

12 July 2016

Our Ref: N-15042

Natasha Harras Team Leader, Modification Assessments Department of Planning + Environment GPO Box 39 Sydney NSW 2001

Dear Natasha,

SUBJECT: THE DAN LAND, 290 AND 302 MINMI ROAD FLETCHER - SECTION 75W APPLICATION TO MODIFY CONCEPT PLAN 06_0031

Reference is made to the meeting at the Department's Bridge Street offices on 23 March 2016, attended by you, Anthony Witherdin, Northwest Residential's Bill McNamee and the writer, regarding this matter. As a result of this meeting there were a number of matters to be addressed, as follows:

- Provision of a road reserve connection to the adjoining Urban Growth NSW residential subdivision.
- Arborist's assessment of the existing trees along the Minmi Road frontage of the site.
- Council's preference for there to be no residential lots with direct vehicular access to Minmi Road.
- DP+E's request that battle-axe lots be eliminated from the proposed subdivision.
- DP+E's request that design guidelines be prepared for the development of the proposed small lots within the subdivision.
- Provision for a bus route through the proposed subdivision.

The following details address each of these matters.

1. ROAD RESERVE CONNECTION

The proposed subdivision layout has been amended, in part to show a road reserve

SUITE 2, 14 WATT STREET, NEWCASTLE NSW 2300 TEL +61 2 4925 3286 FAX +61 2 4925 3403 WWW.CITYPLAN.COM.AU CITY PLAN STRATEGY & DEVELOPMENT P/L ABN 58 133 501 774 connection to the adjoining Urban Growth NSW residential subdivision to the northeast. The amended subdivision layout is shown at Attachment 1.

2. ARBORIST'S ASSESSMENT

An arborist's assessment of the existing trees along the Minmi Road frontage of the subject land has been undertaken by Terras Landscape Architects (refer to report at Attachment 2). The report found that a total of 76 trees exist along the Minmi Road frontage of the site, principally consisting of Corymbia maculata (Spotted Gum). Of the 76 trees, 2 have been assessed as having high retention value, 51 as having moderate retention value, 12 as having low retention value, and 11 as having low retention value. The report identifies that "the majority of the subject trees will require removal due to proposed service locations, 2.2m wide shared path, parking lane, entry road and driveway locations servicing narrow frontages. Due to the topography of the site, the proposed lots require benching and retaining [walls]. This will require the removal of trees located within lots."

Accordingly, the arborist's report recommends certain remedial measures, including supplementary tree planting.

3. DIRECT VEHICULAR ACCESS TO MINMI ROAD

A meeting was held with Council officers on 4 May 2016 to discuss their preference for no direct vehicular access to the residential lots proposed along Minmi Road. The officers remain opposed to direct vehicular access to these lots, preferring access to be provided instead through a subdivision redesign that provides access to the rear of the lots via an internal street. This position is contrary to the Concept Approval for the subject land which accommodated direct access to Minmi Road.

Accordingly, traffic engineers, SECA Solution, were engaged by Northwest Residential to review the alignment and layout of Minmi Road adjacent to the subject site and provide comment on the issue of the proposed direct access to the Minmi Road lots. This review examined the existing situation in this location and provided advice on the design requirements to accommodate this direct access (refer to letter at Attachment 3). The review concluded as follows:

"The alignment of Minmi Road in the location of Lots 19 to 34 and 1 to 11 is straight and provides for good visibility in both directions for drivers entering and exiting the proposed driveways. The design of these lots will allow for a combined driveway to service two adjacent lots, thereby reducing the number of driveway crossings by 50%. Council advised that the footway along this side of Minmi Road will allow for a combined footway / cycleway and that they expect a high use of this path by a number of users. Whilst it is recognised that there will be potential conflicts between vehicles crossing the pathway and pedestrians / cyclists, this is not considered to be a major safety concern allowing for appropriate design of the pathway within the verge. A similar situation occurs on the opposite side of Minmi Road in this location, where the line of houses fronting Minmi Road have driveway access direct across the footpath. This footpath is used by pedestrians as well as cyclists under 12 years of age and operates in a safe manner. Vehicle speeds entering and exiting the driveways are very low and visibility for pathway users and drivers is good, ensuring that traffic movements can occur in a safe manner."

In response to SECA Solution's recommendation that the design of the Minmi Road-frontage lots incorporate combined driveways to service two adjacent lots, the subdivision layout has been amended accordingly (refer Attachment 1). The design guidelines at Attachment 4 also include this recommendation (refer p.8).

Having regard to SECA Solution's review findings and recommendations, it is considered that the provision of direct vehicular access to the proposed Minmi Road-frontage lots should remain as provided under the Concept Approval granted for the subject land but with provision for the combined driveways as now proposed.

4. **REMOVAL OF BATTLE-AXE LOTS**

As shown in the proposed subdivision layout plan, the plan has been amended to eliminate certain battle-axe lots discussed at our meeting on 23 March by the introduction of a loop road (road no. 2). As a result, only three battle-axe lots now remain (lots 72, 123 & 124).

5. DESIGN GUIDELINES

As requested, design guidelines in respect of the proposed small lots have been prepared by ADW Johnson (refer Attachment 4). These guidelines are modelled on the guidelines applying to the small lot development within the adjoining Urban Growth NSW residential subdivision to the northeast and are drafted in a form able to be adopted and incorporated within Newcastle DCP 2012.

6. BUS ROUTE

Northwest Residential's traffic engineers, SECA Solution, have examined the matter of accommodating a bus route through the subject land (refer to letter at Attachment 3). In this regard they have advised as follows:

"Discussion held with the local bus provider (Hunter Valley Buses CDC Mr John Meldrum 6/6/16) indicates that they will not look to access the Stage 10 development with a circular route given the single connection to Minmi Road, as this does not provide them with efficient routing for the bus service. This circular route would add 5 minutes or more for the bus route and as the catchment area is not that significant, it would not be suitable to modify the existing route through Stage 10. Their normal requirement for servicing a new residential area is 500 lots minimum and the Stage 10 development will allow for some 100 lots to be developed only. The bus provider indicated that quality bus facilities with effective pedestrian connectivity should be provided on Minmi Road which would allow for bus use, given that the majority of the houses in Stage 10 could be within 400 metres of this stop. A suitable pedestrian refuge island to enable appropriate crossing of Minmi Road should also be considered."

I trust that the above details adequately respond to the matters raised at our meeting on 23 March. Please contact me should you require anything further in respect of our request to modify Concept Plan 06_0031.

Yours sincerely,

GARRY FIELDING

SENIOR CONSULTANT

CITY PLAN STRATEGY AND DEVELOPMENT PTY LIMITED

ATTACHMENTS:

Attachment 1 - Amended Subdivision Layout Plan

Attachment 2 - Arborist's Assessment Report

Attachment 3 - Traffic Engineer's Report

Attachment 4 - Design Guidelines

ATTACHMENT 1 - AMENDED SUBDIVISION LAYOUT PLAN



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ATTACHMENT 2 - ARBORIST'S ASSESSMENT REPORT



Arborist Report

Project - Stage 10 The Outlook

Revision - A - 12-05-16





date:	12/05/2016
project no:	9496.5
site:	Minmi Road, Fletcher
council:	Newcastle City Council
proposal:	Removal of trees in relation to a proposed residential subdivision

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principals: phillip williams steve rushworth ABN: 67 129 348 842 phone: +61 2 4929 4926 Fax: +61 2 4926 3069 address: 412 king st, newcastle, nsw 2300 www.terras.com.au



1 introduction

Northwest Residential has engaged Terras Landscape Architects to undertake an inspection of trees located along the Minmi Road frontage in relation to proposed residential subdivision works.

