

An aerial photograph showing a residential area on the left, a large green field in the center, and a dense forest on the right. A road runs vertically through the center. The word "ARCADIA" is written in white capital letters with a horizontal line underneath, positioned in the upper right quadrant.

# ARCADIA

## Picton High School Landscape Management Plan

April 2021



# CONTENTS

The following outlines a Landscape Management Plan for the new Picton Highschool development in accordance with the SSD 8640. The plan covers management of revegetation and landscaping works on site.

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- 03/ EDUCATION TRAIL
- 04/ REUSE OF DEMOLISHED TREES
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- 07/ WEED MANAGEMENT
- 08/ REVEGETATION MONITORING AND MANAGEMENT
- 09/ PLANNING FOR BUSHFIRE PROTECTION



# 1.0 PROPOSED TREE SIZING | LANDSCAPE MASTER PLAN





# 1.0 PROPOSED TREE SIZING | TREE STATUS



LEGEND

- TREES TO BE RETAINED (Approx 136)
- TREES TO BE REMOVED (Approx 112)
- PROPOSED TREES (Approx 131)








# 1.0 PROPOSED TREE SIZING | TREE SIZE SPECIFICATION



Total number of proposed trees (131) includes 111 specimens that are at least 100L or larger.

TOTAL NUMBER OF PROPOSED TREES 131

	POT SIZE	HEIGHT	QUANTITY
	75L	2 - 2.5m	18
	100L	2.5 - 3.5m	59
	200L	3.5 - 4.5m	27
	400L	4.5 - 6m	25
	750L	20m	3



2.0 NATIVE AND ENDEMIC SPECIES | CURRENT PLANTING SCHEDULE

17-424 PICTON HIGH SCHOOL PLANT SCHEDULE				
CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (h x w) (m)	PROPOSED POT SIZE
TREES & PALMS				
* Asu	Angophora subvelutina	Broad-Leaved Apple	20 x 10	100L
* Am	Acacia mearnsii	Black Wattle	10 x 5	75L
* Ae	Acacia elata	Cedar Wattle	20 x 15	75L
* Eb	Eucalyptus baueriana	Round Leaf Box	20 x 12	200L
	Ec	Eucalyptus cinerea	Argyle Apple	400L (2.5m raised canopy)
* Ev	Eucalyptus viminalis	Manna Gum	30 x 10	400L (2.5m raised canopy)
* Em	Eucalyptus moluccana	Grey Box	30 x 10	400L (2.5m raised canopy)
* Ep	Eucalyptus punctata	Grey Gum	35 x 10	100L
* Ms	Melaleuca styphelioides	Prickly Leaved Paperbark	20 x 5	200L
* MI	Melaleuca linarifolia	Snow in Summer	10 x 5	100L
* Et	Eucalyptus tereticornis	Forest Red Gum	20 x 10	750L
SHRUBS & ACCENTS				
Agv	Anigiozanthos 'Gold Velvet'	Kangaroo Paw	0.8 x 0.8	150mm
As	Acmena smithii	Dwarf Lilly Pilly	4 x 2	300mm
** Cs	Callistemon subulatus	Red Callistemon	1.5 x 1.5	150mm
** Dv	Dodonaea viscosa 'Purpurea'	Hop Bush	1 x 1	150mm
** LCG	Leptospermum 'Copper Glow'	Tea Tree	2 x 2	150mm
** LPC	Leptospermum 'Pink Cascade'	Pink Tea Tree	1 x 2	150mm
** MRG	Melaleuca 'Revolution Green'	Paperbark	4 x 2	150mm
** OCF	Ozothamnus 'Coral Flush'	Rice flower	1 x 1	150mm
Pm	Philotheca myoporoides	Native Daphne	2 x 2	150mm
Ps	Prostanthera scutellarioides	Native mint bush	2 x 2	150mm
We	Westringia eremicola 'Lavender Breeze'	Slender Westringia	2 x 2	150mm
GRASSES & RUSHES				
DC	Dianella 'Coolvista'	Blueberry Lily	0.4 x 0.4	Tubestock
Dt	Dianella tasmanica	Tasmanian Flax-lily	0.7 x 0.7	Tubestock
** Lc	Lomandra confertifolia rubignosa	Crackerjack Mat Rush	0.8 x 0.8	Tubestock
** LLT	Lomandra 'Lime Tuff'	Mat Rush	0.6 x 0.6	Tubestock
PI	Poa labillardieri 'Eskdale'	Tussock Grass	0.5 x 0.5	Tubestock
* Pse	Patersonia sericea	Native Iris	1 x 1	150mm
FERNS & CYCADS				
Aa	Asplenium australasicum	Birds Nest Fern	1.5 x 1.5	150mm
Bsl	Blechnum Silver Lady Fern	Silver Lady Fern	1.5 x 1.5	150mm
Cc	Cyathea cooperi	Tree Fern	5 x 2	1m height
Re	Rhapis excelsa	Lady Palm	3 x 3	150mm
Zf	Zamia furfuracea	Cardboard plant	1x1.5	150mm
EDIBLE PLANTS				
Bsc	Billardiera scandens	Apple Berry	0.5 x 0.5	150mm
Ot	Ocimum tenuiflorum	Native Basil	0.4 x spreading	150mm
Ca	Cymbopogon ambiguus	Native Lemon Grass	0.5 x 0.5	150mm
GROUNDCOVERS & CLIMBERS				
** Hm	Hardenbergia 'Mini Ha ha'	False Sasparilla	0.2 x 1	150mm
* Cg	Casuarina glauca prostrate 'Shagpile'	Cousin It plant	0.2 x spreading	150mm
* Vh	Viola hederacea	Native Violet	0.2 x 0.5	150mm

