



Northern Tree Care

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6 Abalone Place, Ballina. NSW 2478

28 Aug 2023

Client: ADCO
RE: Blakebrook Public School

Tree Protection During Demolition

ADCO is building new school buildings at Blakebrook Public School following the recent floods. This will include the demolition of the existing school buildings and the removal of the demountable classrooms currently being used by the school.

A tree survey has been carried out by Northern Tree Care to locate and describe the trees growing on the school grounds. This has been provided to ADCO and has been used by TaylorBrammer to develop a Landscape Plan.

The Landscape Plan shows the location of the trees, their unique identifying number and the Tree Protection Zone for each tree.

The Australian Standard *AS 4970-2009 Protection of trees on development sites* gives guidance on the management of trees during construction. This includes protection of trees during demolition of existing structures. It is important to protect the trees retained in the development so that they can be retained in a healthy viable state.

The trees in the school grounds should be protected during demolition of the existing buildings. The specifications for the protection of the trees is given below.

Tree Protection

The trees retained on the site should be protected during construction in accordance with the recommendations of the Australian Standard *AS 4970-2009 Protection of trees on development sites*. The Standard sets out a Tree Protection Zone that is calculated to be an area around the tree with a radius of 12 x diameter at breast height (DBH). The TPZ has a minimum of 2 m and maximum of 15 m. The TPZ should be protected during construction as effectively as is practicable.

The Standard lists activities that are prohibited in the TPZ. They are:

- a. Machine excavation
- b. excavation for silt trenching
- c. cultivation
- d. storage
- e. preparation of chemicals, including preparation of cement products
- f. parking of vehicles and plant
- g. refuelling
- h. dumping of waste
- i. wash down and cleaning of equipment
- j. placement of fill
- k. lighting of fires
- l. soil level changes
- m. temporary or permanent installation of utilities and signs and
- n. physical damage to the tree.

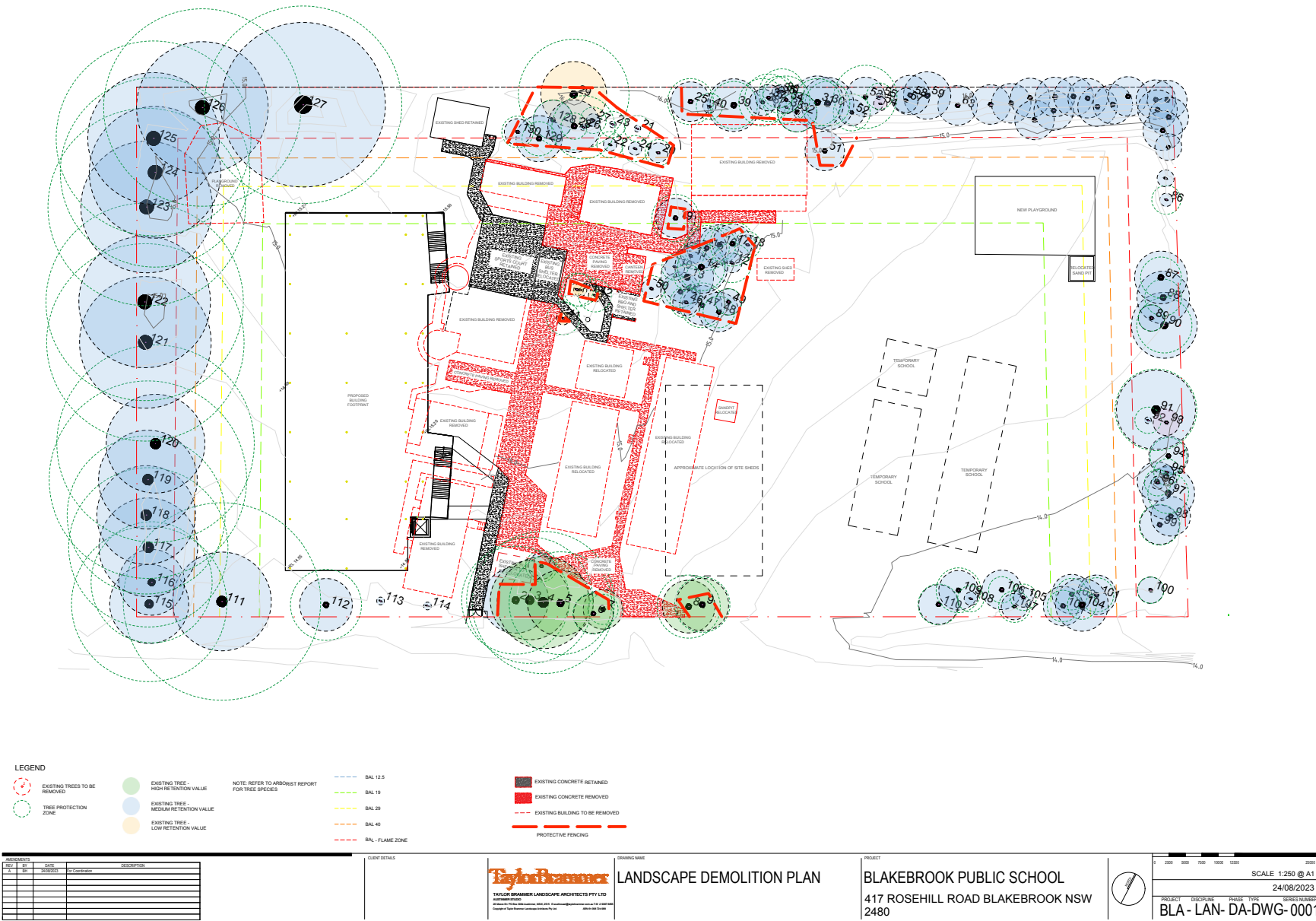
The proposed demolition of existing buildings is planned to be undertaken within the TPZ of some of the trees. In order to ensure that the trees remain viable it is important to protect them during construction as much as is practicable. Any of the activities detailed above should not be undertaken in the TPZ of the tree unless absolutely necessary. A 1 m high mesh fence should be erected around the trees. An example of a suitable fence is shown in Figure 1. The location of the fence is shown in Figure 2.

