Anambah Concept Development Application, Arborist Report

Prepared for Thirdi Anambah Pty Ltd
August 2024

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Anambah Concept Development Application, Arborist Report

Report Number

E240310 RP1

Client

Thirdi Anambah Pty Ltd

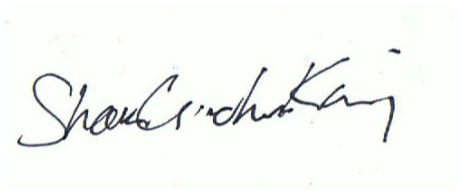
Date

29 August 2024

Version

v2 Concept application issue

Prepared by



Shaun King
Consulting Arborist
29-08-2024

his report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

Table of Contents

Appendices

Tables

Figures

1 Introduction

EMM Consulting have been engaged by Thirdi Anambah Pty Ltd to undertake an assessment of trees within the proposed Anambah Road subdivision footprint. The purpose of this is to determine which trees are retainable and those that will require removal.

The Project is for a Concept Development Application (CDA) seeking concept approval for the staged development of the concept master plan, and for which detailed proposals for the Site or for separate parts of the site are to be subject of subsequent Development Applications (DAs), apart from stage 1.

The masterplan creates a new urban subdivision within the Anambah Urban Release Area accommodating a mix of housing types with approximately 900 residential lots, and incorporates open space, roads, pedestrian networks, utilities and services, intersection upgrades and drainage infrastructure.

The application includes a development application for stage 1, which is made up of approximately 240 lots. This stage includes the subdivision of the land, construction of the lots including roads, services, bulk earth works and dedication of reserves. The application includes an intersection to provide access into the development via Anambah Road, together with an emergency flood access to be constructed via the unformed River Road.

Assessing Arborist

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Qualifications:	Diploma of Horticulture (Landscape Design)
	Diploma of Horticulture (Arboriculture) AQF 5
	Certificate No: C0045006

2 Methodology

The site was visited on the 30 May, 13 June and 23 August 2024. During the visits each tree was inspected and assessed using the following tools and criteria.

- **Visual Tree Assessment (VTA):** The VTA method developed by Matheck and Broeler, 1994 was used for each tree. Trees located on the site were inspected and assessed from the ground. The visual tree assessment included all visible above ground parts of the tree including exposed roots, Trunk, branches, and foliage. No below ground inspections or analyses was undertaken in the root zone. No internal inspections or tissue analyses were undertaken on the subject trees. No aerial inspections were undertaken.

- **Tree Retention Value (TRV):** The TRV calculation method developed by Couston, Mark and Howden, Melanie 2001 was used to assess each tree. This method determines the significance of each tree in the landscape. The significance is then measured against the ULE.

- **Useful Life Expectancy (ULE):** ULE is a measure of the tree's sustainability. It is an indication of how long a tree is expected to live under specific conditions. Appendix C provides an in-depth description of ULE.

- **Tree Protection Zone (TPZ):** The TPZ is an area around the tree that may cause damage to the tree if the soil is disturbed and/or roots are injured or severed. The method of determining the TPZ follows AS 4970 Protection of trees on development sites. Refer to Appendix D for more detail.

3 Site

The subject site is situated on 559 Anambah Road, Gosforth, Lots 177 DP 874171 and 55 DP 874170. The site has split zoning, R1 General residential and RU2 Rural Landscape. Currently the site is predominantly used for grazing cattle. Surrounding development is generally of a rural nature. Existing vegetation consists of scattered remnant trees and regrowth. The remainder of the vegetation consists of pasture. A first order stream runs through the southern portion of the site.

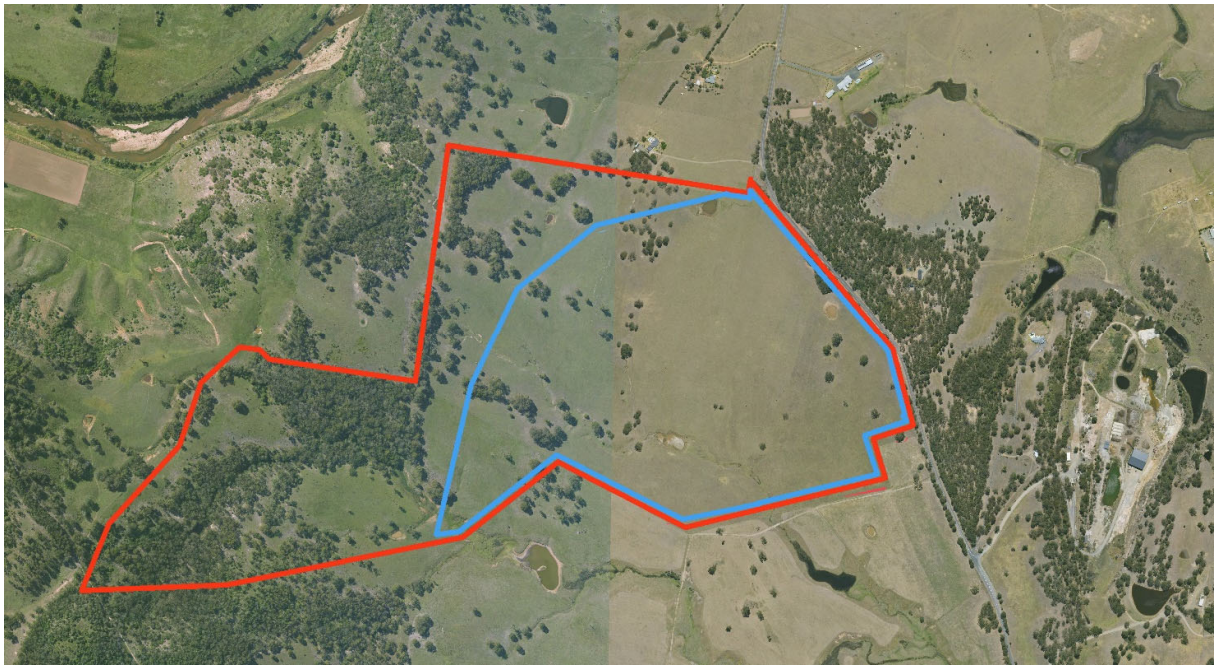

Figure 3.1 Site area outlined red. Study area/subdivision footprint outlined blue

4 Proposed Development

The proposed development consists of staged subdivision consisting of 900 lots, park/playground area, entry treatment and riparian zone treatments.

5 Tree Assessment

One hundred and fifty seven trees/groupings were assessed. Trees growing in tightly spaced groupings have been given one tree number due to the difficulty of assessing the exact locations of each tree due to the limitations of the survey data provided. The actual numbers of trees is greater than one hundred and fifty seven. Generally the groupings of trees consist of semi mature trees of good health so they have been given moderate retention values. All the assessed trees are locally occurring species and are generally scattered remnant trees left after clearing for agricultural purposes. There are some areas of regeneration within the site with numerous semi mature trees growing within some of the close groupings of mature trees. Generally the scattered remnant trees are of a low retention value with large sized dead wood and branch failures prevalent.

One hundred and four trees/groupings have a **moderate retention value**. **Forty one trees**, have a **low retention value** due to either small size, or structural and health issues. **Twelve trees**, have a **very low retention value** due to poor structure and or health or are already dead. Refer to Appendix B Tree Assessment Sheet for further detail on individual trees.

Table 4.1 Tree Retention Value Matrix

	Landscape Significance Reading						
Tree Sustainability (ULE)	1	2	3	4	5	6	7
Greater than 40 years	High Retention Value						
15-40 years			Moderate				
5-15 years				Low			
Less than 5 years					Very Low Retention Value		
Dead or hazardous							

Ref:- Modified by A Morton from Couston, Mark & Howden, Melanie (2001) Tree Retention Values Table Footprint Green Pty Ltd, Sydney Australia.

Table 4.2 Retention Value of Trees

Retention Value of Trees				
Tree No.	Species	Sustainability Period (Years)	Landscape Significance Rating	Retention Value
1	*Corymbia maculata*	5-15	4 Moderate	Low
2	*Corymbia maculata*	5-15	4 Moderate	Low
3	*Eucalyptus fibrosa*	<5	5 Low	Very Low
4	*Corymbia maculata*	5-15	4 Moderate	Low
5	*Corymbia maculata*	5-15	4 Moderate	Low
6	*Eucalyptus propinqua*	5-15	4 Moderate	Low

7	*Corymbia maculata*	5-15	4 Moderate	Low
8	*Corymbia maculata*	5-15	4 Moderate	Low
9	*Corymbia maculata*	15-40	4 Moderate	Moderate
10	*Corymbia maculata*	15-40	4 Moderate	Moderate
11	*Corymbia maculata*	15-40	4 Moderate	Moderate
12	*Corymbia maculata*	5-15	4 Moderate	Low
13	*Eucalyptus propinqua*	5-15	4 Moderate	Low
14	*Corymbia maculata*	15-40	4 Moderate	Moderate
15	*Mixed Species (Grouping)*	>40	4 Moderate	Moderate
16	*Corymbia maculata*	>40	4 Moderate	Moderate
17	*Corymbia maculata*	>40	4 Moderate	Moderate
18	*Corymbia maculata*	>40	4 Moderate	Moderate
19	*Corymbia maculata*	>40	4 Moderate	Moderate
20	*Corymbia maculata*	>40	4 Moderate	Moderate
21	*Eucalyptus fibrosa*	>40	4 Moderate	Moderate
22	*Eucalyptus propinqua*	>40	4 Moderate	Moderate
23	*Corymbia maculata*	>40	4 Moderate	Moderate
24	*Eucalyptus fibrosa*	>40	4 Moderate	Moderate
25	*Eucalyptus propinqua*	5-15	5 Low	Low
26	*Corymbia maculata*	>40	4 Moderate	Moderate
27	*Corymbia maculata*	>40	4 Moderate	Moderate
28	*Corymbia maculata*	>40	4 Moderate	Moderate
29	*Eucalyptus fibrosa*	<5	5 Low	Very Low
30	*Corymbia maculata*	>40	4 Moderate	Moderate
31	*Corymbia maculata*	>40	4 Moderate	Moderate
32	*Corymbia maculata*	15-40	5 Low	Low
33	*Corymbia maculata*	>40	4 Moderate	Moderate
34	*Corymbia maculata*	15-40	4 Moderate	Moderate
35	*Corymbia maculata*	<5	5 Low	Very Low
36	*Corymbia maculata*	15-40	5 Low	Low
37	*Corymbia maculata*	>40	4 Moderate	Moderate
39	*Corymbia maculata*	>40	4 Moderate	Moderate
40	*Corymbia maculata*	>40	4 Moderate	Moderate
41	*Eucalyptus propinqua*	<5	5 Low	Very Low
42	*Eucalyptus propinqua*	15-40	4 Moderate	Moderate
43	*Eucalyptus propinqua*	15-40	4 Moderate	Moderate
44	*Corymbia maculata*	<5	5 Low	Very Low
45	*Corymbia maculata*	<5	5 Low	Very Low
46	*Eucalyptus propinqua*	15-40	5 Low	Low
47	*Eucalyptus fibrosa*	>40	4 Moderate	Moderate
48	*Corymbia maculata*	5-15	4 Moderate	Low

