damp hessian or sand. Roots greater than 50mm in diameter are to be retained and shall only be cut in exceptional circumstances and only after consultation with the Project Consulting Arborist. Roots greater than 100mm in diameter shall typically not be allowed to be cut and must be worked around.

10. Soft Landscaping Installation
Final trimming and planting shall be judiciously undertaken around trees. All soft landscaping within the tree protection zones will be installed with care to avoid root disturbance from irrigation trenching, lighting installation and the planting of larger plants. Permanent irrigation (if used) shall be installed as spray heads located outside of TPZ's and spraying inwards. All other services such as small-scale electrical services shall also be designed and installed to avoid any excavation or trenching around the trees.

No significant excavation or cultivation, especially by rotary hoes or excavators, shall occur within TPZs. Where new designs require the levels to be increased, good quality and permeable top soil shall be used. It should be firmed into place but not over compacted. All areas close to tree trunks shall be kept at the original ground level. Where turf is to be installed tree trunks shall have mulched rings applied rather than grass laid up to the trunk.

The size of the installed plants shall typically be less than 5L pots so that the maximum depth of the new root balls is less than 200mm. Any planting proposed that is larger than this shall be only installed outside of the SRZ and with care to not injure roots while digging planting holes.

11. Canopy Pruning
The Contractor shall prune branches of protected trees only as directed by the Project Consulting Arborist. Pruning is only to be undertaken by a qualified arborist (under the supervision of a person with AQF Level 4 or above). The Project Consulting Arborist is to be at present at all times during the pruning work. Work is to be in strict accordance with to AS4373 Pruning of Amenity Trees. Do not treat wounds.

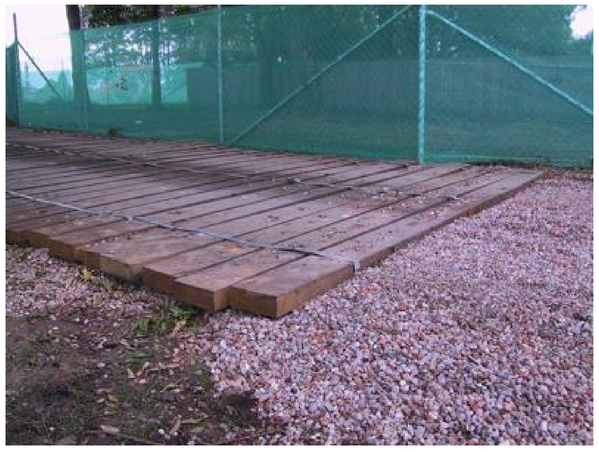
12. Root Pruning
Pruning of roots of protected trees shall only be as directed the Project Consulting Arborist. The Tree Contractor shall use only a qualified arborist (AQF Level 4 or above). The Project Consulting Arborist is to be present at all times during the root pruning.

Roots are not to be cut using normal excavation machinery of any sort. This usually results in splitting and massive disturbance well past the intended line of cut. When required to cut roots, use hand methods and sharp hand tools (e.g. secateurs, hand saw) such that the remaining root systems are preserved intact and undamaged. Roots are to be cut back by hand square to the direction of the root travel (or edge of the excavation). Do not cut any tree roots exceeding 40mm diameter unless permitted. Excavations within root zones should be kept open for as short a period as possible. Any excavated face containing roots is to be temporarily supported, where necessary, to prevent soil loss from around the other retained roots.

13. Accidental Tree Damage
Should a tree be accidentally damaged, the Contractor shall immediately notify the Project Consulting Arborist. Timing can be of the essence, particularly with bark injuries, trunk damage or chemical contaminations.

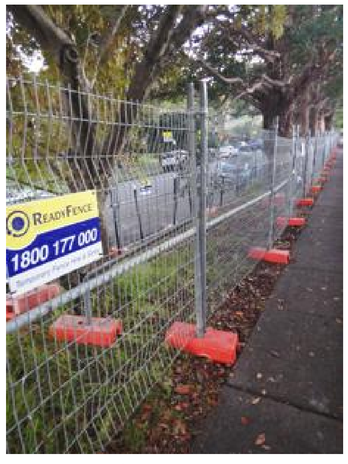
If a branch has been broken, it shall be removed and the damaged end pruned to a suitable branch collar. If the branch has been torn out of the trunk, assessment shall be made and the damage cleaned up by as much as possible without further damage to the tree.

If roots are accidentally disturbed or excavated, any broken, crushed and torn sections shall be exposed and pruned leaving clean cuts to minimise risk of infection by fungal pathogens and promote good conditions for new root growth.