The protective fencing must be installed before commencement of works and not removed before the demolition works are completed.



Figure 1. Example of a suitable protective fence.

Figure 2. Location of protective fence.





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15 Aug 2023

ADCO

Blakebrook

Tree Data

Tree #	Name	Height m	DBH mm	Crown m	TPZ m
1	Grevillea <i>Grevillea</i> sp	10	200	4	2.4
2	Rainforest sp	14	680	10	8.2
3	Tuckeroo <i>Cupaniopsis anacardioides</i>	14	800	12	9.6
4	Rainforest sp	14	900	14	10.8
5	Guioa <i>Guioa semiglauca</i>	14	650	10	7.8
6	Guioa <i>Guioa semiglauca</i>	10	260	6	3.1
7	Cheese Tree <i>Glochideon ferdinandii</i>	6	190	6	2.3
8	Tuckeroo <i>Cupaniopsis anacardioides</i>	6	400	8	4.8
9	Tuckeroo <i>Cupaniopsis anacardioides</i>	10	350	8	4.2
10	Mandarin <i>Citrus reticulata</i>	2	80	3	2.0
11	Mandarin <i>Citrus reticulata</i>	2	100	3	2.0
12	Mandarin <i>Citrus reticulata</i>	2	250	3	3.0
13	Lemon <i>Citrus limon</i>	6	100	8	2.0
14	Peach <i>Prunus persica</i>	8	300	8	3.6
15	Brushbox <i>Lophostemon confertus</i>	8	280	6	3.4
16	Ivory Curl <i>Buckinghamia celsissima</i>	8	210	6	2.5
17	Swamp Mahogany <i>Eucalyptus robusta</i>	8	280	6	3.4
18	Ivory Curl <i>Buckinghamia celsissima</i>	4	180	4	2.2
19	Silky Oak <i>Grevillea robusta</i>	6	300	6	3.6
20	Mandarin <i>Citrus reticulata</i>	2	50	3	2.0

Tree #	Name	Height m	DBH mm	Crown m	TPZ m
21	Lemon <i>Citrus limon</i>	2	60	1	2.0
22	Citrus <i>Citrus</i> sp	4	70	2	2.0
23	Citrus <i>Citrus</i> sp	1	50	1	2.0
24	Orange <i>Citrus reticulata</i>	2	80	2	2.0
25	Cudgerie <i>Flindersia australis</i>	10	290	6	3.5
26	Lilli Pilli <i>Syzygium</i> sp	4	400	1	4.8
27	Davidson Plum <i>Davidsonia pruriens</i>	6	160	2	2.0
28	Davidson Plum <i>Davidsonia pruriens</i>	8	40	8	2.0
29	Mango <i>Mangifera indica</i>	14	700	10	8.4
30	Bottlebrush <i>Callistemon viminalis</i>	8	280	8	3.4
31	Bottlebrush <i>Callistemon viminalis</i>	16	300	8	3.6
32	Silky Oak <i>Grevillea robusta</i>	10	250	6	3.0
33	Not found				
34	Lilli Pilli <i>Syzygium</i> sp	10	210	4	3.6
35	Guioa <i>Guioa semiglauc</i>	10	200	2	2.4
36	Guioa <i>Guioa semiglauc</i>	10	280	2	3.4
37	Guioa <i>Guioa semiglauc</i>	10	210	4	3.6
38	Guioa <i>Guioa semiglauc</i>	10	300	4	3.6
39	Brushbox <i>Lophostemon confertus</i>	12	300	8	3.6
40	Rainforest sp	3	80	2	2.0
41	Dracena <i>Dracena</i> sp	5	280	2	2.5
42	Dracena <i>Dracena</i> sp	4	250	2	2.5
43	Dracena <i>Dracena</i> sp	4	300	2	2.5
44	Dracena <i>Dracena</i> sp	3	240	2	2.5
45	Lilli Pilli <i>Syzygium</i> sp	10	200	6	2.4
46	Bottlebrush <i>Callistemon</i> sp	6	200	4	2.4
47	Bottlebrush <i>Callistemon viminalis</i>	8	280	6	3.4
48	Bottlebrush <i>Callistemon viminalis</i>	8	200	6	2.4
49	Peach <i>Prunus persica</i>	4	150	4	2.0
50	Bottlebrush <i>Callistemon viminalis</i>	4	150	3	2.0
51	Not found				
52	Flame Tree <i>Brachychiton acerifolius</i>	8	230	4	2.8