49	*Eucalyptus propinqua*	15-40	4 Moderate	Moderate
50	*Eucalyptus fibrosa*	5-15	4 Moderate	Low
51	*Eucalyptus propinqua*	15-40	4 Moderate	Moderate
52	*Corymbia maculata*	>40	4 Moderate	Moderate
53	*Corymbia maculata*	<5	5 Low	Low
54	*Corymbia maculata*	>40	4 Moderate	Moderate
55	*Corymbia maculata*	>40	4 Moderate	Moderate
56	*Corymbia maculata*	>40	4 Moderate	Moderate
57	*Eucalyptus fibrosa*	<5	5 Low	Low
58	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
59	*Eucalyptus fibrosa*	5-15	5 Low	Low
60	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
61	*Eucalyptus propinqua*	5-15	5 Low	Low
62	*Eucalyptus fibrosa*	5-15	5 Low	Low
63	*Corymbia maculata*	>40	4 Moderate	Moderate
64	*Corymbia maculata*	15-40	4 Moderate	Moderate
65	*Corymbia maculata*	15-40	4 Moderate	Moderate
66	*Corymbia maculata*	>40	4 Moderate	Moderate
67	*Corymbia maculata*	15-40	5 Low	Low
68	*Eucalyptus fibrosa*	5-15	5 Low	Low
69	*Corymbia maculata*	<5	6 Very Low	Very Low
70	*Eucalyptus fibrosa*	<5	5 Low	Very Low
71	*Eucalyptus fibrosa*	15-40	5 Low	Low
72	*Eucalyptus fibrosa*	15-40	5 Low	Low
73	*Eucalyptus propinqua*	15-40	4 Moderate	Moderate
74	*Eucalyptus propinqua*	15-40	4 Moderate	Moderate
75	*Corymbia maculata*	<5	5 Low	Very Low
76	*Eucalyptus fibrosa*	>40	4 Moderate	Moderate
77	*Corymbia maculata*	15-40	4 Moderate	Low
78	*Mixed species (Grouping)*	>40	4 Moderate	Moderate
79	*Corymbia maculata*	>40	4 Moderate	Moderate
80	*Melaleuca stypheloides*	15-40	5 Low	Low
81	*Melaleuca stypheloides*	15-40	5 Low	Low
82	*Corymbia maculata*	>40	4 Moderate	Moderate
83	*Corymbia maculata*	15-40	4 Moderate	Moderate
84	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
85	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
86	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
87	*Eucalyptus fibrosa*	<5	5 Low	Very Low
88	*Corymbia maculata*	15-40	4 Moderate	Moderate
89	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate

90	*Eucalyptus fibrosa*	5-15	5 Low	Low
91	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
92	*Corymbia maculata*	15-40	4 Moderate	Moderate
93	*Melaleuca stypheloides*	5-15	5 Low	Low
94	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
95	*Eucalyptus species*	5-15	5 Low	Low
96	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
97	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
98	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
99	*Eucalyptus fibrosa*	5-15	5 Low	Low
100	*Corymbia maculata*	15-40	4 Moderate	Moderate
101	*Corymbia maculata*	5-15	5 Low	Low
102	*Eucalyptus fibrosa*	5-15	5 Low	Low
103	*Eucalyptus fibrosa*	5-15	5 Low	Low
104	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
105	*Eucalyptus fibrosa*	<5	5 Low	Very Low
106	*Corymbia maculata*	<5	6 Very Low	Very Low
107	*Corymbia maculata*	>40	5 Low	Moderate
108	*Corymbia maculata*	>40	5 Low	Moderate
109	*Corymbia maculata*	15-40	4 Moderate	Moderate
110	*Corymbia maculata*	15-40	4 Moderate	Moderate
111	*Corymbia maculata*	15-40	4 Moderate	Moderate
112	*Corymbia maculata*	>40	4 Moderate	Moderate
113	*Corymbia maculata*	15-40	4 Moderate	Moderate
114	*Melaleuca stypheloides*	15-40	5 Low	Low
115	*Corymbia maculata*	15-40	4 Moderate	Moderate
116	*Corymbia maculata*	15-40	4 Moderate	Moderate
117	*Melaleuca stypheloides*	15-40	5 Low	Low
118	*Melaleuca stypheloides*	15-40	5 Low	Low
119	*Corymbia maculata*	15-40	5 Low	Low
120	*Corymbia maculata*	15-40	4 Moderate	Moderate
121	*Corymbia maculata*	15-40	4 Moderate	Moderate
122	*Corymbia maculata*	>40	4 Moderate	Moderate
123	*Corymbia maculata*	>40	4 Moderate	Moderate
124	*Corymbia maculata*	15-40	4 Moderate	Moderate
125	*Corymbia maculata*	15-40	4 Moderate	Moderate
126	*Melaleuca stypheloides*	15-40	5 Low	Low
127	*Corymbia maculata*	15-40	4 Moderate	Moderate
128	*Corymbia maculata*	15-40	4 Moderate	Moderate
129	*Corymbia maculata*	15-40	4 Moderate	Moderate
130	*Melaleuca stypheloides*	15-40	5 Low	Low

131	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
132	*Corymbia maculata*	15-40	4 Moderate	Moderate
133	*Corymbia maculata*	15-40	4 Moderate	Moderate
134	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
135	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
136	*Corymbia maculata*	15-40	4 Moderate	Moderate
137	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
138	*Corymbia maculata*	15-40	4 Moderate	Moderate
139	*Corymbia maculata*	15-40	4 Moderate	Moderate
140	*Corymbia maculata*	15-40	4 Moderate	Moderate
141	*Corymbia maculata*	15-40	4 Moderate	Moderate
142	*Eucalyptus species*	15-40	4 Moderate	Moderate
143	*Corymbia maculata*	15-40	4 Moderate	Moderate
144	*Mixed species (Grouping)*	>40	4 Moderate	Moderate
145	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
146	*Eucalyptus fibrosa*	15-40	4 Moderate	Moderate
147	*Eucalyptus fibrosa*	<40	4 Moderate	Moderate
148	*Corymbia maculata*	<40	4 Moderate	Moderate
149	*Corymbia maculata*	15-40	4 Moderate	Moderate
150	*Corymbia maculata*	<40	4 Moderate	Moderate
151	*Corymbia maculata*	<40	4 Moderate	Moderate
152	*Corymbia maculata*	5-15	5 Low	Low
153	*Corymbia maculata*	15-40	4 Moderate	Moderate
154	*Angophora floribunda*	15-40	4 Moderate	Moderate
155	*Angophora floribunda*	15-40	4 Moderate	Moderate
156	*Corymbia maculata*	15-40	4 Moderate	Moderate
157	*Corymbia maculata*	15-40	4 Moderate	Moderate

6 Impacts of Development

The proposed subdivision will require the removal of most trees located within its footprint due to the re-grading of the site for lots, roads and storm water infrastructure within the riparian zone. A small number trees located outside of the property boundary along Anambah Road will also require removal due to road widening for slip lanes near the subdivision entry. Several assessed trees located outside of the footprint are retainable and will require adequate protection in accordance with AS4970 protection of trees on development sites.

Tree removal within R1 zoned land.

Approximately 144 trees. 114 of moderate retention value, 22 of low retention value and 8 of very low retention value.

Tree removal outside of the development footprint RU2 zoned land, (Anambah Road reserve road widening)

Approximately twelve trees. 11 of moderate retention value and 1 of low retention value.

7 Recommendations

- Mulch won from the removed trees to be used within the onsite landscaping.
- Prior to removal of trees with hollows an ecologist is to assess the hollows for any habitation.
- Hollows and hollow sections of logs to be used within the riparian area to provide habitat.
- Tree removal adjacent to trees to be retained are to be dismantled rather than cleared with earth moving equipment so that roots of retained trees are not compromised.
- Any retainable trees to be protected in accordance with AS 4970 Protection of trees on development sites. This includes but not limited to,

  (a) excavation for silt fencing;
  (b) cultivation;
  (c) storage;
  (d) preparation of chemicals, including preparation of cement products;
  (e) parking of vehicles and plant;
  (f) refuelling;
  (g) dumping of waste;
  (h) wash down and cleaning of equipment;
  (i) placement of fill;
  (j) lighting of fires;
  (k) soil level changes;
  (l) physical damage to the tree.

8 Bibliography

Barrell, J. [Modified]	Pre-Development Tree Assessment, (in Watson/Neely 1995)
Couston, Mark & Howden, Melanie Australia 2001.	Tree Retention Values Table. Footprint Green Pty Ltd, Sydney
Link Tree System Ltd. Barrell, J.	Arboricultural Journal 1993, Vol. 17pp. 33-46, 01/03/98
Standards Australia	Australian Standard AS 4970 Protection of Trees on Development Sites. (September 2009)

9 Site Images

Photograph 9.1 **Large scattered remnant trees typical of much of the site**

Photograph 9.2 Areas of generation within the site.

Photograph 9.3 Areas of generation within the site.

Photograph 9.4 Branch failures and signs of decline typical of the scattered remnant trees.