Example image of acceptable ground protection rumble boards

Example image of acceptable tree tree protection battens



Example image of acceptable tree protection fencing measures to be applied. (1.8m high rigid metal fencing with appropriate lateral bracing)

Allambie Heights Village Project 2 - Tree Impact Assessment Schedule

Tree ID	Tree Species	Common Name	Trunk Diameter Breast Height (dbh) (m)	Trunk Diameter at base (dgl) (m)	Nominal TPZ radius (m) 12xdbh (AS 4970)	Nominal SRZ radius (m) (AS 4970)	Retention Value	Recommendation
1	*Pinus canariensis*	Canary Pine	0.58	0.77	6.96	2.97	Moderate	Retain and Protect
2	*Pinus canariensis*	Canary Pine	0.17	0.27	2.04	1.91	Low	Remove
3	*Pinus canariensis*	Canary Pine	0.22	0.31	2.64	2.02	Low	Remove
4	*Pinus canariensis*	Canary Pine	0.15	0.22	2.00	1.75	Low	Remove
5	*Pinus canariensis*	Canary Pine	0.27	0.37	3.24	2.18	Low	Remove
6	*Pinus canariensis*	Canary Pine	0.35	0.43	4.20	2.32	Low	Remove
7	*Pinus canariensis*	Canary Pine	0.25	0.30	3.00	2.00	Low	Remove
8	*Pinus canariensis*	Canary Pine	0.39	0.50	4.68	2.47	Low	Remove
9	*Pinus canariensis*	Canary Pine	0.18	0.23	2.16	1.79	Low	Remove
10	*Pinus canariensis*	Canary Pine	0.39	0.50	4.68	2.47	Low	Remove
11	*Pinus canariensis*	Canary Pine	0.40	0.59	4.80	2.65	Low	Remove
12	*Pinus canariensis*	Canary Pine	0.31	0.39	3.72	2.23	Low	Remove
13	*Callistemon viminalis cv.*	Weeping Bottlebrush	0.22	0.25	2.64	1.85	Moderate	Retain and Protect
14	*Erythrina x sykesii*	Coral Tree	0.37	1.20	4.44	3.57	V Low / Remove	Remove
15	*Erythrina x sykesii*	Coral Tree	0.49	5.00	5.88	6.51	V Low / Remove	Remove
16	*Ligustrum sinense*	Narrow-leaf Privet	0.22	0.50	2.64	2.47	V Low / Remove	Remove
17	*Erythrina x sykesii*	Coral Tree	0.92	1.15	11.04	3.51	V Low / Remove	Remove
18	*Erythrina x sykesii*	Coral Tree	0.88	1.55	10.56	3.98	V Low / Remove	Remove
19	*Banksia ericifolia*	Heath Banksia	0.25	0.25	3.00	1.85	Low	Remove
20	*Salix sp.*	Willow	0.65	0.65	7.80	2.76	V Low / Remove	Remove
21	*Allocasuarina littoralis*	Black She-Oak	0.25	0.35	3.00	2.13	Low	Remove
22	*Angophora costata*	Smooth-barked Apple	0.29	0.35	3.48	2.13	High	Retain and Protect
23	*Eucalyptus punctata*	Grey Gum	0.68	0.80	8.16	3.01	Moderate	Retain and Protect
24	*Angophora costata*	Smooth-barked Apple	0.27	0.29	3.24	1.97	High	Retain and Protect
25	*Eucalyptus punctata*	Grey Gum	0.24	0.35	2.88	2.13	Moderate	Retain and Protect
26	*Eucalyptus punctata*	Grey Gum	0.32	0.40	3.84	2.25	High	Retain and Protect
27	*Persoonia levis*	Broad-levaed Geebung	0.24	0.24	2.88	1.82	High	Retain and Protect
28	*Eucalyptus saligna*	Sydney Blue Gum	0.43	0.63	5.16	2.73	High	Retain and Protect
29	*Eucalyptus robusta*	Swamp Mahogany	0.40	0.47	4.80	2.41	Moderate	Remove
30	*Eucalyptus botryoides*	Bangalay	0.29	0.37	3.48	2.18	Moderate	Remove
31	*Eucalyptus botryoides*	Bangalay	0.36	0.47	4.32	2.41	Moderate	Remove
32	*Eucalyptus robusta*	Swamp Mahogany	0.19	0.24	2.28	1.82	Low	Remove