2 assessing arborist

Shaun King Terras Landscape Architects ABN: 67 129 348 842 412 King Street, Newcastle, NSW. 2300 Phone 02 4929 4926 Mobile 0408 716 471 Email: sking@terras.com.au Qualifications: Diploma of Horticulture (Landscape Design) Diploma of Horticulture (Arboriculture) AQF level 5 Certificate No. C0045006,

3 methodology

The site was visited on the afternoon of the 19th of April 2016. The following methods have been employed in preparing this report

- Visual Tree Inspection (VTA) (Mattheck & Breloer, 1994) was undertaken. Seventy six trees were inspected and assessed from the ground. The visual tree inspection included all visible above ground parts of the tree including exposed roots, trunk, branches and foliage.
- An assessment of Useful Life Expectancy (ULE) (Barrell 1993). ULE categories give an indication of the useful life expectancy of a tree. Several factors are taken into consideration in determining ULE ratings such as, location, species, age, health and structure of the tree. Refer to Appendix 3.
- Retention value of trees was determined using the steps outlined in the "Newcastle Urban Forest", Technical Manual April 2015. Refer to table "Retention Value of Trees" below on page 4.

No below ground inspections or analyses was undertaken in the root zone or on soil depths.

No internal inspections or tissue analyses was undertaken on the subject trees.



4 site

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The site has frontage to Minmi Road, Fletcher and extents north to the southern edge of Hexham Swamp. The site has previously been used for grazing.

A residential subdivision is located to the south across Minmi Road of Stage 10 with the exception of a small area of bushland interface on the extreme western edge of Stage 10.

To the west of Stage 10 are previously constructed stages of The Outlook subdivision. To the east is a pocket of bushland and the Sanctuary subdivision.

The majority of the sites vegetation consists of pasture with scattered trees.

5 assessment of retention values

Using Newcastle City Councils methodology for assessing the retention value of trees (NCC, 2015) the following results were determined.

	Retention	Value of Tre	ees – Site 1	
	Using Newcastle Urb	an Forest Techni	cal Manual April 2015	5
Tree	Species	Sustainability	Landscape	Retention
No.		Period	Significance	Value
		(Years)	Rating	
1	Eucalyptus crebra	>40	5 Low	Moderate
2	Eucalyptus crebra	15-40	4 Moderate	Moderate
3	Corymbia maculata	15-40	4 Moderate	Moderate
4	Corymbia maculata	5-15	5 Low	Low
5	Corymbia maculata	15-40	Moderate	Moderate
6	Corymbia maculata	15-40	5 Low	Low
7	Eucalyptus crebra	15-40	5 Low	Low
8	Eucalyptus crebra	<5	5 Low	Very Low
9	Eucalyptus crebra	<5	5 Low	Very Low
10	Dead Tree	Dead	6 Very Low	Very Low
11	Corymbia maculata	>40	5 Low	Moderate
12	Corymbia maculata	>40	3 High	High
13	Dead Tree	Dead	6 Very Low	Very Low
14	Corymbia maculata	15-40	4 Moderate	Moderate
15	Eucalyptus species	>40	5 Low	Moderate
16	Eucalyptus species	5-15	5 Low	Low
17	Corymbia maculata	>40	5 Low	Moderate
18	Corymbia maculata	>40	3 High	High
19	Eucalyptus species	5-15	5 Low	Low



20	Corymbia maculata	15-40	4 Moderate	Moderate
21	Corymbia maculata	>40	4 Moderate	Moderate
22	Eucalyptus crebra	15-40	5 Low	Low
23	Eucalyptus species	<5	5 Low	Very Low
24	Corymbia maculata	>40	4 Moderate	Moderate
25	Eucalyptus propinqua	<5	5 Low	Very Low
26	Corymbia maculata	>40	5 Low	Moderate
27	Dead Tree	Dead	6 Very Low	Very Low
28	Corymbia maculata	15-40	Moderate	Moderate
29	Corymbia maculata	5-15	5 Low	Low
30	Corymbia maculata	>40	5 Low	Moderate
31	Corymbia maculata	>40	5 Low	Moderate
32	Corymbia maculata	<5	5 Low	Very Low
33	Corymbia maculata	>40	4 Moderate	Moderate
34	Eucalyptus species	5-15	5 Low	Low
35	Eucalyptus species	15-40	4 Moderate	Moderate
36	Eucalyptus crebra	<5	5 Low	Very Low
37	Eucalyptus crebra	<5	5 Low	Very Low
38	Corymbia maculata	>40	5 Low	Moderate
39	Corymbia maculata	15-40	4 Moderate	Moderate
40	Corymbia maculata	>40	4 Moderate	Moderate
41	Corymbia maculata	>40	4 Moderate	Moderate
42	Corymbia maculata	>40	4 Moderate	Moderate
43	Corymbia maculata	>40	4 Moderate	Moderate
44	Corymbia maculata	>40	4 Moderate	Moderate
45	Corymbia maculata	>40	4 Moderate	Moderate
46	Eucalyptus crebra	>40	4 Moderate	Moderate
47	Corymbia maculata	5-15	5 Low	Low
48	Corymbia maculata	>40	4 Moderate	Moderate
49	Corymbia maculata	15-40	4 Moderate	Moderate
50	Corymbia maculata	>40	4 Moderate	Moderate
51	Corymbia maculata	>40	4 Moderate	Moderate
52	Corymbia maculata	>40	5 Low	Moderate
53	Corymbia maculata	>40	4 Moderate	Moderate
54	Corymbia maculata	>40	4 Moderate	Moderate
55	Eucalyptus species	<5	5 Low	Very Low
56	Corymbia maculata	>40	4 Moderate	Moderate
57	Corymbia maculata	>40	5 Low	Moderate
58	Eucalyptus crebra	15-40	4 Moderate	Moderate
59	Corymbia maculata	>40	Moderate	Moderate



60	Corymbia maculata	>40	5 Low	Moderate
61	Corymbia maculata	15-40	3 High	Moderate
62	Corymbia maculata	>40	4 Moderate	Moderate
63	Corymbia maculata	>40	Moderate	Moderate
64	Corymbia maculata	15-40	3 High	Moderate
65	Corymbia maculata	>40	4 Moderate	Moderate
66	Corymbia maculata	15-40	4 Moderate	Moderate
67	Corymbia maculata	15-40	4 Moderate	Moderate
68	Corymbia maculata	>40	5 Low	Moderate
69	Corymbia maculata	>40	5 Low	Moderate
70	Corymbia maculata	>40	5 Low	Moderate
71	Eucalyptus propinqua	<5	5 Low	Low
72	Corymbia maculata	>40	5 Low	Moderate
73	Corymbia maculata	>40	5 Low	Moderate
74	Corymbia maculata	5-15	4 High	Moderate
75	Eucalyptus propinqua	<5	5 Low	Low
76	Corymbia maculata	5-15	4 Moderate	Low

6 tree assessment

The subject trees are locally occurring native species and some would be considered remnant trees. A number of the trees have sustained damage during the April 2015 storm.