Appendix A Site Plans and Tree Protection Measures

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Revisions		
Issue	Details	Date
A	Draft Issue	22.08.24
B	Concept Application	29.08.24

Client:
Thirdi Anambah Pty Ltd

Project:
Anambah Concept Development Application

Title:

Overall Site Plan

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
Job No: E240310
Revision: B
Sheet: Arb01

Matchline: see Sheet L05 for continuation

Matchline: see Sheet L06 for continuation

Matchline: see Sheet L03 for continuation

TREE RETENTION VALUE

- High Retention Value
- Moderate Retention Value
- Low Retention Value
- Very Low Retention Value
- Tree to be removed
- Protective fencing

Note: radius of trees indicates the Tree Protection Zone calculated in accordance with AS4970 Protection of trees on development sites.

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B	Concept Application	29.08.24

Client:
Thirdi Anambah Pty Ltd

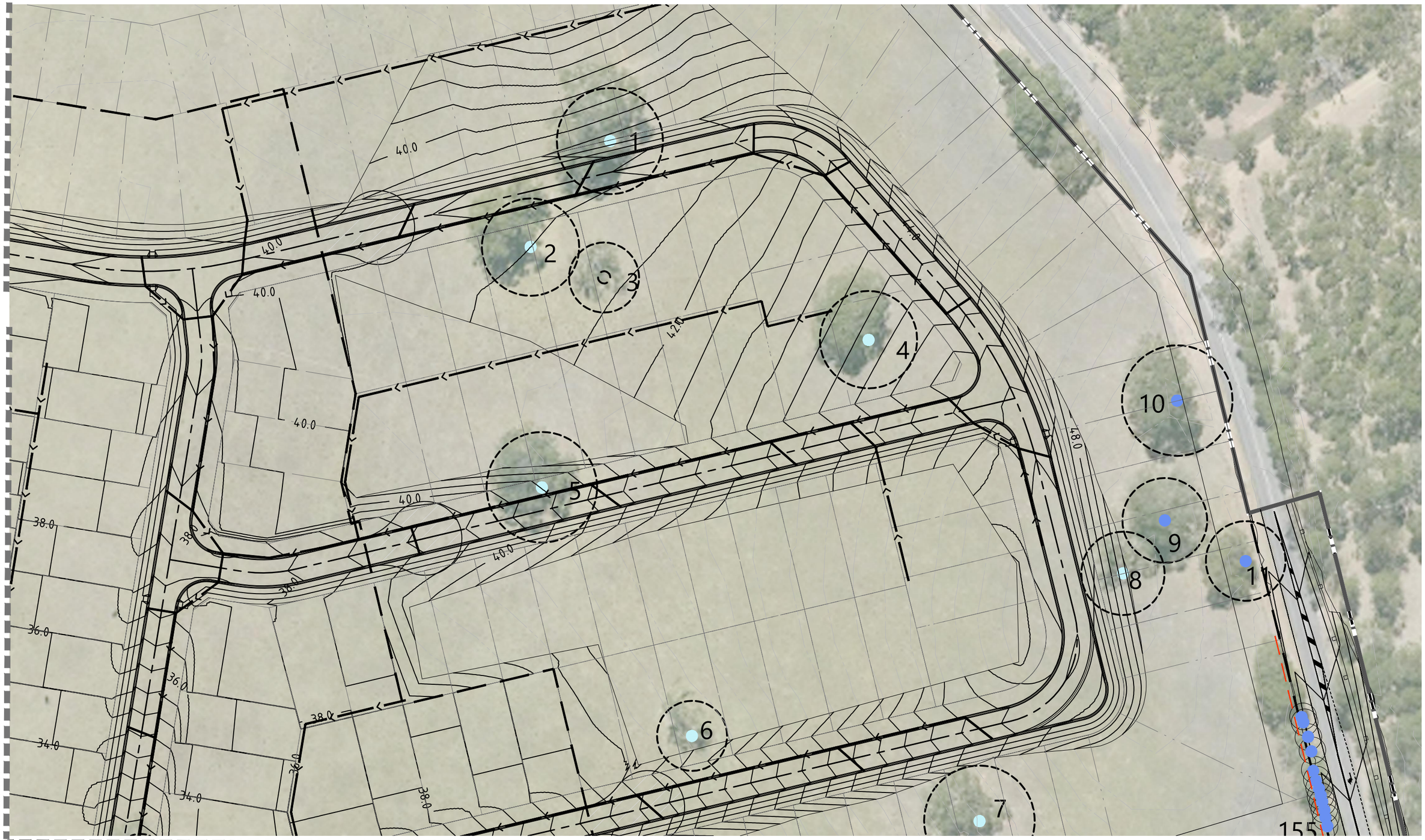
Project:
Anambah Concept Development Application

Title:
Site Plan

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
Job No: E240310
Revision: B
Sheet: Arb02

Matchline: see Sheet L06 for continuation



Matchline: see Sheet L07 for continuation

Matchline: see Sheet L04 for continuation

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Project:
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Site Plan

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
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Revision: B
Sheet: Arb03

Matchline: see Sheet L07 for continuation

Matchline: see Sheet L08 for continuation

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Site Plan

Site: 559 Anambah Road, Gosforth

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Site Plan

Site: 559 Anambah Road, Gosforth

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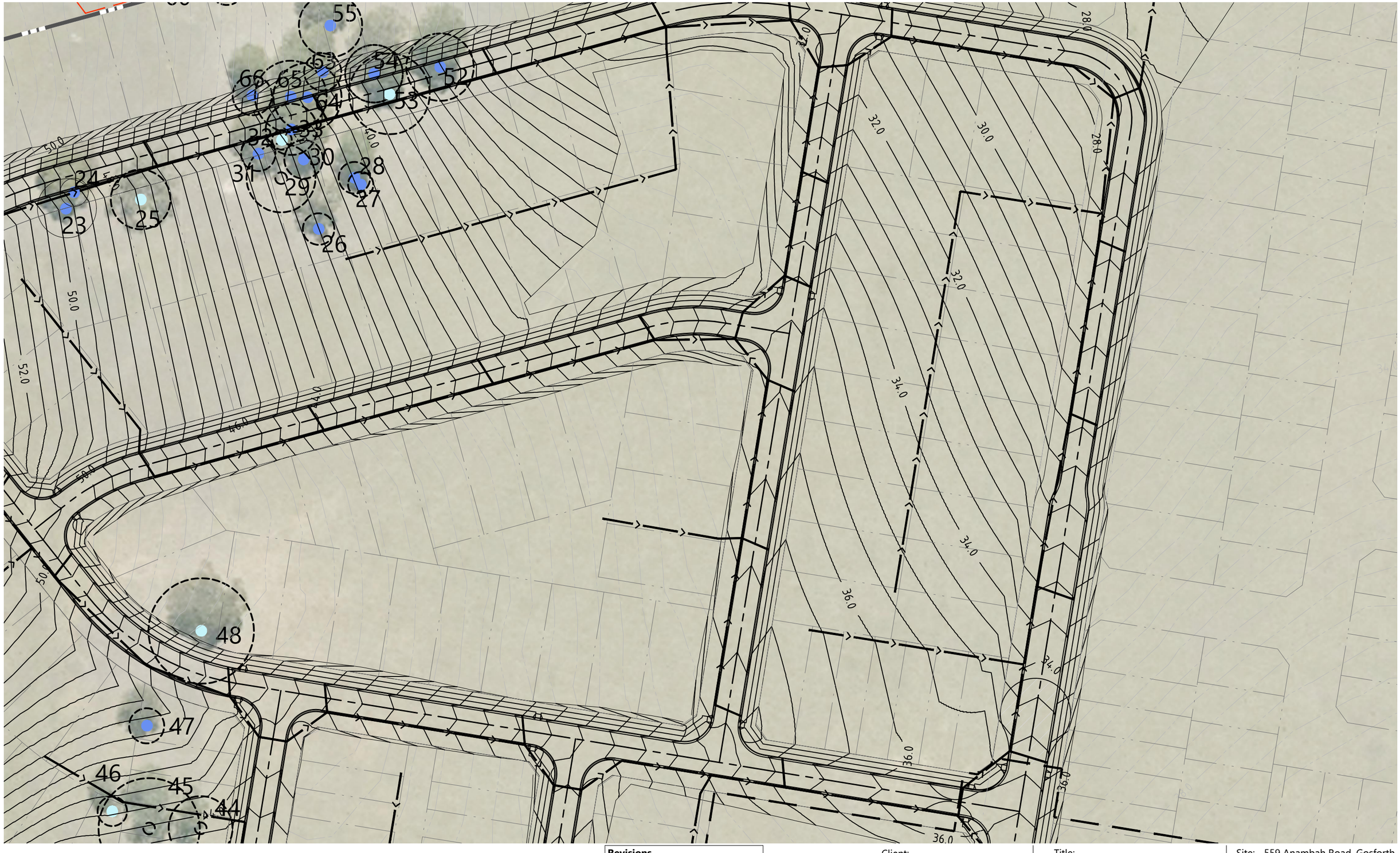
Revision: B
Sheet: Arb05