33	*Eucalyptus botryoides*	Bangalay	0.29	0.35	3.48	2.13	Moderate	Remove
34	*Eucalyptus robusta*	Swamp Mahogany	0.38	0.46	4.56	2.39	Moderate	Remove
35	*Eucalyptus botryoides*	Bangalay	0.42	0.50	5.04	2.47	Moderate	Remove
36	*Eucalyptus botryoides*	Bangalay	0.40	0.46	4.80	2.39	Moderate	Remove
37	*Eucalyptus robusta*	Swamp Mahogany	0.51	0.64	6.12	2.74	Moderate	Remove
38	*Eucalyptus botryoides*	Bangalay	0.50	0.62	6.00	2.71	Moderate	Remove
39	*Eucalyptus robusta*	Swamp Mahogany	0.84	0.96	10.08	3.25	High	Remove
40	*Michelia champaca*	Champaca	0.17	0.20	2.04	1.68	V Low / Remove	Remove
41	*Corymbia gummifera*	Red Bloodwood	0.41	0.44	4.92	2.34	Moderate	Retain and Protect
42	*Eucalyptus saligna*	Sydney Blue Gum	0.14	0.20	2.00	1.68	Moderate	Retain and Protect
43	*Eucalyptus saligna*	Sydney Blue Gum	0.52	0.66	6.24	2.78	Low	Retain and Protect
44	*Corymbia gummifera*	Red Bloodwood	0.35	0.39	4.20	2.23	Low	Remove
45	*Corymbia gummifera*	Red Bloodwood	0.42	1.00	5.04	3.31	Moderate	Remove
46	*Eucalyptus haemastoma*	Scribbly Gum	0.80	0.80	9.60	3.01	Low	Remove
47	*Pinus radiata*	Monterey Pine	0.62	0.72	7.44	2.88	V Low / Remove	Remove
48	*Pinus radiata*	Monterey Pine	0.68	0.83	8.16	3.06	V Low / Remove	Remove
49	*Pinus radiata*	Monterey Pine	0.63	0.70	7.56	2.85	V Low / Remove	Remove
50	*Pinus radiata*	Monterey Pine	0.95	1.08	11.40	3.42	Low	Remove
51	*Pittosporum undulatum*	Sweet Pittosporum	0.28	0.47	3.36	2.41	Low	Remove
52	*Morus nigra*	Mulberry	0.20	0.40	2.40	2.25	V Low / Remove	Remove
53	*Populus deltoides*	American Cottonwood	0.95	1.18	11.40	3.55	Low	Remove
54	*Eucalyptus saligna*	Sydney Blue Gum	1.25	1.25	15.00	3.63	Low	Remove
55	*Eucalyptus saligna*	Sydney Blue Gum	1.13	1.24	13.56	3.62	High	Retain and Protect
56	*Pittosporum undulatum*	Sweet Pittosporum	0.18	0.19	2.16	1.65	Low	Remove
57	*Pittosporum undulatum*	Sweet Pittosporum	0.12	0.18	2.00	1.61	Low	Remove
58	*Ligustrum vulgare?*	Privet	0.26	1.00	3.12	3.31	V Low / Remove	Remove
59	*Ligustrum lucidum*	Broadleaf Privet	0.21	0.37	2.52	2.18	V Low / Remove	Remove
60	*Acacia parramattensis*	Parramatta Wattle	0.23	0.27	2.76	1.91	Low	Remove
61	*Eucalyptus saligna*	Sydney Blue Gum	0.22	0.28	2.64	1.94	Low	Remove
62	*Pittosporum undulatum*	Sweet Pittosporum	0.17	0.32	2.04	2.05	V Low / Remove	Remove
63	*Acacia parramattensis*	Parramatta Wattle	0.22	0.30	2.64	2.00	Low	Remove
64	*Acacia parramattensis*	Parramatta Wattle	0.25	0.37	3.00	2.18	Low	Remove
65	*Pinus radiata*	Monterey Pine	0.45	0.54	5.40	2.55	Low	Remove
66	*Pinus radiata*	Monterey Pine	0.43	0.47	5.16	2.41	Low	Remove
67	*Pinus radiata*	Monterey Pine	0.55	0.59	6.60	2.65	V Low / Remove	Remove
68	*Lophostemon confertus*	Brush Box	0.27	0.33	3.24	2.08	Low	Remove
69	*Eucalyptus haemastoma*	Scribbly Gum	0.48	1.20	5.76	3.57	Moderate	Remove
70	*Corymbia gummifera*	Red Bloodwood	0.24	0.35	2.88	2.13	Low	Remove
71	*Glochidion ferdinandi*	Cheese Tree	0.50	0.50	6.00	2.47	High	Retain and Protect