A number of the larger trees are over mature and have wounding, decay and canopy die-back. Several trees are dead.

Trees located within the eastern portion of the site are of much better health and structure probably due to the protection provided by surrounding vegetation. Trees located within the western portion are much more exposed and are generally of less quality.

The dominant species within the study area is Corymbia maculata (Spotted Gum). The spotted gums are generally of good health and structure. Other species within the study area include Eucalyptus crebra (Ironbark), Eucalyptus propinqua (Grey Gum) and an unidentified Eucalyptus species (Stringybark). These three species are not generally doing as well as the Spotted Gums.

Of the seventy six trees assessed, two trees have a high retention value, fifty one trees have a moderate retention value, twelve trees have a low retention value and 11 trees have a very low retention value.

16 of the moderate rated trees are semi mature trees with a trunk diameter of less than 200mm.





Figure 1. Looking east along Minmi Road.

7 impacts of development

It is anticipated that the majority of the subject trees will require removal due to proposed service locations, 2.5m wide shared path, parking lane, entry road and driveway locations servicing narrow frontages.

Due to the topography of the site, the proposed lots require benching and retaining. This will require the removal of trees located within lots.

Trees located along Minmi Road within the proposed open space can be retained. These include: Trees 40, 41, 42, 43, 44, 45 46, 47, 48 and 49.

7





Figure 2. There are many immature trees some of which could be retained.





Figure 3. There a number of dead and over mature trees located along Minmi Road.

8 recommendations

- Carry out supplementary street tree planting.
- Carry out supplementary planting to the front of lots with small to medium sized native trees to soften any visual impacts from tree removal.
- Protect trees that that are potentially retainable to AS 4970 Protection of Trees on Development Sites.
- Trees that require removal to be dismantled and mulched. Mulch can be utilised for future landscape works. If not practical mulch to be disposed of in a legal manner offsite.
- Ensure all tree removal work is carried out by or supervised by a qualified tree worker (AQF Level 3 or equivalent) in accordance with the NSW WorkCover Code of Practice for the Amenity Tree Industry, 1998.





9 references

Barrell, J.	Pre-Development Tree Assessment, (in Watson/Neely 1995) [Modified]
Costello, L.R. Jones, K. S.	Reducing Infrastructure Damage By Tree Roots (A Compendium of Strategies) WCISA, Porterville, 2003.
Draper, D. Richards, P.A.	Dictionary for Managing Trees in Urban Environments. CSIRO, Collingwood Vic, 2009.
Link Tree System Ltd. Barrell, J.	Arboricultural Journal 1993, Vol. 17pp. 33-46, 01/03/98
Matheck, C. Breloer, H.	The Body Language of Trees: A Handbook for Failure Analysis.TSO, London, England.
Matheny, N. Clark, J.R.	Trees and Development (A Technical Guide to Preservation of Trees During Land Development) ISA, Illinois, 1998
Newcastle City Council	Newcastle Urban Forest Technical Manual, (December 2010)
Smiley,	
E.Thomas.	Best Management Practices Tree Risk
Matheny, M.	ISA, Champaign, Illinois. (2011)
Lilly, Sharon.	
Standards Australia	Australian Standard AS 4970 Protection of Trees on Development Sites. (September 2009)



10 appendix 1 retention values drawing -site plan



CITE



site details: MINMI ROAD, FLETCHER client: NORTHWEST RESIDENTIAL date: MAY 2016 job number: 9496.5 scale: 1-800 @ A3 drawn: SGK rev. number: А

RETENTION VALUES CALCULATED FROM CITY OF NEWCASTLES URBAN FOREST TECHNICAL MANUAL. TREES SHOWN AS INDICATIVE TREE PROTECTION ZONE AS CALCULATED FROM AS4970 PROTECTION OF TREES ON DEVELOPMENT SITES.

HIGH RETENTION VALUE

MODERATE RETENTION VALUE

LOW RETENTION VALUE

VERY LOW RETENTION VALUE

site plan 02

stage 10 outlook







may 2016





11 appendix 2 tree assessment schedule

FIELD ASSESSMENT SHEET

PROJECT: Stage 10 Outlook

Nic			AGE	HEIGHT	DBH		SPRE	AD [M]				STRUCT		
No	BOTANICAL NAME	COMMON NAME	CLASS	[M]	[MM]	NORTH	EAST	SOUTH	WEST	ULE	TREE AZ	URE	HEALTH	
1	Eucalyptus crebra	Ironbark	SM	5	150	1	1	1	1	1A		F	F	·
2	Eucalyptus crebra	Ironbark	М	19	900	7	6	8	9	2D		F	F	L
3	Corymbia maculata	Spotted Gum	М	20	700	8	3	7	6	2D		F	AV	L
4	Corymbia maculata	Spotted Gum	М	15	450	7	5	0	4	3D		Р	AV	S
5	Corymbia maculata	Spotted Gum	М	20	750	8	5	6	8	2D		F	AV	D
6	Corymbia maculata	Spotted Gum	М	15	360	7	6	5	0	2D		F	AV	А
7	Eucalyptus crebra	Ironbark	М	15	430	7	3	2	4	2D		F	F	А
8	Eucalyptus crebra	Ironbark	ОМ	18	520	5	5	3	4	4D		Ρ	Р	L L A
9	Eucalyptus crebra	Ironbark	М	20	810	8	7	4	3	4D		Р	F	L
10	Dead tree									4A				
11	Corymbia maculata	Spotted Gum	SM	7	290	3	3	3	3	1A		AV	AV	
12	Corymbia maculata	Spotted Gum	М	20	800	9	8	8	4	1A		AV	AV	Ν
13	Dead tree									4A				
14	Corymbia maculata	Spotted Gum	М	20	300 720	8	4	6	4	2D		F	F	Ν
15	Eucalyptus species	Stringy Bark	SM	4	100	1	1	1	1	4B		Ρ	Ρ	S V
16	Eucalyptus species	Stringy Bark	М	17	310	2	2	2	2	3D		Ρ	F	S C
17	Corymbia maculata	Spotted Gum	SM	7	120	1	1	1	1	1A		AV	AV	
18	Corymbia maculata	Spotted Gum	М	20	720	9	6	5	6	1A		AV	AV	N
19	Eucalyptus species	Stringy Bark	М	17	700	7	3	5	3	3D		F	F	L
20	Corymbia maculata	Spotted Gum	М	18	700 480	9	6	6	9	2D		F	AV	N
21	Corymbia maculata	Spotted Gum	М	18	510	7	6	5	4	1A		AV	AV	Ν
22	Eucalyptus crebra	Ironbark	М	15	530	6	6	3	3	3D		Ρ	F	P B
23	Eucalyptus species	Stringy Bark	OM	13	460	6	4	0	0	4B	· · · ·	Р	Р	А