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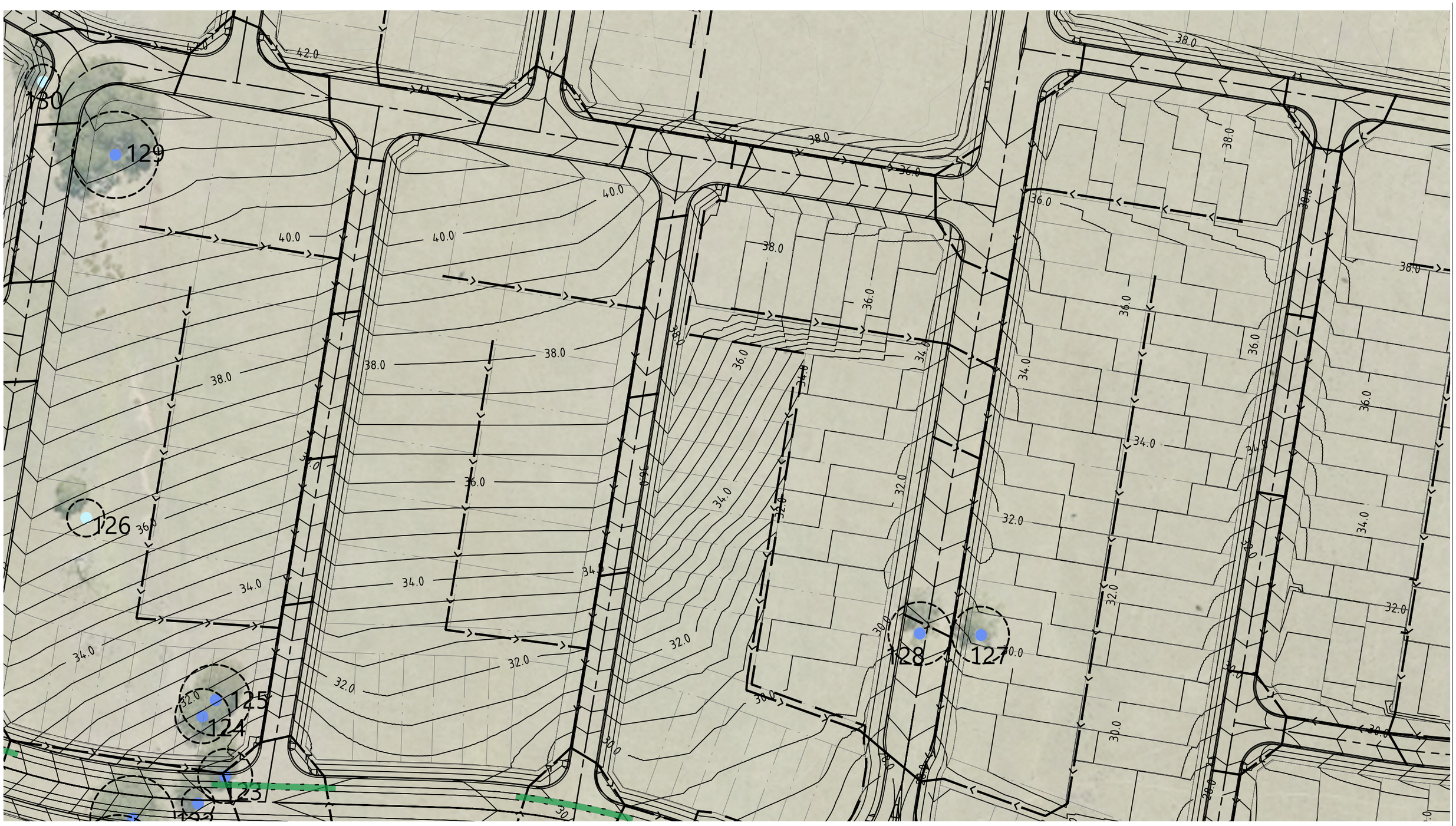
Site Plan

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
Job No: E240310
Revision: B
Sheet: Arb06



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Revision: B
Sheet: Arb07

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Site Plan

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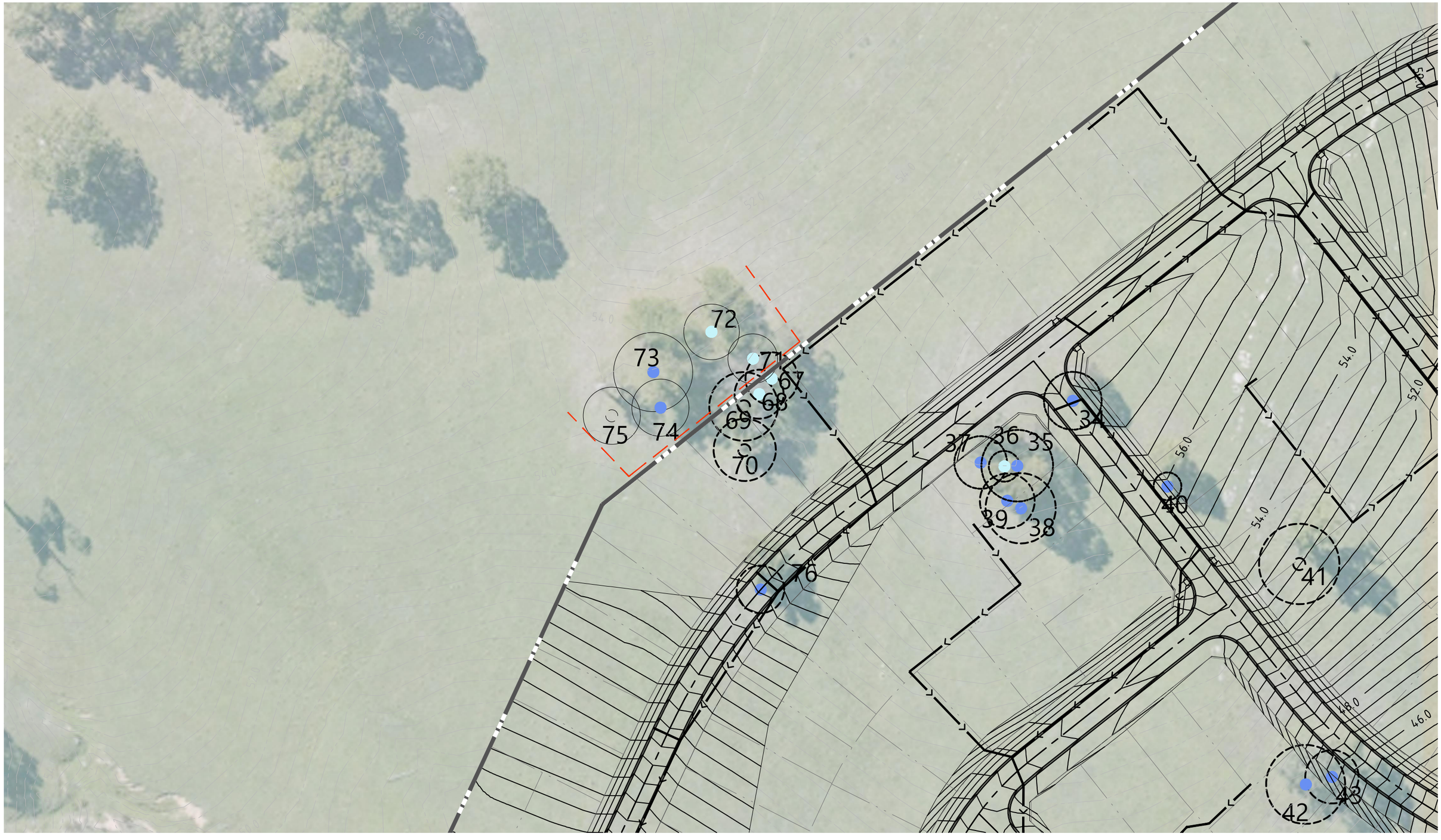
Job No: E240310
Revision: B
Sheet: L08



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Revisions		
Issue	Details	Date
A	Draft Issue	22.08.24
B	Concept Application	29.08.24

Client:
Thirdi Anambah Pty Ltd

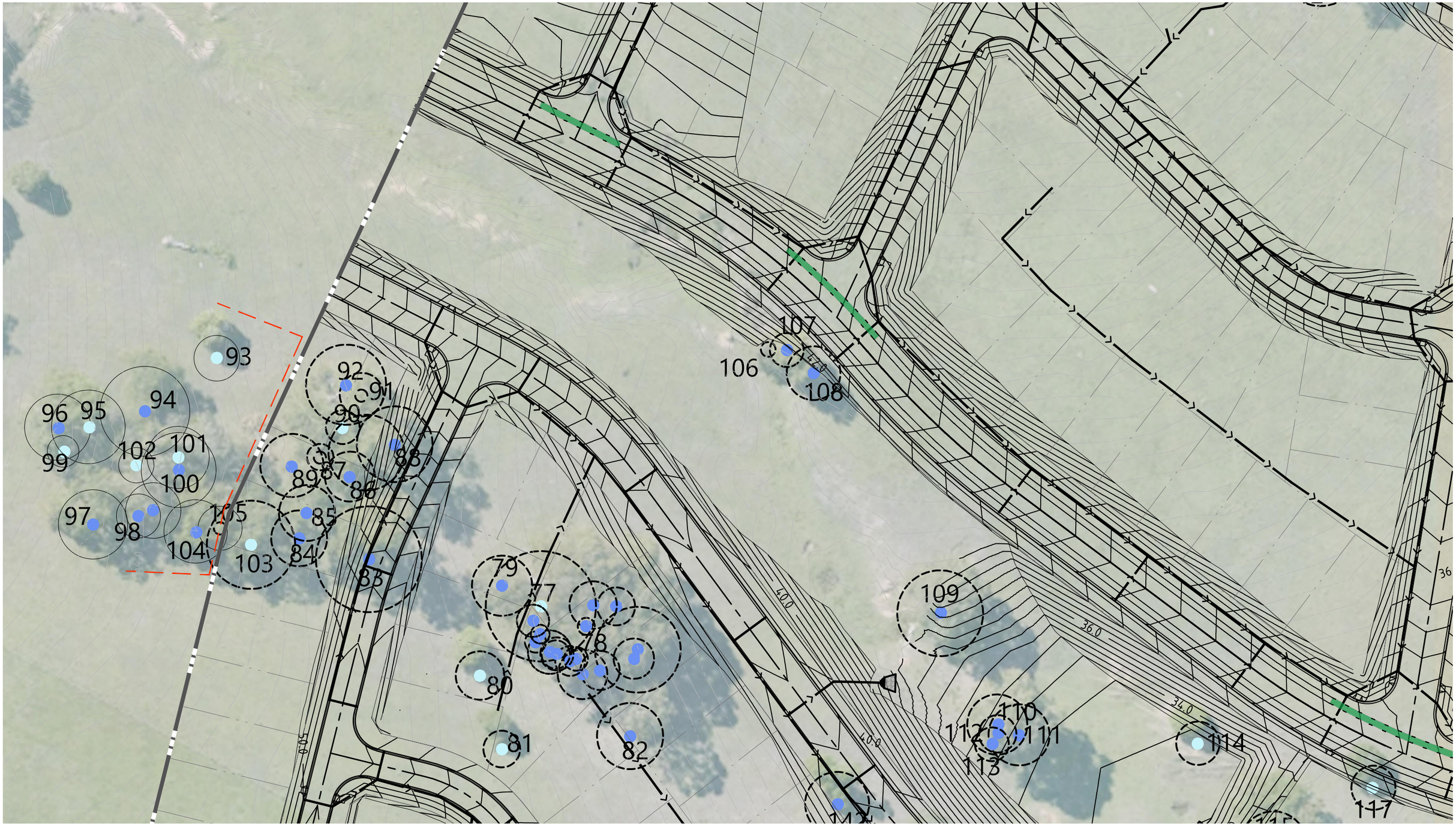
Project:
Anambah Concept Development Application