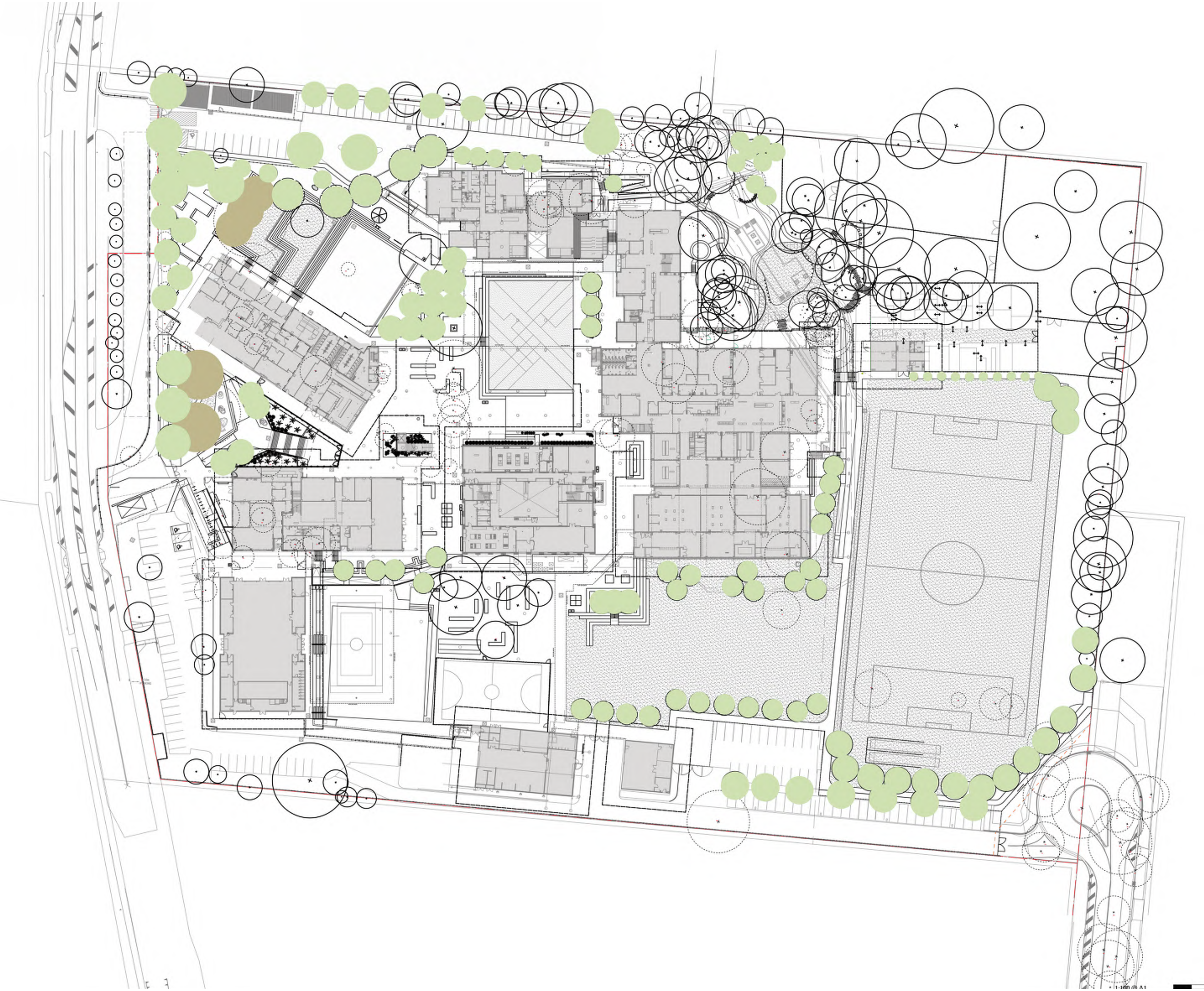
The current planting schedule that outlines mostly native and endemic species to be planted on site. Most planting species derives from recommended plant species in the Wollondilly Shire Council 2016 DCP. The aim of the plants selected to meet the Council’s objective of “...creating a landscape character that is defined by native vegetation...”