* MULTI TRUNKED. BASAL DIAMETER MEASURED IMMEDIATELY ABOVE ROOT FLARE

				LEGEND			
AGE CLASS	Y	YOUNG SAPLING/HAS NOT REACHED 1 [™] ADULT FORM	SM	SEMI-MATURE DBH < 300mm/APPROACHING FULL HEIGHT	М	MATURE DBH BET. 300 -700/APPROACH. MAX HT & SPREAD	ОМ
STRUCTURE	Р	POOR NUMEROUS STRUCTURAL FAULTS/HIGH RISK OF SEVERE FAILURE	F	FAIR STRUCTURAL FAULTS PRESENT /MODERATE RISK OF SEVERE FAILURE	Av	AVERAGE SOME MINOR FAULTS /MODERATE RISK FOR MAJOR FAILURE	Ex
HEALTH	Р	POOR SIG. SIGNS OF LOST VIGOUR EG DIEBACK, REDUCED CANOPY	F	FAIR SIGNS OF REDUCED VIGOUR EG LEAF UNDER STRESS, STUNTING	Av	AVERAGE LOCALISED PATCHES OF LOST VIGOUR/NOT WIDESPREAD	Ex
		TO 412 KING STREET NEWCASTLE					

TERRAS LANDSCAPE ARCHITECTS, 412 KING STREET, NEWCASTLE

May 2016

COMMENTS

LARGE SIZED DEAD WOOD

LARGE SIZED DEAD WOOD

SUPPRESSED ASYMMETRIC TREE

DEAD WOOD AND FAILED BRANCH STUBS

ASYMMETRIC TREE

ASYMMETRIC TREE

LARGE LATERAL WOUND APPROX 10M LONG FROM BASE. DEAD WOOD, TERMITE ACTIVITY AND DECAY PRESENT.

LARGE WOUND AT APPROX 8M WITHIN TRI-DOMINANT BRANCH JUNCTION.

MINOR DEAD WOOD

MODERATELY SIZED DEAD WOOD

SMALL SUPPRESSED TREE WITH A LARGE WOUND ON THE LOWER TRUNK.

SUPPRESSED TREE WITH A LARGE AMOUNT OF DEAD WOOD.

MINOR DEAD WOOD

LARGE AMOUNT OF DEAD WOOD

MODERATE AMOUNT OF DEAD WOOD

MINOR DEAD WOOD

POOR BRANCH UNION AT FIRST SCAFFOLD BRANCH JUNCTION

ALMOST DEAD

OVER-MATURE/SENESCENT LGE DBH, LGE BRANCH FAILURES/STRUCT FAULTS EXCELLENT SOME MINOR FAULTS/LOW-MOD RISK OF MINOR FAILURES EXCELLENT NO EVIDENCE OF STRESS/SIGNS OF NEW GROWTH/WIDESPREAD

1 | Page

PROJECT: Stage 10 Outlook

No	BOTANICAL NAME	COMMON NAME	AGE CLASS	HEIGHT [M]	DBH [MM]	NORTH	EAST	AD [M] SOUTH	WEST	ULE	TREE AZ	STRUCT URE	HEALTH	
24	Corymbia maculata	Spotted Gum	M	19	590	8	8	8	7	1A		AV	AV	N
25	Eucalyptus propinqua	Grey Gum	М	17	600	9	7	3	5	4B		Р	Ρ	L
26	Corymbia maculata	Spotted Gum	SM	10	200	0	2	4	4	1A		F	AV	
27	Dead Tree									4A				
28	Corymbia maculata	Spotted Gum	М	17	460	8	6	10	4	2D		F	F	Ν
29	Corymbia maculata	Spotted Gum												
30	Corymbia maculata	Spotted Gum	SM	8	120	2	2	2	2	1A		AV	AV	
31	Corymbia maculata	Spotted Gum	SM	12	150	2	2	2	2	1A		AV	AV	
32	Corymbia maculata	Spotted Gum	Μ	20	910	9	8	6	7	4D		Ρ	F	F L C
33	Corymbia maculata	Spotted Gum	М	17	300	4	6	3	2	1A		AV	AV	
34	Eucalyptus species	Stringy Bark	М	18	720	10	8	6	5	3D		F	F	T C
35	Eucalyptus species	Stringy Bark	М	16	480	5	5	5	5	2D	-	F	F	Ν
36	Eucalyptus crebra	Ironbark	Μ	16	590	9	7	7	8	4B		Ρ	F	T L S
37	Eucalyptus crebra	Ironbark	OM	18	580	3	0	0	0	4B		Р	Р	A
38	Corymbia maculata	Spotted Gum	SM	10	200	1	1	1	1	1A		AV	AV	
39	Corymbia maculata	Spotted Gum	М	16	670	8	8	7	5	2D		F	F	L S
40	Corymbia maculata	Spotted Gum	М	15	320	4	4	3	3	1A		AV	AV	
41	Corymbia maculata	Spotted Gum	М	16	330	5	5	5	3	1A		AV	AV	
42	Corymbia maculata	Spotted Gum	М	17	350	7	7	6	7	1A		AV	AV	
43	Corymbia maculata	Spotted Gum	М	18	310	5	5	3	3	1A		AV	AV	
44	Corymbia maculata	Spotted Gum	М	17	280	3	3	3	3	1A		AV	AV	
45	Corymbia maculata	Spotted Gum	М	18	420	5	5	5	5	1A		AV	AV	
46	Eucalyptus crebra	Ironbark	М	16	320	3	5	5	4	1A		AV	AV	
47	Corymbia maculata	Spotted Gum	М	19	460	2	4	3	2	3D		F	F	S Г

* MULTI TRUNKED. BASAL DIAMETER MEASURED IMMEDIATELY ABOVE ROOT FLARE

				LEGEND			
AGE CLASS	Y	YOUNG SAPLING/HAS NOT REACHED 1 ^{III} ADULT FORM	SM	SEMI-MATURE DBH < 300mm/APPROACHING FULL HEIGHT	М	MATURE DBH BET. 300 -700/APPROACH. MAX HT & SPREAD	ОМ
STRUCTURE	Р	POOR NUMEROUS STRUCTURAL FAULTS/HIGH RISK OF SEVERE FAILURE	F	FAIR STRUCTURAL FAULTS PRESENT /MODERATE RISK OF SEVERE FAILURE	Av	AVERAGE SOME MINOR FAULTS /MODERATE RISK FOR MAJOR FAILURE	Ex
HEALTH	Р	POOR SIG. SIGNS OF LOST VIGOUR EG DIEBACK, REDUCED CANOPY	F	FAIR SIGNS OF REDUCED VIGOUR EG LEAF UNDER STRESS, STUNTING	Av	AVERAGE LOCALISED PATCHES OF LOST VIGOUR/NOT WIDESPREAD	Ex
		TO ATO KING OTDEET NEWCARTLE					

TERRAS LANDSCAPE ARCHITECTS, 412 KING STREET, NEWCASTLE

May 2016

COMMENTS

MINOR DEAD WOOD

LARGE AMOUNT OF DIE-BACK AND DEAD WOOD THROUGHOUT CANOPY

MODERATE AMOUNT OF DEAD WOOD

HOLLOWS AND LARGE AREA OF DECAY. LARGE DEAD LIMB AND A LARGE AMOUNT OF DEAD WOOD.

TERMITE ACTIVITY AND A LARGE AMOUNT OF DEAD WOOD.

MODERATE AMOUNT OF DEAD WOOD

TERMITE ACTIVITY AND LARGE DEAD LEADERS. BRANCH TEAR OUTS FROM STORM DAMAGE.