Title:

Site Plan

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
Job No: E240310
Revision: B
Sheet: L09



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Revisions		
Issue	Details	Date
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Client:
Thirdi Anambah Pty Ltd

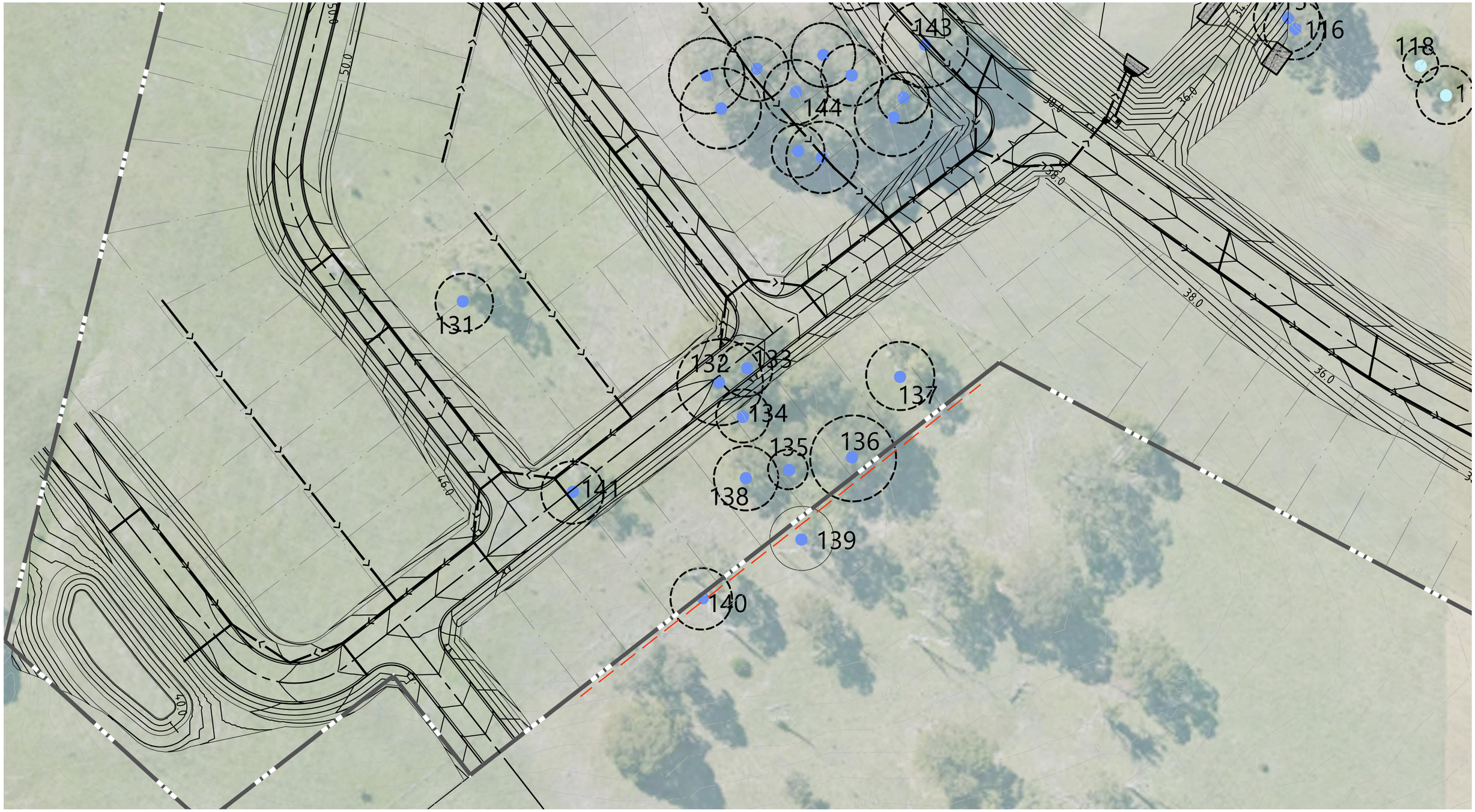
Project:
Anambah Concept Development Application

Title:

Site Plan

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
Job No: E240310
Revision: B
Sheet: L10



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Revisions		
Issue	Details	Date
A	Draft Issue	22.08.24
B	Concept Application	29.08.24

Client:
Thirdi Anambah Pty Ltd

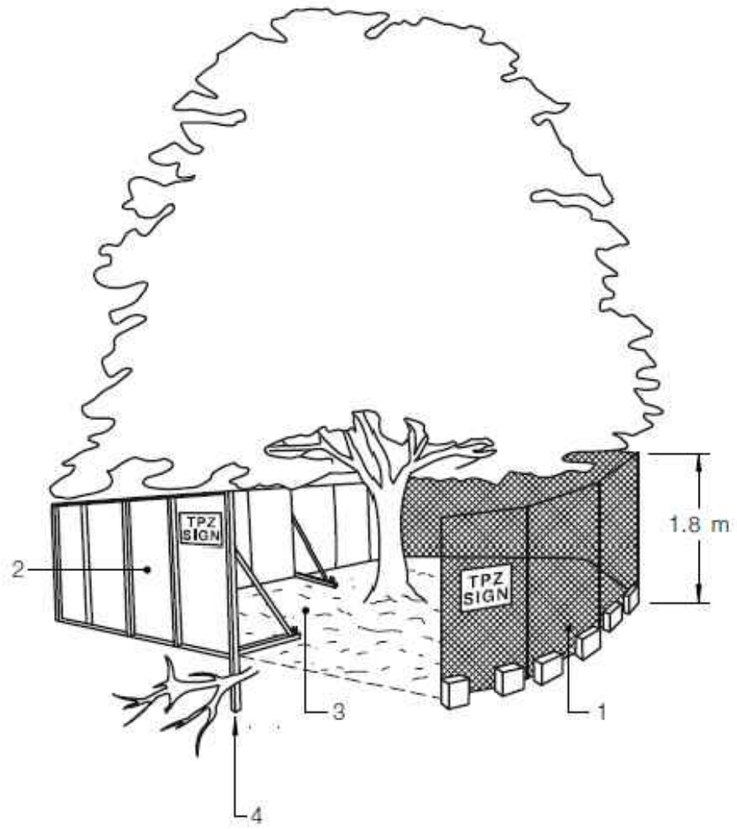
Project:
Anambah Concept Development Application

Title:

Site Plan

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
Job No: E240310
Revision: B
Sheet: L11



LEGEND:

1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2 Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

FIGURE 3 PROTECTIVE FENCING

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Revisions		
Issue	Details	Date
A	Draft Issue	22.08.24
B	Concept Application	29.08.24

Client:
Thirdi Anambah Pty Ltd

Project:
Anambah Concept Development Application

Title:
Tree Protection Details

Site: 559 Anambah Road, Gosforth

Date: 29 August 2024
Job No: E240310
Revision: B
Sheet: L12

Appendix B

Tree Assessment Sheets

Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)		TPZ (M)		Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes
1	*Corymbia maculata*	Spotted Gum	1200		14.4		22	10	10	8	12	A	F	M	M	3D	L	Large hollows and dead wood present. A number of past large branch failures evident.
2	*Corymbia maculata*	Spotted Gum	1100		13.2		22	8	12	5	10	A	F	M	M	3D	L	Large sized dead wood and large past branch failures evident.
3	*Eucalyptus fibrosa*	Broad Leaved Ironbark	790		9.5		17	1	4	4	8	P	P	M	L	4C	VL	Decay in trunk
4	*Corymbia maculata*	Spotted Gum	1100		13.2		20	11	9	9	10	F	F	M	M	3D	L	Large wound to base of trunk. Lot of dead wood.
5	*Corymbia maculata*	Spotted Gum	1400		15		20	10	10	10	10	F	F	M	M	3D	L	Dead wood and twiggy die back.
6	*Eucalyptus propinqua*	Grey Gum	790		9.5		19	4	7	5	7	F	F	M	M	3D	L	Epicormic growth, large sized dead wood and evidence of past large branch failures.
7	*Corymbia maculata*	Spotted Gum	1400		15		17	7	7	7	7	F	F	M	M	3D	L	Dead wood and large wound and decay in base of trunk.
8	*Corymbia maculata*	Spotted Gum	940		11.3		22	8	8	4	6	F	F	M	M	3D	L	Large hollow and possible associated trunk decay.
9	*Corymbia maculata*	Spotted Gum	960		11.5		21	11	11	6	6	A	M	M	M	2D	M	Moderately sized dead wood.
10	*Corymbia maculata*	Spotted Gum	1350		15		22	9	10	8	10	A	A	M	M	2D	M	Moderately sized dead wood.
11	*Corymbia maculata*	Spotted Gum	900		10.8		18	7	7	7	7	A	A	M	M	2D	M	
12	*Corymbia maculata*	Spotted Gum	1200		14.4		20	12	9	10	6	A	F	M	M	3D	L	Large branch failures and moderately sized dead wood.
13	*Eucalyptus propinqua*	Grey Gum	560		6.7		17	9	8	6	6	F	F	M	M	3D	L	Twiggy die back.
14	*Corymbia maculata*	Spotted Gum	700		8.4		19	7	7	7	7	A	A	M	M	2A	M	
15	*Mixed species*	Gums	350 to 100				7-18					A	A	M	M	1A	M	Grouping of closely spaced semi mature to mature trees of good health. Approximately 40 trees
16	*Corymbia maculata*	Spotted Gum	610		7.3		22	6	6	6	6	A	A	M	M	1A	M	Located on western edge of Group 15
17	*Corymbia maculata*	Spotted Gum	500		6		20	4	6	7	4	A	A	M	M	1A	M	Located on western edge of Group 15
18	*Corymbia maculata*	Spotted Gum	410		4.9		20	3	6	5	3	A	A	M	M	1A	M	Located on western edge of Group 15
19	*Corymbia maculata*	Spotted Gum	400		4.8		18	1	5	4	5	A	A	M	M	1A	M	Located on western edge of Group 15
20	*Corymbia maculata*	Spotted Gum	360		4.3		14	2	2	5	6	A	A	M	M	1A	M	Located on western edge of Group 15
21	*Eucalyptus fibrosa*	Broad Leaved Ironbark	310		4.3		17	5	5	5	5	A	A	M	M	1A	M	Located on western edge of Group 15.