72	*Eucalyptus saligna*	Sydney Blue Gum	0.37	0.44	4.44	2.34	Moderate	Retain and Protect
73	*Eucalyptus saligna*	Sydney Blue Gum	0.86	1.08	10.32	3.42	Moderate	Retain and Protect
74	*Pinus radiata*	Monterey Pine	0.37	0.44	4.44	2.34	V Low / Remove	Remove
75	*Pinus radiata*	Monterey Pine	0.25	0.31	3.00	2.02	V Low / Remove	Remove
76	*Eucalyptus saligna*	Sydney Blue Gum	0.27	0.33	3.24	2.08	Moderate	Retain and Protect
77	*Leptospermum polygalifolium*	Tea Tree	0.26	0.42	3.12	2.30	Low	Remove
78	*Corymbia gummifera*	Red Bloodwood	0.22	0.28	2.64	1.94	Low	Remove
79	*Acacia parramattensis*	Parramatta Wattle	0.17	0.23	2.04	1.79	Low	Remove
80	*Acacia parramattensis*	Parramatta Wattle	0.80	0.27	9.60	1.91	Low	Remove
81	*Acacia parramattensis*	Parramatta Wattle	0.27	0.37	3.24	2.18	Low	Remove
82	*Acacia parramattensis*	Parramatta Wattle	0.23	0.29	2.76	1.97	V Low / Remove	Remove
83	*Acacia parramattensis*	Parramatta Wattle	0.35	0.37	4.20	2.18	Low	Remove
84	*Corymbia gummifera*	Red Bloodwood	0.31	0.40	3.72	2.25	Low	Remove
85	*Acacia parramattensis*	Parramatta Wattle	0.31	0.37	3.72	2.18	V Low / Remove	Remove
86	*Acacia parramattensis*	Parramatta Wattle	0.00	0.00	2.00	0.00	V Low / Remove	Remove
87	*Acacia parramattensis*	Parramatta Wattle	0.17	0.22	2.04	1.75	Low	Remove
88	*Acacia parramattensis*	Parramatta Wattle	0.25	0.32	3.00	2.05	Low	Remove
89	*Acacia parramattensis*	Parramatta Wattle	0.26	0.34	3.12	2.10	Low	Remove
90	*Acacia parramattensis*	Parramatta Wattle	0.24	0.34	2.88	2.10	Low	Remove
91	*Acacia parramattensis*	Parramatta Wattle	0.17	0.26	2.04	1.88	Low	Remove
92	*Banksia serrata*	Old Man Banksia	0.23	0.29	2.76	1.97	Moderate	Remove
93	*Banksia ericifolia*	Heath Banksia	0.18	0.38	2.16	2.20	Moderate	Retain and Protect
94	*Allocasuarina littoralis*	Black She-Oak	0.23	0.31	2.76	2.02	Moderate	Retain and Protect
95	*Banksia ericifolia*	Heath Banksia	0.20	0.25	2.40	1.85	Moderate	Remove
96	*Araucaria heterophylla*	Norfolk Island Pine	0.44	0.56	5.28	2.59	High	Retain and Protect
97	*Glochidion ferdinandi*	Cheese Tree	0.60	0.60	7.20	2.67	High	Retain and Protect
98	*Callistemon salignus cv.*	Willow Bottlebrush	0.36	0.72	4.32	2.88	Low	Retain and Protect
99	*Populus nigra 'Italica'*	Lombardy Poplar	1.00	1.10	12.00	3.44	Low	Remove
100	*Populus nigra 'Italica'*	Lombardy Poplar	0.44	0.52	5.28	2.51	Low	Remove
101	*Populus nigra 'Italica'*	Lombardy Poplar	0.19	0.25	2.28	1.85	Low	Remove
102	*Pittosporum undulatum*	Sweet Pittosporum	0.12	0.16	2.00	1.53	Low	Remove
103	*Olea europaea subsp. europea*	European Olive	0.24	0.29	2.88	1.97	Low	Remove
104	*Leptospermum petersonii*	Lemon Scented Tea Tree	0.09	0.11	2.00	1.31	Low	Remove
105	*Callistemon sp.*	Bottlebrush	0.08	0.18	2.00	1.61	V Low / Remove	Remove
106	*Leptospermum petersonii*	Lemon Scented Tea Tree	0.13	0.22	2.00	1.75	Low	Remove
107	*Callistemon viminalis cv.*	Weeping Bottlebrush	0.15	0.22	2.00	1.75	Low	Remove