ALMOST DEAD

LEAN TOWARDS ROAD AND A RELATIVELY SPARSE CANOPY

SMALL CANOPY AND MODERATE SIZED DEAD WOOD

OVER-MATURE/SENESCENT LGE DBH, LGE BRANCH FAILURES/STRUCT FAULTS EXCELLENT SOME MINOR FAULTS/LOW-MOD RISK OF MINOR FAILURES EXCELLENT NO EVIDENCE OF STRESS/SIGNS OF NEW GROWTH/WIDESPREAD

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PROJECT: Stage 10 Outlook

_														
No	BOTANICAL NAME	COMMON NAME	AGE CLASS	HEIGHT [M]	DBH [MM]	NORTH		AD [M] SOUTH	WEST	ULE	TREE AZ	STRUCT URE	HEALTH	
				[]		NORTH	EAST	300111	VVLOT					
48	Corymbia maculata	Spotted Gum	М	19	400	5	3	5	5	1A		AV	AV	
49	Corymbia maculata	Spotted Gum	М	19	430	3	5	3	2	2D		AV	AV	ę
50	Corymbia maculata	Spotted Gum	М	17	250	4	3	6	3	1A		AV	AV	
					330									
51	Corymbia maculata	Spotted Gum	Μ	17	290	4	4	4	3	1A		AV	AV	
52	Corymbia maculata	Spotted Gum	SM	12	180	4	1	4	3	1A		AV	AV	
53	Corymbia maculata	Spotted Gum	М	17	370	4	4	4	3	1A		AV	AV	
54	Corymbia maculata	Spotted Gum	М	14	280	3	4	5	5	1A		AV	AV	
55	Eucalyptus species	Stringy Bark	Μ	13	420	3	5	5	2	4B		Ρ	Ρ	L \
56	Corymbia maculata	Spotted Gum	SM	200 250	12	3	3	3	3	1A		AV	AV	
57	Corymbia maculata	Spotted Gum	SM	14	280	3	2	2	2	1A		AV	AV	
58	Eucalyptus crebra	Ironbark	М	15	410	8	7	7	6	2D		F	AV	E
59	Corymbia maculata	Spotted Gum	М	15	310	4	4	4	4	1A		AV	AV	
60	Corymbia maculata	Spotted Gum	SM	12	190	1	1	1	1	1A		AV	AV	
61	Corymbia maculata	Spotted Gum	М	17	780	7	5	4	6	2D		AV	AV	Ν
62	Corymbia maculata	Spotted Gum	М	15	280	4	4	4	4	1A		AV	AV	
63	Corymbia maculata	Spotted Gum	М	17	360	5	6	4	5	1A		AV	AV	
64	Corymbia maculata	Spotted Gum	М	17	700	6	8	7	6	2D		F	AV	Ν
65	Corymbia maculata	Spotted Gum	М	16	290	4	4	5	5	1A		AV	AV	
66	Corymbia maculata	Spotted Gum	М	20	650	7	7	6	8	2D		AV	AV	Ν
67	Corymbia maculata	Spotted Gum	М	18	380	4	4	5	5	1A		AV	AV	
68	Corymbia maculata	Spotted Gum	SM	12	140	1	1	1	1	1A		AV	AV	
69	Corymbia maculata	Spotted Gum	SM	13	140	1	1	2	1	3D		Ρ	AV	L
70	Corymbia maculata	Spotted Gum	М	17	280	3	3	3	3	1A		AV	AV	
71	Eucalyptus propinqua	Grey Gum	М	16	360	0	0	5	5	4D		Р	Р	4

* MULTI TRUNKED. BASAL DIAMETER MEASURED IMMEDIATELY ABOVE ROOT FLARE

AGE CLASS Y YOUNG SAPLING/HAS NOT REACHED 1" ADULT FORM SM SEMI-MATURE DBH < 300mm/APPROACHING FULL HEIGHT	MATURE	ОМ
ATTRICTURE D POOR E FAIR ALL	DBH BET. 300 -700/APPROACH. MAX HT & SPREAD	Olvi
SIBUCIUBE P AV	AVERAGE	Ex
HEALTH P POOR F FAIR Av TERPAS LANDSCARE ADDITIECTS 4.10 KING STREET, NEWCASTLE F SIGNS OF REDUCED VIGOUR EG LEAF UNDER STRESS, STUNTING Av	AVERAGE DCALISED PATCHES OF LOST VIGOUR/NOT WIDESPREAD	Ex

TERRAS LANDSCAPE ARCHITECTS, 412 KING STREET, NEWCASTLE

May 2016

COMMENTS

SOME STORM DAMAGE

LARGE AMOUND OF DEAD WOOD. LARGE WOUND AND DECAY IN BASE OF TRUNK.

BARK INCLUSION AT THE FIRST SCAFFOLD BRANCH UNION.

MINOR DEAD WOOD

MODERATE AMOUNT OF DEAD WOOD

MODERATE AMOUNT OF DEAD WOOD

LEAN TO THE NORTH AND MAY HAVE PARTIALLY FAILED DURING A STORM

ASYMMETRIC TREE LARGE SIZED DEAD WOOD. LARGE WOUND AND DECAY IN BASE OF TRUNK.

OVER-MATURE/SENESCENT LGE DBH, LGE BRANCH FAILURES/STRUCT FAULTS EXCELLENT SOME MINOR FAULTS/LOW-MOD RISK OF MINOR FAILURES EXCELLENT NO EVIDENCE OF STRESS/SIGNS OF NEW GROWTH/WIDESPREAD

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FIELD ASSESSMENT SHEET

PROJECT: Stage 10 Outlook

No	BOTANICAL NAME	COMMON NAME	AGE	HEIGHT	DBH		SPRE	AD [M]		ULE	TREE AZ	STRUCT	HEALTH	
110			CLASS	[M]	[MM]	NORTH	EAST	SOUTH	WEST	OLL		URE		
									-		-			
 72	Corymbia maculata	Spotted Gum	SM	13	150	1	2	2	1	1A		AV	AV	
73	Corymbia maculata	Spotted Gum	SM	13	150	2	0	0	0	4B		Р	Р	1
 74	Corymbia maculata	Spotted Gum	М	20	720	9	8	8	5	3D		F	F	l
					380									١
					400									
 75	Eucalyptus propinqua	Grey Gum	OM	19	520	6	6	6	5	4D		Р	Р	l
76	Corymbia maculata	Spotted Gum	М	17	340	4	3	3	5	3D		F	F	[

* MULTI TRUNKED. BASAL DIAMETER MEASURED IMMEDIATELY ABOVE ROOT FLARE

				LEGEND			
AGE CLASS	Y	YOUNG SAPLING/HAS NOT REACHED 1 ^{III} ADULT FORM	SM	SEMI-MATURE DBH < 300mm/APPROACHING FULL HEIGHT	М	MATURE DBH BET. 300 -700/APPROACH. MAX HT & SPREAD	ОМ
STRUCTURE	Р	POOR NUMEROUS STRUCTURAL FAULTS/HIGH RISK OF SEVERE FAILURE	F	FAIR STRUCTURAL FAULTS PRESENT /MODERATE RISK OF SEVERE FAILURE	Av	AVERAGE SOME MINOR FAULTS /MODERATE RISK FOR MAJOR FAILURE	Ex
HEALTH	Р	POOR SIG. SIGNS OF LOST VIGOUR EG DIEBACK, REDUCED CANOPY	F	FAIR SIGNS OF REDUCED VIGOUR EG LEAF UNDER STRESS, STUNTING	Av	AVERAGE LOCALISED PATCHES OF LOST VIGOUR/NOT WIDESPREAD	Ex
		TO 410 KING STREET NEWCASTLE					

TERRAS LANDSCAPE ARCHITECTS, 412 KING STREET, NEWCASTLE

May 2016

COMMENTS

MAIN TRUNK FAILURE

LARGE AMOUNT OF LARGE SIZED DEAD WOOD.