LEGEND

DBH – Diameter at Breast Height (1.4m)
* DBH estimated due to access restrictions

DRB– Diameter Above Root Buttress

TPZ - Tree Protection Zone 12xDBH

SRZ – Structural Root Zone $(DRB \times 50)^{0.42} \times 0.64$

Health
P-Poor
F-Fair
A-Average
E-Excellent

Structure
P-Poor
F-Fair
A-Average
E-Excellent

Age Class
I-Immature – Recently Planted or Sapling Growth
SM-Semi Mature - <20% life expectancy
M-Mature – 20-80% life expectancy
OM-Over Mature/Senescent >80% life expectancy

LS – Landscape Significance
S-Significant
VH-Very High
H-High
M-Moderate
L-Low
VL-Very Low
I-Insignificant

ULE – Useful Life Expectancy (Sustainability in years)
Refer to appendices for more detailed explanation
1->40
2-15-40
3-5-15
4-<5

RV – Retention Value
H-High
M-Moderate
L-Low
VL-Very Low

Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)		TPZ (M)		Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes
			300															Codominant trunks.
22	*Eucalyptus propinqua*	Grey Gum	420 330		5.3		17	3	4	7	8	A	A	M	M	1A	M	Located on western edge of Group 15. Codominant trunks from ground level.
23	*Corymbia maculata*	Spotted Gum	700		8.4		17	6	6	6	6	A	A	M	M	1A	M	
24	*Eucalyptus fibrosa*	Broad Leaved Ironbark	340		4		16	7	6	4	7	A	A	M	M	1A	M	
25	*Eucalyptus propinqua*	Grey Gum	710		8.5		17	9	8	6	4	F	F	M	L	3D	L	Wounding to trunk, Sparse foliage, dead wood and die back.
26	*Corymbia maculata*	Spotted Gum	380		4.5		17	4	4	4	4	A	A	M	M	1A	M	
27	*Corymbia maculata*	Spotted Gum	300		3.6		18	4	4	4	4	A	A	M	M	1A	M	
28	*Corymbia maculata*	Spotted Gum	380		4.5		16	4	4	4	4	A	A	M	M	1A	M	
29	*Eucalyptus fibrosa*	Broad Leaved Ironbark	820		9.8		19	8	4	2	7	P	P	OM	L	4C	VL	Large amount of decay, dead wood and hollows present
30	*Corymbia maculata*	Spotted Gum	460		5.5		20	6	6	3	3	A	A	M	M	1A	M	
31	*Corymbia maculata*	Spotted Gum	410		4.9		20	3	5	6	7	A	A	M	M	1A	M	
32	*Corymbia maculata*	Spotted Gum	180 220		2.8		17	1	1	3	3	F	F	M	L	2A	L	Suppressed by surrounding trees.
33	*Corymbia maculata*	Spotted Gum	610		7.3		20	6	8	8	4	A	A	M	M	1A	M	
34	*Corymbia maculata*	Spotted Gum	660		7.9		17	6	6	6	6	A	F	M	M	2D	M	Partially fractured branch and wounding to trunk.
35	*Corymbia maculata*	Spotted Gum	820		9.8		20	5	5	5	5	A	P	M	L	4C	VL	Trunk failure and hollow. Possible associated decay.
36	*Corymbia maculata*	Spotted Gum	350		4.2		17	2	4	2	2	F	F	M	L	2A	L	Suppressed by surrounding trees.
37	*Corymbia maculata*	Spotted Gum	600		7.2		18	6	6	6	6	A	A	M	M	1A	M	
38	*Corymbia maculata*	Spotted Gum	800		9.6		16	3	3	4	4	A	A	M	M	1A	M	
39	*Corymbia maculata*	Spotted Gum	630		7.5		20	5	5	6	4	A	A	M	M	1A	M	
40	*Corymbia maculata*	Spotted Gum	320		3.8		16	4	4	4	4	A	A	M	M	1A	M	
41	*Eucalyptus propinqua*	Grey Gum	920		11		19	8	5	3	6	P	P	OM	L	4A	VL	Foliage consists entirely of epicormic growth. Large past trunk failure and large sized dead wood.

LEGEND

DBH – Diameter at Breast Height (1.4m)
* DBH estimated due to access restrictions

DRB– Diameter Above Root Buttress

TPZ - Tree Protection Zone
12xDBH

SRZ – Structural Root Zone
$(DRB \times 50)^{0.42} \times 0.64$

Health
P-Poor
F-Fair
A-Average
E-Excellent

Structure
P-Poor
F-Fair
A-Average
E-Excellent

Age Class
I-Immature – Recently Planted or Sapling Growth
SM-Semi Mature - <20% life expectancy
M-Mature – 20-80% life expectancy
OM-Over Mature/Senescent >80% life expectancy

LS – Landscape Significance
S-Significant
VH-Very High
H-High
M-Moderate
L-Low
VL-Very Low
I-Insignificant

ULE – Useful Life Expectancy
(Sustainability in years)
Refer to appendices for more detailed explanation
1->40
2-15-40
3-5-15
4-<5

RV – Retention Value
H-High
M-Moderate
L-Low
VL-Very Low

Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)	TPZ (M)	Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes
42	*Eucalyptus propinqua*	Grey Gum	900	10.8	19	6	5	5	7	A	A	M	M	2D	M	Dead wood.
43	*Eucalyptus propinqua*	Grey Gum	610	7.3	19	6	8	6	4	F	F	M	M	2D	M	Dead wood and past large branch failures.
44	*Corymbia maculata*	Spotted Gum	760	9.1	17	3	3	3	3	P	P	0M	L	4C	VL	Large trunk failure, decay in lower trunk and dead wood.
45	*Corymbia maculata*	Spotted Gum	1200	14.4	18	7	6	6	6	F	P	M	L	4C	VL	Large dead co-dominant leader.
46	*Eucalyptus propinqua*	Grey Gum	350	4.2	15	5	3	3	5	F	F	M	L	2A	L	
47	*Eucalyptus fibrosa*	Broad Leaved Ironbark	420	5	17	5	5	5	5	A	A	M	M	1A	M	
48	*Corymbia maculata*	Spotted Gum	1260	15	19	7	7	7	7	F	F	M	M	3D	L	Past large branch failure and hollow.
49	*Eucalyptus propinqua*	Grey Gum	490	5.9	16	6	7	8	8	A	A	M	M	2D	M	Minor dead wood.
50	*Eucalyptus fibrosa*	Broad Leaved Ironbark	280 120	3.7	16	5	4	1	4	P	F	M	L	3D	L	Sparsely foliaged and epicormic growth.
51	*Eucalyptus propinqua*	Grey Gum	800	9.6	18	8	7	6	7	A	A	M	M	2D	M	
52	*Corymbia maculata*	Spotted Gum	800	9.6	20	12	9	12	12	A	A	M	M	1A	M	
53	*Corymbia maculata*	Spotted Gum	960	11.5	20	14	12	13	12	P	P	M	L	4A	L	Very sparsely foliaged, large sized dead wood.
54	*Corymbia maculata*	Spotted Gum	680	8.2	20	11	9	8	6	A	A	M	M	1A	M	Minor dead wood.
55	*Corymbia maculata*	Spotted Gum	420 620	9	19	9	8	8	10	A	A	M	M	1A	M	Codominant trunks.
56	*Corymbia maculata*	Spotted Gum	470	5.6	20	8	8	7	8	A	A	M	M	1A	M	
57	*Eucalyptus fibrosa*	Broad Leaved Ironbark	500	6	21	10	9	6	4	P	F	M	L	4A	L	Sparse foliage consisting mainly of epicormic growth.
58	*Eucalyptus fibrosa*	Broad Leaved Ironbark	420	5	20	8	9	7	10	F	F	M	M	2D	M	
59	*Eucalyptus fibrosa*	Broad Leaved Ironbark	390	4.7	21	6	4	7	5	F	F	M	L	3A	L	Sparsely foliaged.
60	*Eucalyptus fibrosa*	Broad Leaved Ironbark	410	4.9	20	9	9	10	10	A	A	M	M	2D	M	Minor dead wood.
61	*Eucalyptus propinqua*	Grey Gum	700	8.6	17	12	13	11	9	A	F	M	L	3D	L	Large area of decay in base of trunk.
62	*Eucalyptus fibrosa*	Broad Leaved Ironbark	300	3.6	15	12	9	8	7	P	A	M	L	3D	L	Very sparsely foliaged.
63	*Corymbia maculata*	Spotted Gum	440	5.3	18	8	5	6	7	A	A	M	M	1A	M	
64	*Corymbia maculata*	Spotted Gum	810	9.7	20	11	10	3	10	A	A	M	M	2D	M	Small hollow.
65	*Corymbia maculata*	Spotted Gum	850	10.2	22	9	12	9	8	A	A	M	M	2D	M	Minor dead wood.