arterra

ARTERRA DESIGN PTY LTD ABN 40 069 552 610
SUITE 602 / 51 RAWSON STREET, EPPING, NSW 2121
P 02 9957 2466 **F** 02 9957 3977 **W** ARTERRA.COM.AU

NOTE
Refer to the accompanying Arboricultural Impact Assessment Report for full description of trees, measurements and methods used to assess the trees, and proposed tree protection measures. Refer to T-03 for Tree Protection and Removal Plan.

REVISION	DESCRIPTION	CHKD	DATE
A	For Authority Approval/DA	RWS	15/11/19

PROJECT & CLIENT
Allambie Heights Village - Project 2
Allambie Heights Village Ltd.

Project No : 18.11
Designed : CLB
Drawn : CLB
Scale : N/A
North

DRAWING TITLE
Tree Protection Specification & Schedule

DRAWING NUMBER
T-02

REVISION
A

Plotted at : 12:10 pm 14/11/19

Tree Impact and Protection Plan Legend

- Existing Tree Retained — Extent of canopy as verified by site measure and aerial photos
- Existing Tree Removed — (Note: no TPZ's shown for these trees)
- Tree Identification Number
- Construction Period Tree Protection Zone - consolidated area
- Tree Protection Zone temporary fencing
- Trunk Protection Battens to be installed
- Loss of roots due to excavation or trenching
- Surface impact to be managed - minimal root loss expected
- Nominal Tree Protection Zone Radius (TPZ)
- Proposed Future Building Outline
- Existing buildings and structures to be demolished
- Extent of ground modification and disturbance

Existing Sydney Water Pipeline

Minor incursion due to excavation for concrete slab

Landscape pathway- surface impacts to be managed.

CREEK LINE

Ex. Rock Outcrop

TREES NEED TO BE REMOVED FOR BUILDING/GRADING AND SERVICES CONNECTION

Existing Carpark to be Modified

Existing Garage to be Removed

Courtyard

Existing Building to be Retained

Landscape pathway- surface impact to be managed and existing levels retained. Minimal root impact expected.

Existing rock-outcrop to be retained.

Building suspended above ground. Ground levels are not disturbed and does not impact tree. Some minor surface impacts to be managed.

Existing internal driveway to be carefully removed to ensure existing levels are retained. Minimal root impact expected.

Assumed root loss for accessible pathway to lower car park level.

Existing building to be demolished. Project arborist to be present during demolition and care shall be taken to avoid damage to existing roots and canopies of adjacent trees.

Assumed root loss due to excavation for building structure. Basement level is 400-500mm below existing ground levels. A low retaining wall shall be built at the basement edge to retain existing ground levels around the tree.

EXISTING INTERNAL DRIVEWAY

TREES NEED TO BE REMOVED FOR BUILDING/GRADING AND SERVICES CONNECTION

Existing internal driveway levels are to be retained. All proposed services are to be run on the north side of the driveway. Minimal root impact expected.

Existing Internal Driveway to be Removed

Existing Building to be Removed

Existing Building to be Retained

Existing Sheds to be Removed

DRIVEWAY

Landscape pathway- surface impact to be managed. Minimal root impact expected.

Building scaffold and roof construction- surface impact to be managed. Minimal root impact expected.

Landscape pathway- surface impact to be managed. Minimal root impact expected.

Rock Outcrop

Existing Shed

Existing Carport

Existing Carpark

ALLAMBIE ROAD

NOTE
Refer to the accompanying Arboricultural Impact Assessment Report for full description of trees, measurements and methods used to assess the trees, and proposed tree protection measures. Refer to T-02 for tree protection specifications and schedule.

0 5 10 25m

REVISION	DESCRIPTION	CHKD	DATE
A	For Authority Approval/DA	RWS	15/11/19

arterra

ARTERRA DESIGN PTY LTD ABN 40 069 552 610
SUITE 602 / 51 RAWSON STREET, EPPING, NSW 2121
P 02 9957 2466 **F** 02 9957 3977 **W** ARTERRA.COM.AU

PROJECT & CLIENT
Allambie Heights Village - Project 2
Allambie Heights Village Ltd.

Project No : 18.11
Designed : CLB
Drawn : CLB
North
Scale : 1:250@A1/1:500@A3

DRAWING TITLE
Tree Protection & Removal Plan

DRAWING NUMBER
T-03

REVISION
A

Plotted at : 12:23 pm 14/11/19