LARGE DEAD LIMBS OVERHANG ROAD. LARGE WOUND TO THE BASE OF THE TRUNK AND POSSIBLE DECAY AT 8M.

DEAD WOOD AND STORM DAMAGED.

OVER-MATURE/SENESCENT LGE DBH, LGE BRANCH FAILURES/STRUCT FAULTS EXCELLENT SOME MINOR FAULTS/LOW-MOD RISK OF MINOR FAILURES EXCELLENT NO EVIDENCE OF STRESS/SIGNS OF NEW GROWTH/WIDESPREAD 4| P a g e



12 appendix 3 useful life expectancy (ule) categories

	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
Α	Structurally sound trees located in positions that can accommodate future growth.
В	Storm damaged or defective trees that could be made suitable for retention by remedial tree surgery.
С	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
Α	Trees that may only live between 15 and 40 more years
В	Trees that may live for more than 40 years but would be removed to allow the safe development of more suitable individuals
С	Trees that may live for more than 40 years but would be removed during the course of normal management for safety or nuisance reasons
D	Storm damaged or defective trees that can be made suitable for retention 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
Α	Trees that may only live between 5 and 15 more years
В	Trees that may live for more than 15 years but would be removed to allow the safe development of more suitable individuals
С	Trees that may live for more than 15 years but would be removed during the course of normal management for safety or nuisance reasons
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
Α	Dead trees
В	Dying or suppressed and declining trees through disease or inhospitable conditions
С	Dangerous trees through instability or recent loss of adjacent trees
D	Dangerous trees through structural defects, including cavities, decay, included bark, wounds or poor form
Е	Damaged trees that are considered unsafe to retain
F	Trees that will become dangerous after removal of others for the reasons given in A to E

REFERENCE: LINK TREE SYSTEM LTD. JEREMY BARRELL, ARBORICULTURAL JOURNAL 1993, VOL. 17PP. 33-46, 01/03/98



13 appendix 4 extract from AS 4970-2009



Extract from AS 4970:2009

3.1 Tree Protection Zone (TPZ)

The tree protection zone (TPZ) 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 DBH x 12. TPZ = DBH x 12

DBH = trunk diameter measured at 1.4 metres 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 1 metre outside of the crown projection.

3.3 Variations to the TPZ

3.31 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

principals: phillip williams, steve rushworth ABN: 67 129 348 842 phone: +61 2 4929 4926 Fax: +61 2 4926 3069 address: 412 king st, newcastle, nsw 2300 www.terras.com.au

our ref: Extract from AS 4970-2009



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 = (D x 50)^{0.42} x 0.64

where

 $\mathsf{D}=\mathsf{trunk}$ diameter, in metres, measured above the root buttress The SRZ for trees with trunk diameters less than 0.15 will be 1.5 metres.

ATTACHMENT 3 - TRAFFIC ENGINEER'S REPORT



ACN: 164611652 ABN: 14164611652 Suite 10, 265 King Street Newcastle NSW 2300 Ph: (02)4925 7795 admin@secasolution.com.au

7 June 2016 P0620 CP Outlook Estate Letter

North West Residential Pty Ltd C/o City Plan Services Suite 2, 14 Watt Street Newcastle NSW 2300

Attn: Garry Fielding

Dear Garry

Review of access issues, Outlook Estate, Minmi, NSW

Further to the recent email and discussion with Andrew Biller, we have now completed the required scope of work as set out below.

- Review the updated site plans prepared by adw Johnson;
- Review the traffic assessment previously completed by GHD for the project. It is understood that Council
 do not have any concerns with the findings of the report which includes the removal of a new access to
 Minmi Road;
- Discuss the project with the local bus provider, as the new layout would not encourage a public bus to drive through the site to provide access to a bus service. Review the site layout with regard to the provision for access to existing bus services and bus stops that are located on Minmi Road in the vicinity of the subject site;
- Review the alignment and layout of Minmi Road adjacent to the subject site and provide comment to justify the proposed direct access to Minmi Road for Lots 19 to 34 and 1 to 11. This review will look at the existing situation in this location and provide advice on the design requirements to accommodate this direct access;
- Attend a meeting with NCC to discuss the project and discuss the access arrangements for Lots 19 to 34 and 1 to 11, as well as access for buses;

From the above work we provide the following summary of response in support of the amended plans prepared by adw Johnson for the project:

- A review of the GHD report indicates that the traffic demands and assumptions made for the project are appropriate and in accordance with RMS guidelines. The development of Stage 10 under the updated layout allows for a single access to Minmi Road with a 4-way roundabout control. The proposed roundabout will have adequate capacity to cater for the traffic movements in and out of Stage 10 with minimal delays and congestion.
- 2. Discussion held with the local bus provider (Hunter Valley Buses CDC Mr John Meldrum 6/6/16) indicates that they will not look to access the Stage 10 development with a circular route given the single connection to Minmi Road, as this does not provide them with efficient routing for the bus service. This circular route would add 5 minutes or more for the bus route and as the catchment area is not that significant, it would



not be suitable to modify the existing route through Stage 10. Their normal requirement for servicing a new residential area is 500 lots minimum and the Stage 10 development will allow for some 100 lots to be developed only. The bus provider indicated that quality bus facilities with effective pedestrian connectivity should be provided on Minmi Road which would allow for bus use, given that the majority of the houses in Stage 10 could be within 400 metres of this stop. A suitable pedestrian refuge island to enable appropriate crossing of Minmi Road should also be considered.

- 3. The alignment of Minmi Road in the location of Lots 19 to 34 and 1 to 11 is straight and provides for good visibility in both directions for drivers entering and exiting the proposed driveways. The design of these lots will allow for a combined driveway to service two adjacent lots, thereby reducing the number of driveway crossings by 50%. Council advised that the footway along this side of Minmi Road will allow for a combined footway / cycleway and that they expect a high use of this path by a number of users. Whilst it is recognised that there will be potential conflicts between vehicles crossing the pathway and pedestrians / cyclists, this is not considered to be a major safety concern allowing for appropriate design of the pathway within the verge. A similar situation occurs on the opposite side of Minmi Road in this location, where the line of houses fronting Minmi Road have driveway access direct across the footpath. This footpath is used by pedestrians as well as cyclists under 12 years of age and operates in a safe manner. Vehicle speeds entering and exiting the driveways are very low and visibility for pathway users and drivers is good, ensuring that traffic movements can occur in a safe manner.
- 4. A meeting has been held with Newcastle City Council to discuss the project (4th May 2016) and the above issues were raised and discussed with Council. Council indicated that the off road path along the northern side of Minmi Road in this location will be a combined footway / cycleway forming part of their cycleway and that they had concerns with the potential impact of the driveways for Lots 19 to 34 and 1 to 11. Further consideration will be given by Council at the design stage.

Given that the link between Stage 10 and the prior stages cannot be built to a bus standard Council would be led by the view of the bus company on the access options for Stage 10 for bus users.

Please feel free to contact me on 4925 7795, or on 0499 196 100, should you have any queries.