LEGEND

DBH – Diameter at Breast Height
(1.4m)
* DBH estimated due to access restrictions

DRB– Diameter Above Root Buttress

TPZ - Tree Protection Zone
12xDBH

SRZ – Structural Root Zone
$(DRB \times 50)^{0.42} \times 0.64$

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E-Excellent

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(Sustainability in years)
Refer to appendices for more detailed explanation
1->40
2-15-40
3-5-15
4-<5

RV – Retention Value
H-High
M-Moderate
L-Low
VL-Very Low

Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)		TPZ (M)		Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes
66	*Corymbia maculata*	Spotted Gum	470		5.6		21	8	7	7	9	A	A	M	M	1A	M	
67	*Corymbia maculata*	Spotted Gum	600		7.2		17	9	8	2	8	A	F	M	L	2D	L	Asymmetric canopy and branch failure.
68	*Eucalyptus fibrosa*	Broad Leaved Ironbark	560		6.7		17	11	5	3	5	F	A	M	L	3D	L	Large sized dead wood.
69	*Corymbia maculata*	Spotted Gum													VL	4A	VL	Dead tree.
70	*Eucalyptus fibrosa*	Broad Leaved Ironbark	720		8.6		18	6	10	10	9	P	P	M	L	4A	VL	Epicormic growth and lots of dead branches.
71	*Eucalyptus fibrosa*	Broad Leaved Ironbark	570		6.8		17	8	5	7	0	F	F	M	L	3D	L	Lot of canopy dieback and dead wood.
72	*Eucalyptus fibrosa*	Broad Leaved Ironbark	630		7.6		18	8	7	8	9	F	F	M	L	3D	L	Lot of large sized dead wood.
73	*Eucalyptus propinqua*	Grey Gum	900		10.8		19	9	4	7	8	A	F	M	M	2D	M	Large sized dead wood.
74	*Eucalyptus propinqua*	Grey Gum	650		7.8		19	8	7	9	8	A	F	M	M	2D	M	Large sized dead wood.
75	*Corymbia maculata*	Spotted Gum	650		7.8		16	7	4	3	7	P	P	M	L	4A	VL	Sparse foliage, epicormic growth, Large sized dead wood and trunk failure.
76	*Eucalyptus fibrosa*	Broad Leaved Ironbark	540		6.5		18	8	8	5	7	A	A	M	M	1A	M	
77	*Corymbia maculata*	Spotted Gum	1300		15		25	10	8	10	5	F	F	OM	M	3D	L	Senescent tree with large sized dead wood and hollows.
78	*Corymbia maculata*	Spotted Gum	850 to 100				7-18					A	A	SM-M	M	1A	M	Grouping of closely spaced semi mature to mature trees of good health apart from one tree with *Phellinus sp.* Approximately 30 trees
79	*Corymbia maculata*	Spotted Gum	680		8.2		19	8	4	10	10	A	A	M	M	1A	M	Minor dead wood.
80	*Melaleuca stypheloides*	Prickly Leaved Paperbark	400 380		6.6		9	4	4	4	4	A	A	M	L	2A	L	
81	*Melaleuca stypheloides*	Prickly Leaved Paperbark	420		5		8	4	4	4	4	A	A	M	L	2A	L	
82	*Corymbia maculata*	Spotted Gum	750		9		19	8	8	8	8	A	A	M	M	1A	M	
83	*Corymbia maculata*	Spotted Gum	1200		14.4		25	12	9	13	13	A	A	M	M	2D	M	Hollows and large sized dead wood.
84	*Eucalyptus fibrosa*	Broad Leaved Ironbark	630		7.6		22	5	8	7	8	A	A	M	M	2D	M	Branch failure and dead wood.
85	*Eucalyptus fibrosa*	Broad Leaved Ironbark	620		7.4		21	7	5	7	8	A	A	M	M	2D	M	
86	*Eucalyptus fibrosa*	Broad Leaved Ironbark	570		6.8		20	4	6	7	6	A	A	M	M	2D	M	Dead wood.
87	*Eucalyptus fibrosa*	Broad Leaved Ironbark	300		3.6		15	7	3	3	2	P	P	M	L	4A	VL	Suppressed tree with canopy dieback and trunk failure.

LEGEND

DBH – Diameter at Breast Height (1.4m)
* DBH estimated due to access restrictions

DRB– Diameter Above Root Buttress

TPZ - Tree Protection Zone 12xDBH

SRZ – Structural Root Zone $(DRB \times 50)^{0.42} \times 0.64$

Health
P-Poor
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Refer to appendices for more detailed explanation
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RV – Retention Value
H-High
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Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)		TPZ (M)		Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes
88	*Corymbia maculata*	Spotted Gum	860		10.3		23	18	18	10	10	A	A	M	M	2D	M	Large sized dead wood.
89	*Eucalyptus fibrosa*	Broad Leaved Ironbark	720		8.6		17	11	8	12	6	A	A	M	M	2D	M	Dead wood.
90	*Eucalyptus fibrosa*	Broad Leaved Ironbark	380		4.6		10	6	2	2	4	F	F	M	L	3D	L	Suppressed tree.
91	*Eucalyptus fibrosa*	Broad Leaved Ironbark													VL	4A	VL	Dead tree.
92	*Corymbia maculata*	Spotted Gum	906		10.9		20	10	7	7	8	A	A	M	M	2A	M	
93	*Melaleuca stypheloides*	Prickly Leaved Paperbark	300 420		6.2		9	4	4	4	4	A	F	M	L	3D	L	Dead trunk.
94	*Eucalyptus fibrosa*	Broad Leaved Ironbark	720 720		12.2		19	10	6	8	8	A	A	M	M	2A	M	Codominant trunks.
95	*Eucalyptus species*	Stringy Bark	830		10		19	7	7	6	8	A	F	M	L	3D	L	Large branch failure with decay behind in trunk.
96	*Eucalyptus fibrosa*	Broad Leaved Ironbark	750		9		17	3	7	8	8	F	F	M	M	2A	M	
97	*Eucalyptus fibrosa*	Broad Leaved Ironbark	780		9.4		17	8	8	8	8	A	A	M	M	2D	M	Large dead wood.
98	*Eucalyptus fibrosa*	Broad Leaved Ironbark	500		6		16	3	6	8	6	A	A	M	M	2D	M	
99	*Eucalyptus fibrosa*	Broad Leaved Ironbark	360		4.3		16	3	2	3	6	F	F	M	L	3A	L	Suppressed tree.
100	*Corymbia maculata*	Spotted Gum	850		10.2		23	6	6	9	12	A	A	M	M	2D	M	Large sized dead wood.
101	*Corymbia maculata*	Spotted Gum	900		10.8		21	8	3	5	8	F	F	M	L	3D	L	Large sized dead wood and storm damage.
102	*Eucalyptus fibrosa*	Broad Leaved Ironbark	400		4.8		12	10	3	2	9	F	F	M	L	3A	L	Suppressed tree.
103	*Eucalyptus fibrosa*	Broad Leaved Ironbark	1000		12		19	12	12	12	9	F	F	M	L	3D	L	Large amount of dead wood.
104	*Eucalyptus fibrosa*	Broad Leaved Ironbark	720		8.6		18	11	12	12	10	A	A	M	M	2A	M	
105	*Eucalyptus fibrosa*	Broad Leaved Ironbark	500		6		16	7	2	1	5	P	P	M	L	4A	VL	Epicormic growth, dieback and dead wood.
106	*Corymbia maculata*	Spotted Gum	120 120		2		8	2	2	2	2	P	P	SM	VL	4A	VL	Regrowth from trunk of fallen tree.
107	*Corymbia maculata*	Spotted Gum	380		4.6		15	3	3	3	3	A	A	SM	L	1A	M	
108	*Corymbia maculata*	Spotted Gum					15	3	3	3	3	A	A	SM	L	1A	M	
109	*Corymbia maculata*	Spotted Gum	960		11.5		22	10	11	13	9	A	A	M	M	2A	M	
110	*Corymbia maculata*	Spotted Gum	670		8.1		17	6	7	8	6	A	A	M	M	2D	M	Moderate Dead wood
111	*Corymbia maculata*	Spotted Gum	680		8.1		18	7	9	8	5	A	A	M	M	2A	M	Minor dead wood

LEGEND

DBH – Diameter at Breast Height (1.4m)
* DBH estimated due to access restrictions

DRB– Diameter Above Root Buttress

TPZ - Tree Protection Zone 12xDBH

SRZ – Structural Root Zone $(DRB \times 50)^{0.42} \times 0.64$

Health
P-Poor
F-Fair
A-Average
E-Excellent

Structure
P-Poor
F-Fair
A-Average
E-Excellent

Age Class
I-Immature – Recently Planted or Sapling Growth
SM-Semi Mature - <20% life expectancy
M-Mature – 20-80% life expectancy
OM-Over Mature/Senescent >80% life expectancy

LS – Landscape Significance
S-Significant
VH-Very High
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ULE – Useful Life Expectancy (Sustainability in years)
Refer to appendices for more detailed explanation
1->40
2-15-40
3-5-15
4-<5

RV – Retention Value
H-High
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Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)		TPZ (M)		Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes
112	*Corymbia maculata*	Spotted Gum	380		4.6		16	6	8	5	4	A	A	A	M	1A	M	Healthy tree
113	*Corymbia maculata*	Spotted Gum	430		5.1		15	6	5	4	5	A	A	M	M	2A	M	Minor dead wood
114	*Melaleuca stypheloides*	Prickly Leaved Paperbark	420		5		8	4	4	4	4	A	A	M	L	2A	L	
115	*Corymbia maculata*	Spotted Gum	750		9		17	10	9	6	7	A	F	M	M	2D	M	Moderate sized dead wood
116	*Corymbia maculata*	Spotted Gum	680		8.2		19	8	7	8	6A	A	A	M	M	2A	M	
117	*Melaleuca stypheloides*	Prickly Leaved Paperbark	500		6		8	5	5	5	5	A	A	M	L	2A	L	
118	*Melaleuca stypheloides*	Prickly Leaved Paperbark	400		4.8		8	4	4	4	4	A	A	M	L	2A	L	
119	*Corymbia maculata*	Spotted Gum	660		7.9		18	7	8	8	6	A	F	M	M	3D	L	Sparse canopy and moderate dead wood
120	*Corymbia maculata*	Spotted Gum	980		11.8		19	7	9	10	7	A	A	M	M	2A	M	
121	*Corymbia maculata*	Spotted Gum	950		11.4		19	10	7	5	8	A	A	M	M	2D	M	Moderate sized dead wood
122	*Corymbia maculata*	Spotted Gum	370		4.5		13	3	2	4	4	A	A	M	M	1A	M	
123	*Corymbia maculata*	Spotted Gum	620		7.4		16	5	5	6	4	A	A	M	M	1A	M	
124	*Corymbia maculata*	Spotted Gum	625		7.5		18	7	6	5	4	A	F	M	M	2D	M	Moderate sized dead wood
125	*Corymbia maculata*	Spotted Gum	820		9.8		19	9	6	3	4	A	F	M	M	2D	M	Moderate sized dead wood
126	*Melaleuca stypheloides*	Prickly Leaved Paperbark	420		5.1		8	4	4	4	4	A	A	M	L	2A	L	
127	*Corymbia maculata*	Spotted Gum	660		7.9		8	4	4	4	4	A	A	M	M	2A	M	
128	*Corymbia maculata*	Spotted Gum	520		6.2		8	4	4	4	4	A	A	M	M	2A	M	
129	*Corymbia maculata*	Spotted Gum	980		11.7		19	12	9	11	8	F	A	M	M	2D	M	Large sized dead wood
130	*Melaleuca stypheloides*	Prickly Leaved Paperbark	480		5.7		8	4	4	4	4	A	A	M	L	2A	L	
131	*Eucalyptus fibrosa*	Broad Leaved Ironbark	650		7.8		17	7	8	6	5	F	F	M	M	2D	M	Assessed from a distance due to access issues
132	*Corymbia maculata*	Spotted Gum	1160		9.6		20	12	8	8	9	A	A	M	M	2D	M	Assessed from a distance due to access issues
133	*Corymbia maculata*	Spotted Gum	600		7.2		19	9	8	8	7	A	A	M	M	2D	M	Assessed from a distance due to access issues
134	*Eucalyptus fibrosa*	Broad Leaved Ironbark	600		7.2		17	8	7	5	6	A	A	M	M	2D	M	Assessed from a distance due to access issues