Tree #	85Name86	Height m	DBH mm	Crown m	TPZ m
53	Rainforest sp	6	400	6	4.8
54	Dead				
55	Native Frangipani <i>Hymenosporum flavum</i>	4	50	1	2.0
56	Group				
57	Group				
58	Group				
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79	Group				
80	Group				
81	Group				
82	Group				
83	Bottlebrush <i>Callistemon</i> sp	8	280	4	3.4
84	Dead				

Tree #	11885Name86119	Height m	DBH mm	Crown m	TPZ m
85	Grey Gum <i>Eucalyptus propinqua</i>	15	200	2	2.4
86	Blackbutt <i>Eucalyptus pilularis</i>	15	180	2	2.2
87	Blue Quondong <i>Alaocarpus grandis</i>	16	260	8	3.1
88	Brushbox <i>Lophostemon confertus</i>	16	230	8	2.8
89	Tuckeroo <i>Cupaniopsis anacardioides</i>	6	160	4	2.0
90	Grey Gum <i>Eucalyptus propinqua</i>	20	350	10	4.2
91	Forest Red Gum <i>Eucalyptus tereticornis</i>	20	520	12	6.2
92	Flame Tree <i>Brachychiton acerifolius</i>	4	120	1	2.0
93	Dead				
94	Swamp Mahogany <i>Eucalyptus robusta</i>	10	230	6	2.8
95	Gum <i>Eucalyptus</i> sp	8	150	2	2.0
96	Gum <i>Eucalyptus</i> sp	10	200	2	2.0
97	Flooded Gum <i>Eucalyptus grandis</i>	16	260	8	3.1
98	Flooded Gum <i>Eucalyptus grandis</i>	16	290	8	3.5
99	Swamp Mahogany <i>Eucalyptus robusta</i>	14	260	6	3.1
100	Swamp Mahogany <i>Eucalyptus robusta</i>	10	160	4	2.0
101	Forest Red Gum <i>Eucalyptus tereticornis</i>	10	220	6	2.6
102	Swamp Mahogany <i>Eucalyptus robusta</i>	10	200	6	2.4
103	Forest Red Gum <i>Eucalyptus tereticornis</i>	10	200	6	2.4
104	Forest Red Gum <i>Eucalyptus tereticornis</i>	10	180	8	2.2
105	Gum <i>Eucalyptus</i> sp	8	130	3	2.0
106	Gum <i>Eucalyptus</i> sp	12	150	6	2.0
107	Gum <i>Eucalyptus</i> sp	8	200	4	2.4
108	Tuckeroo <i>Cupaniopsis anacardioides</i>	4	150	4	2.0
109	Turpentine <i>Syncarpia glomulifera</i>	10	280	6	3.4
110	Swamp Mahogany <i>Eucalyptus robusta</i>	10	260	6	3.1
111	Camphor Laurel <i>Cinnamomum camphora</i>	12	1,800	15	15.0
112	Paperbark <i>Melaleuca quinquenervia</i>	8	450	8	5.4
113	Shrub	2			
114	Shrub	2			
115	Camphor Laurel <i>Cinnamomum camphora</i>	10	980	12	11.8
116	Camphor Laurel <i>Cinnamomum camphora</i>	12	770	10	9.2

Tree #	11885Name86119	Height m	DBH mm	Crown m	TPZ m
117	Camphor Laurel <i>Cinnamomum camphora</i>	15	1,010	15	12.1
118	Camphor Laurel <i>Cinnamomum camphora</i>	15	1,000	15	12.0
119	Camphor Laurel <i>Cinnamomum camphora</i>	20	1,400	15	15.0
120	Camphor Laurel <i>Cinnamomum camphora</i>	20	1,300	15	15.0
121	Camphor Laurel <i>Cinnamomum camphora</i>	18	2,100	20	15.0
122	Camphor Laurel <i>Cinnamomum camphora</i>	18	1,700	20	15.0
123	Camphor Laurel <i>Cinnamomum camphora</i>	18	1,500	20	15.0
124	Camphor Laurel <i>Cinnamomum camphora</i>	18	1,200	20	14.4
125	Camphor Laurel <i>Cinnamomum camphora</i>	18	1230	20	14.8
126	Camphor Laurel <i>Cinnamomum camphora</i>	18	1,700	20	15.0
127	Camphor Laurel <i>Cinnamomum camphora</i>	20	3,000	25	15.0
128	Lilli Pilli <i>Syzygium</i> sp	5	250	6	3.0
129	Lilli Pilli <i>Syzygium</i> sp	5	220	7	2.6
130	Lilli Pilli <i>Syzygium</i> sp	7	200	4	2.4