Yours sincerely

Sean Morgan Director

ATTACHMENT 4 - DESIGN GUIDELINES


Stage 10 development guidelines

the OUTOOK

prepared by ADW Johnson July 2016

The Outlook Estate - Stage 10 - Development Guidelines

Relationship with Concept Plan Approval MP06_0031 MOD2

The Outlook Estate - Stage 10 - Development Guidelines (Guidelines) are standalone guidelines prepared under the terms of Concept Approval MP06_0031 Mod 2. Notwithstanding this, the Guidelines have been prepared with consideration of Newcastle City Council's (Council's) Local Planning Strategy (LPS) in which it is proposed to:

'review subdivision section of DCP to facilitate small lot subdivision/housing in new release areas.'

It is intended that these Guidelines will be able to be adopted as site specific controls within the Newcastle Development Control Plan (DCP) 2012 at a future date.

Land to which the Guidelines applies

The Guidelines have been prepared specifically for Stage 10 of the community titled subdivision known as the Outlook Estate, located along Minmi Road, Fletcher, NSW. Stage 10 is identified as Lot 10 in DP 270583. A plan showing the location of Stage 10 (purple hatched area) within the Outlook Estate (solid red outline) can be seen below in Figure 1.



Figure 1: Land to which the guidelines apply

Development to which the Guidelines applies

The Guidelines apply to all development within Stage 10 of the Outlook Estate requiring development consent that involves the subdivision of, or development of, lots with an area greater than 225m².

Applicable environmental planning instruments

The provisions of Newcastle Local Environmental Plan 2012 (LEP) also apply to development applications to which the Guidelines apply to. In the event of any inconsistency between the Guidelines and the LEP, the LEP will prevail to the extent of the inconsistency.

Relationship to Newcastle DCP 2012

The Guidelines identify provisions that may be a departure from provisions contained within the Newcastle DCP 2012. In the event that any inconsistency arises between the Guidelines and Newcastle DCP 2012, the development controls and objectives in the Guidelines will prevail to the extent of the inconsistency.

Depending on the proposed development type, additional provisions within Newcastle DCP 2012 may be applicable. It is up to the proponent to identify which additional provisions are applicable to their development and ensure that these provisions are addressed in development applications.

Associated technical manual/s

Nil

Additional information

Further information regarding the project is contained within the Concept Approval (MP06_0031 MOD 2) for Dan Land at 290 & 302 Minmi Road, Fletcher.

Definitions

A word or expression used in the Guidelines has the same meaning as it has in the Newcastle LEP 2012, unless it is otherwise defined in the Guidelines.

Aims of the Guidelines

- 1. To ensure that the Outlook Estate is developed in accordance with the Concept Approval (MP06_0031 MOD 2) for the site.
- 2. To provide design criteria to facilitate the delivery of lots with an area greater then 225m² within Stage 10 of the Outlook Estate and ensure that quality dwellings can be built upon them.
- 3. To contribute to the projected growth of the Fletcher Precinct (as defined in Council's LPS).

- 4. To provide a range of different lot sizes and built form to appeal to a wide demographic of the population to assist in achieving a more diverse community.
- 5. To provide more affordable lots to encourage first home buyers and downsizers into the area.

1.0 Urban Structure

1.1 Small lot subdivision within the Outlook Estate

1.1.1 Objectives

- 1. To add to, and reinforce, the character of the Outlook Estate and also the wider Fletcher precinct;
- 2. To provide alternate housing options to appeal to a wider market and add to the diversification of the community; and
- 3. To connect the subdivision to the nearby commercial centre to the east of the site at 1 Britannia Boulevard.

1.1.2 Controls

- 1. A revised lot layout for the Stage 10 of the Outlook Estate, generally in accordance with that shown in Figure 2, shall be provided for approval under Section 75W of the Environmental Planning and Assessment (EPA) Act 1979.
- 2. Lot typology, lot frontage, minimum lot size and depth shall be provided in accordance with Table 1.
- 3. Local access road connection points, cycleways and pedestrian pathways, generally in accordance with that shown in Figure 3, shall be provided.
- 4. Road widths shall be as per the masterplan submitted and approved as Concept Approval MP06_0031 Mod 3.



Figure 2: Indicative Lot Typologies Plan





Table 1:Controls for Lot Typology, Lot Frontage, Minimum Lot Size and Minimum
Lot Depth

Lot Typology	Frontage Range	Minimum Lot Depth	Minimum Lot Size	Housing	Storeys	Vehicular Access	Site Cover
Courtyard	9m – 10.99m	25m	225m ²	Detached single dwelling	Single or two	Front ^[5]	60%
Premium Courtyard	11m – 14.99m	25m	275m ²	Detached single dwelling	Single or two	Front ^[5]	60%
Traditional	15m – 19.99m	27m	405m ²	Detached single dwelling	Single or two	Front	60%
Corner	min 15m	27m	405m ²	Attached, Semi detached, Detached single dwelling	Single or two	Front or side	60%
Lifestyle	20m +	30m	600m ²	Detached single dwelling	Single or two	Front	60%

NOTE:

- 1. Lot frontage is the primary variable to determine an allotment's classification for setbacks and building type.
- 2. Where an allotment's depth results in a larger than typical total lot area, the frontage will still be the determining factor to classify setbacks and building type.
- 3. To be assessed as a Lifestyle lot, the allotment must meet both the Minimum Lot Size and Minimum Frontage requirements.
- 4. Battleaxe allotment classification is determined by width. The measurement of the front boundary is to be made at the useable part of the lot.
- 5. Lots fronting Minmi Road with frontages less than 15m will have combined driveways to service two adjacent lots.

2.0 General Residential Development

2.1 Lot typology, lot frontage, minimum lot depth, minimum lot size and site coverage

2.1.1 Objectives

- 1. To reinforce the desired future character of the Fletcher Precinct (as defined in Council's LPS);
- 2. To provide choice in housing to cater for a diverse demographic community; and
- 3. To provide housing that responds to the site's characteristics.

2.1.2 Controls

- Lot typology, lot frontage, minimum lot depth, minimum lot size and site coverage shall be provided in accordance with Table 1 (as provided in Section 1 of these Guidelines).
- 2. Lot typology shall generally be in accordance with **Figure 2** (as provided in Section 1 of these Guidelines).

2.2 Lot type intent and setbacks

2.2.1 Objectives

- 1. To promote housing types appropriate to the lot size, shape and orientation;
- 2. To promote a layout that complements existing development in the area;
- 3. To promote a layout that provides an adequate pedestrian and cycleway network which provides an easily navigable route to the commercial centre to the east (1 Britannia Boulevard);
- 4. To provide adequate residential amenity within the development;
- 5. To ensure that buildings address the street and promote active street frontages;
- 6. To ensure that development enhances the visual character of the street;
- 7. To limit the visual impact of garages on the streetscape;
- 8. To ensure corner buildings address both street frontages; and

9. To ensure privacy for residents and to minimise overshadowing.

2.2.2 Controls

1. Building setbacks, maximum length and height of built to boundary walls, along with maximum garage types and widths, shall be in accordance with **Table 2** (refer to page 10).