LEGEND

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(1.4m)
* DBH estimated due to access restrictions

DRB– Diameter Above Root Buttress

TPZ - Tree Protection Zone
12xDBH

SRZ – Structural Root Zone
$(DRB \times 50)^{0.42} \times 0.64$

Health
P-Poor
F-Fair
A-Average
E-Excellent

Structure
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Age Class
I-Immature – Recently Planted or Sapling Growth
SM-Semi Mature - <20% life expectancy
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OM-Over Mature/Senescent >80% life expectancy

LS – Landscape Significance
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Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)		TPZ (M)		Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes
135	*Eucalyptus fibrosa*	Broad Leaved Ironbark	450		5.4		13	4	6	2	3	F	F	M	M	2D	M	Assessed from a distance due to access issues
136	*Corymbia maculata*	Spotted Gum	960		11.6		20	12	9	10	9	A	A	M	M	2D	M	Assessed from a distance due to access issues
137	*Eucalyptus fibrosa*	Broad Leaved Ironbark	770		9.3		18	7	7	5	2	P	P	M	L	2D	M	Assessed from a distance due to access issues
138	*Corymbia maculata*	Spotted Gum	720		8.7		17	7	7	5	4	A	A	M	M	2D	M	Assessed from a distance due to access issues
139	*Corymbia maculata*	Spotted Gum	720		8.7		18	8	7	3	6	A	A	M	M	2D	M	Assessed from a distance due to access issues
140	*Corymbia maculata*	Spotted Gum	690		8.3		19	7	7	6	3	F	F	M	M	2D	M	Assessed from a distance due to access issues
141	*Corymbia maculata*	Spotted Gum	700		8.5		19	7	6	7	3	F	F	M	L	2D	M	Assessed from a distance due to access issues
142	*Eucalyptus species*	Stringy Bark	700		8.4		16	5	6	5	7	A	A	M	M	2A	M	Unidentified stringy bark
143	*Corymbia maculata*	Spotted Gum	960		11.6		19	12	10	9	8	A	A	M	M	2A	M	
144	*Mixed species*	Gums	950 to 100				7-20					A	A	SM-M	M	1A	M	Grouping of closely spaced semi mature to mature trees of good health. Approximately 20 trees.
145	*Eucalyptus fibrosa*	Broad Leaved Ironbark	290		3.5		15	2	4	4	3	A	A	M	M	2D	M	Sparse foliage
146	*Eucalyptus fibrosa*	Broad Leaved Ironbark	320		3.8		15	4	5	6	5	A	A	M	M	2D	M	Minor deadwood
147	*Eucalyptus fibrosa*	Broad Leaved Ironbark	590		7.1		18	7	6	8	7	A	A	M	M	1A	M	
148	*Corymbia maculata*	Spotted Gum	550		6.6		17	7	7	6	6	A	A	M	M	1A	M	
149	*Corymbia maculata*	Spotted Gum	860		10.3		18	4	6	7	4	A	A	M	M	2A	M	
150	*Corymbia maculata*	Spotted Gum	200		2.4		13	2	2	2	2	A	A	SM	M	1A	M	
151	*Corymbia maculata*	Spotted Gum	600 560		9.9		18	6	7	8	7	A	A	M	M	1A	M	Moderate sized dead wood
152	*Corymbia maculata*	Spotted Gum	250 280		4.6		14	4	7	3	4	F	F	M	M	3A	L	Stunted tree with poor vigour
153	*Corymbia maculata*	Spotted Gum	480		5.8		18	7	7	8	9	A	A	M	M	2A	M	
154	*Angophora floribunda*	Rough Barked Apple	350		4.2		14	5	6	6	7	A	A	M	M	2A	M	
155	*Angophora floribunda*	Rough Barked Apple	200-300		3.6		10-14					F	F	M	M	2A	M	Row of closely growing trees along fence line
156	*Corymbia maculata*	Spotted Gum	200		2.4		11	2	2	4	3	A	A	SM	M	2A	M	In close proximity to adjacent trees
157	*Corymbia maculata*	Spotted Gum	310		3.7		12	3	4	5	4	A	A	M	M	2A	M	In close proximity to adjacent trees

LEGEND

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Tree Assessment Data Sheet – Anambah Subdivision

Tree No.	Species	Common Name	DBH (mm)	TPZ (M)	Height (M)	Crown Spread (M) N	E	S	W	Health	Structure	Age Class	LS	ULE	RV	Notes

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Appendix C Useful Life Expectancy (ULE)

ULE CLASSIFICATIONS

1 LONG ULE : GREATER THAN 40 YEARS [>40]

TREES THAT APPEAR TO BE RETAINABLE WITH AN ACCEPTABLE LEVEL OF RISK FOR MORE THAN 40 YEARS

A Structurally sound trees located in positions that can accommodate future growth.

B Storm damaged or defective trees that could be made suitable for retention by remedial tree surgery.

C Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long-term retention.

2 MEDIUM ULE : MORE THAN 15 YEARS, LESS THAN 40 YEARS [15 - 40] TREES THAT APPEAR TO BE RETAINABLE WITH AN ACCEPTABLE LEVEL OF RISK FOR 15 TO 40 YEARS

A Trees that may only live between 15 and 40 more years

B Trees that may live for more than 40 years but would be removed during the course of normal management for safety or nuisance reasons

C Trees which may live for more than 40 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting

D Storm damaged or defective trees that can be made suitable for retention in the medium term by remedial work

3 SHORT ULE : MORE THAN 5 YEARS, LESS THAN 15 YEARS [5 -15]

TREES THAT APPEAR TO BE RETAINABLE WITH AN ACCEPTABLE LEVEL OF RISK FOR 5 TO 15 YEARS

A Trees that may only live between 5 and 15 more years

B Trees that may live for more than 15 years but would be removed during the course of normal management for safety or nuisance reasons

C Trees which may live for more than 15 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting

D Storm damaged or defective trees that require substantial remedial work to make safe, and are only suitable for retention in the short term

4 REMOVE : LESS THAN 5 YEARS [<5]

TREES WITH A HIGH LEVEL OF RISK THAT WOULD NEED REMOVING WITHIN THE NEXT 5 YEARS

A Dead, dying, suppressed or declining trees because of disease or inhospitable conditions

B Dangerous trees through instability or recent loss of adjacent trees

C Dangerous trees through structural defects, including cavities, decay, included bark, wounds or poor form

D Damaged trees that are clearly not safe to retain

E Trees which may live for more than 5 years but would be removed to prevent interference with more suitable individuals or to provide space for new planting

F Trees which are damaging or may cause damage to existing structures within the next 5 years

G Trees that will become dangerous after removal of others for the reasons given in A to F

H Trees in categories (a) to (g) that have high wildlife habitat value and, with appropriate treatment, could be retained subject to regular review

5 SMALL YOUNG OR REGULARLY PRUNED

TREES THAT CAN BE RELIABLY MOVED OR REPLACED

A Small trees less than 5m in height

B Young trees less than 15 years old but over 15m in height

C Formal hedges and trees intended for regular pruning to artificially control growth

Barrell, J (1996, updated 2001)

Appendix D Extract from AS 4970

Extract from AS 4970

3.1 Tree Protection Zone (TPZ)

The tree protection zone is the principal means of protecting trees on development sites. The TPZ is a combination of root area and crown area requiring protection. It is an area isolated from construction disturbance, so that the tree remains viable.

3.2 Determining the TPZ

The radius of the TPZ is calculated for each tree by multiplying its Diameter at Breast Height (DBH) x 12

TPZ=DBH x 12

DBH= Trunk diameter measured at 1.4m above ground.

Radius is measured from the centre of the stem at ground level.

A TPZ should not be less than 2m nor greater than 15m (Except where crown protection is required).

The TPZ of palms and other monocots, cycads and tree ferns should not be less than 1m outside of the crown projection.

3.3 Variations to the TPZ

3.3.1 General

It may be possible to encroach into or make variations to the standard TPZ. Encroachment includes excavation, compacted fill and machine trenching.

3.3.2 Minor Encroachment

If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ, detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ. Variations must be made by the project arborist considering relevant factors listed in clause 3.3.4.

3.3.2 Major Encroachment

If the proposed encroachment is greater than 10% of the TPZ or inside the SRZ, the project arborist must demonstrate that the tree would remain viable. The area lost to the encroachment should be compensated for elsewhere and contiguous with the TPZ. This may require root investigation by non destructive methods and consider relevant factors listed in clause 3.3.4.

3.3.5 Structural Root Zone

The SRZ is the area required for tree stability. A larger area is required to maintain a viable tree.

The SRZ only needs to be calculated when major encroachment into the TPZ is proposed.

There are many factors that affect the size of the SRZ (e.g. tree height, crown area, soil type, soil moisture). The SRZ may also be influenced by natural or built structures, such as rocks or footings. An indicative SRZ radius can be determined from the trunk diameter measured immediately above the root buttress using the following formula. Root investigation may provide more information on the extent of these roots SRZ radius.

SRZ radius = (D x 50)0.42 x 0.64
where
D = trunk diameter, in metres, measured above the root buttress

The SRZ for trees with trunk diameters less than 0.15 will be 1.5 metres