Table 2: Controls for Setbacks, Maximum Length/Height of Built to Boundary Walls, Garage Types & Lot Access

	Front Setback		Side Setback					Rear Setback		Garages	
Lot Typology	Habitable Rooms		Built to Boundary		Non Built to Boundary		Max Length and	Habitable			
		Garage	Ground Floor	First Floor	Ground Floor	First Floor	Height of Built to Boundary Wall	Rooms	Garage	Maximum Type	Maximum Width
Courtyard frontage range: 9 – 10.99m	4.5m	5.5m	One side only	1.2m	0.9m	1.2m	Max. 15m long; Max. 3.5m high	3m if dwelling up to 4.5m high, 8m if above 4.5m high	Not applicable	Single/tandem permitted for single storey dwelling, double garage permitted for 2 storey dwelling	3.2m for single storey dwelling and 6.0m for double storey
Premium Courtyard frontage range: 11 – 14.99m	4.5m	5.5m	One side only	1.2m	0.9m	1.2m	Max. 15m long; Max. 3.5m high	3m if dwelling up to 4.5m high, 8m if above 4.5m high	Not applicable	Double	6.5m
Traditional frontage range: 15 – 19.99m	4.5m	5.5m	Not applicable		0.9m	1.5m	Not applicable	3m if dwelling up to 4.5m high, 8m if above 4.5m high	Not applicable	Double	6.5m
Corner frontage range: min. 15m	4.5m	5.5m	Not applicable		0.9m 2.5m (secondary street)	1.5m 2.5m (secondary street)	Not applicable	3m if dwelling up to 4.5m high, 8m if above 4.5m high	Not applicable	Double	6.5m
Lifestyle frontage range: 20m +	4.5m	5.5m	Not applicable		1.5m for lots up to 20m wide, 2.0m for lots > 20m wide	2.0m for lots up to 20m wide, 2.5m for lots > 20m wide	Not applicable	3m if dwelling up to 4.5m high, 8m if above 4.5m high	Not applicable	Double or triple permitted if Garage Width design controls are met	6.5m or 9.0m where the garage opening is setback a further 900mm or orientate with door openings perpendicular to the street

Notes:

1. Setbacks are as stated in the above table unless otherwise dimensioned on an approved plan by Newcastle City Council.

2. Allotments are to be nominated into the above categories at the time of approval by Newcastle City Council on approved subdivision plans.

2.3 Building Height

2.3.1 Objectives

- 1. To ensure a final housing product that responds to its site;
- 2. To minimise overshadowing of adjacent lots and private open space; and
- 3. To ensure solar access to principal living areas and to promote energy efficient design.

2.3.2 Controls

1. Building heights shall be in accordance with the Newcastle LEP 2012.

2.4 Private Open Space and Landscaping

2.4.1 Objectives

- 1. To promote landscaping on individual lots;
- 2. To promote an attractive streetscape; and
- 3. To ensure private open space is useable.

2.4.2 Controls – Private Open Space

- 1. Private Open Space shall be in accordance with Element 7.02 Landscape Open Space and Visual Amenity of the Newcastle DCP 2012 except for Courtyard and Premium Courtyard lots which shall have a minimum area of 24m² and a minimum dimension of 4m.
- 2. Private Open Space shall be directly accessible from a principal living area;
- 3. Covered Private Open Space, such as a patio, shall be contained within the nominated side and rear setbacks.

2.4.3 Controls – Fencing

1. Fencing shall be in accordance with the guidelines set out in the community management statement.

2.4.4 Controls – Landscaping

- 1. The use of native plant species within all forms of landscaping to which the Guidelines apply is encouraged;
- 2. Where the development adjoins an established area, landscaping is to relate to the scale of other elements of the existing streetscape;
- 3. To the fullest extent possible, appropriate vegetation should be used to provide shade to the northerly and westerly elevations of buildings in summer, while allowing sunlight in winter;
- 4. The provision of landscaping to the street frontage of new development is to be substantial, enhance the appearance of the development and assist in streetscape integration;
- 5. Where a 4.5m front setback is nominated, the area between the street front boundary and the building line is to be used as a prime deep soil zone for taller tree planting and will not be included as the nominated private open space. If a private open space area is orientated to the street, it is to be integrated with the primary building line setback and roof form.

2.5 Sloping Sites, Earthworks and Retaining Walls

2.5.1 Objectives

- 1. To design housing types that respond to their lot configuration, including size, shape, slope and orientation;
- 2. To encourage the design of dwellings to conform to the natural land form;
- 3. To minimise cut and fill associated with development of the land; and
- 4. To minimise the use of retaining walls.

2.5.2 Controls

- 1. Retaining walls are to be constructed as part of the subdivision works to enable orderly construction to best suit the topography of the site.
- 2. Earthworks on individual lots following benching and retaining as part of the subdivision works, are to comply with the controls in **Table 3**;
- 3. On sloping sites, if the controls in Table 3 are unable to be achieved, then construction methods other than slab on ground are to be used, such as; pole homes, suspended slabs and reduced building pads to minimise cut and fill. If elevated construction is used, then underfloor services must be screened. All construction must be in accordance with the relevant Australian Standards;
- 4. Slope is taken at the location of the building;
- 5. Retaining walls on individual lots are to be fully located within the boundaries of the subject property and be designed to consider retaining walls constructed as part of the subdivision works;
- 6. Retaining walls forward of the building line to any street, park, open space or are visible from any public realm, cannot exceed 1.0m in height. All other retaining walls cannot exceed 1.8m in height without stepping elements incorporated; and
- 7. Retaining walls must be constructed in natural materials and colours.

Lot Typology	Front Bo	oundary	Side Bo	undary	Rear Boundary		
	Max. CUT height	Max. FILL height	Max. CUT height	Max. FILL height	Max. CUT height	Max. FILL height	
Courtyard	1.0m	1.0m	0.7m	0.7m	1.0m	1.0m	
Premium Courtyard	1.0m	1.0m	0.7m	0.7m	1.0m	1.0m	
Traditional	1.0m	1.0m	1.0m	1.0m	1.0m	1.0m	
Corner	1.0m	1.0m	1.0m	1.0m	1.0m	1.0m	
Lifestyle	1.0m	1.0m	1.0m	1.0m	1.0m	1.0m	

Table 3: Controls for Earthworks and Maximum Heights

2.6 Asset Protection Zone

2.6.1 Objectives

- 1. Development shall be consistent with the requirements of Planning for Bushfire Protection 2006;
- 2. The management of existing vegetation within Asset Protection Zones (APZs) involves both selective fuel reduction (removal, thinning and pruning) and the retention of vegetation. Valuable native trees and shrubs should be retained as clumps or islands;
- 3. Fuel Managed Zones (FMZs) are to be maintained on a regular basis to ensure the management of existing vegetation (mainly grass) to minimise bushfire threat; and
- 4. An emergency access path is to be created within the open space area on the eastern part of the site to provide a linkage between the internal perimeter road and Minmi Road.

2.6.2 Controls

- 1. Lots must comply with the APZs as per the approved Bushfire Management Plan;
- 2. Vegetation that can be retained as clumps or islands without compromising the effectiveness of APZs is to be identified within applications for construction certificate;
- 3. Perimeter roads are to have mountable kerbs to provide extra trafficable width in the event of an emergency;
- 4. The emergency access path is to be designed to enable safe and ready access for fire fighting vehicles; and
- 5. The emergency access path is to be trafficable under all weather conditions. Access to the emergency path shall be controlled to prevent use by non-authorised persons. The emergency access path is to comply with any other requirements for a fire trail, as set out in *Planning for Bushfire Protection 2006*.