LEGEND

- Native plant species to Australia
- Endemic plant species to the region



# 2.0 NATIVE AND ENDEMIC SPECIES | SPECIES STATUS



LEGEND

- Native plant species to Australia
- Endemic plant species to the region



# 2.0 NATIVE AND ENDEMIC SPECIES | SPECIES OF TREE



17-424 PICTON HIGH SCHOOL PLANT SCHEDULE

CODE	BOTANIC NAME	COMMON NAME
TREES & PALMS		
Asu	<i>Angophora subvelutina</i>	Broad-Leaved Apple
Am	<i>Acacia mearnsii</i>	Black Wattle
Ae	<i>Acacia elata</i>	Cedar Wattle
Eb	<i>Eucalyptus baueriana</i>	Round Leaf Box
Ec	<i>Eucalyptus cinerea</i>	Argyle Apple
Ev	<i>Eucalyptus viminalis</i>	Manna Gum
Em	<i>Eucalyptus moluccana</i>	Grey Box
Ep	<i>Eucalyptus punctata</i>	Grey Gum
Ms	<i>Melaleuca styphelioides</i>	Prickly Leaved Paperbark
Ml	<i>Melaleuca linarifolia</i>	Snow in Summer
Et	<i>Eucalyptus tereticornis</i>	Forest Red Gum

Native species to be determined



# 3.0 EDUCATION TRAIL

Where not planted, hydroseeding using locally sourced seed stock is to be undertaken near the Education Trail. Grassmaster Environmental Services, based in nearby Narellan, is providing a native regeneration mix including the species shown on this page.

Application rate is to be min. 20kg/ha.

## Revegetation Area (S.455)



Aristida vagans



Austrodanthonia fulva



Bothriochloa macra



Chloris truncata



Chloris ventricosa



Juncus usitatus



Microlaena stipoides



Poa labillardierei



Themeda triandra



# 4.0 REUSE OF DEMOLISHED TREES



The re-use of tree hollows as noted in SSDA condition D36(d) was not able to be achieved as there were none found on site through demolition. Further to this, tree trunks greater than 25cm in diameter and 3m in length were not able to be incorporated into the design due to conflicts with student safety and use of student spaces. In lieu of this, the majority of native trees have still been able to be used to ‘enhance the site’ by their retention and redistribution as mulch. Three locations in the Agriculture precinct have been identified for felled native tree habitat provision. These will be sourced locally and provide nesting / habitat opportunities, supplementing the nesting boxes.

Native tree stump habitat locations



# 5.0 NESTING BOXES

The landscape will include a number of nesting boxes for various fauna habitation throughout the landscape. To supplement native tree stump habitat and replace these habitat zones within accessible areas, twenty locations have been identified for a variety of nest boxes and insect hotels.

Nesting boxes include the following:



5 x Microbat (Wedge Shape)  
Single chamber with tree mount by Nest Boxes Australia (+61 07 3875 1826)



5 x Kookaburra  
Single chamber with tree mount by Nest Boxes Australia (+61 07 3875 1826)



10 x Native Bee Hotel by Nest Boxes Australia (+61 07 3875 1826)





# 6.0 LOCAL SEED USE

Based on site assessment of the highly modified natural environment of the school campus (pre-development) there was limited potential to attain the required volume of seed from native grass species on site.  
A high proportion of turf / sporting zones, agricultural areas and built out areas led us to pursue hydroseeding utilising a native grass revegetation seed mix in place of this.

Hydroseeding using locally sourced seed stock is to be undertaken near the Education Trail. Grassmaster Environmental Services, based in nearby Narellan, is providing a native regeneration mix - as detailed in D36.(c).

Local soil seed banks have also been maintained with existing ground levels kept natural wherever possible

Seed sourcing from native trees will be undertaken from Indigenous specimens still on site. Refer below diagram showing both seed source locations and seed distribution / application areas

Seed Sourcing Area

Seed Application Zones



# 7.0 WEED MANAGEMENT

All extracts below are from the landscape specification for Picton High School.  
All weed removal and plant maintenance will take careful consideration of native and endemic planting both existing and newly installed. Ensuring that weeds do not occupy remnant vegetation area.

## 2.8 Weed Eradication

Eradicate weeds using environmentally acceptable methods. No glyphosate should be used on site for weed control.  
Regularly remove, by hand, rubbish and weed growth throughout Grassed, planted and mulched areas. Remove weed growth from an area 750mm diameter around the base of the trees in grassed areas. Continue eradication throughout the course of the works and during the planting establishment period.

## 6.5 Spraying

Avoid spraying if ever possible.  
Immediately report to the Project Manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work.  
When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations.  
Record in the logbook all relevant details of spraying activities including:

- Product brand / manufacturer's name,
- Chemical / product name,
- Chemical contents,
- Application quantity and rate,
- Date of application and location,
- Results of application, and
- Use approval authority.

## 6.10 Irrigation and Watering

Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy and vigorous growth, adjust and rectify as required.  
Provide additional watering, if necessary.

## 6.11 Erosion Control Measures

Where necessary, maintain the erosion control devices in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary.

TABLE	ACTIVITY	FREQUENCY						ACTION
6	Weed and rubbish removal			2W				Inspect and remove immediately upon observation. Leave no waste on site. Dispose of waste material at a designated waste disposal site.
8	Spraying			2W				Inspect every 2 weeks and action as necessary. Do not spray if other non-chemical methods will satisfy the need to remove insects. Spray for disease control only when absolutely necessary.





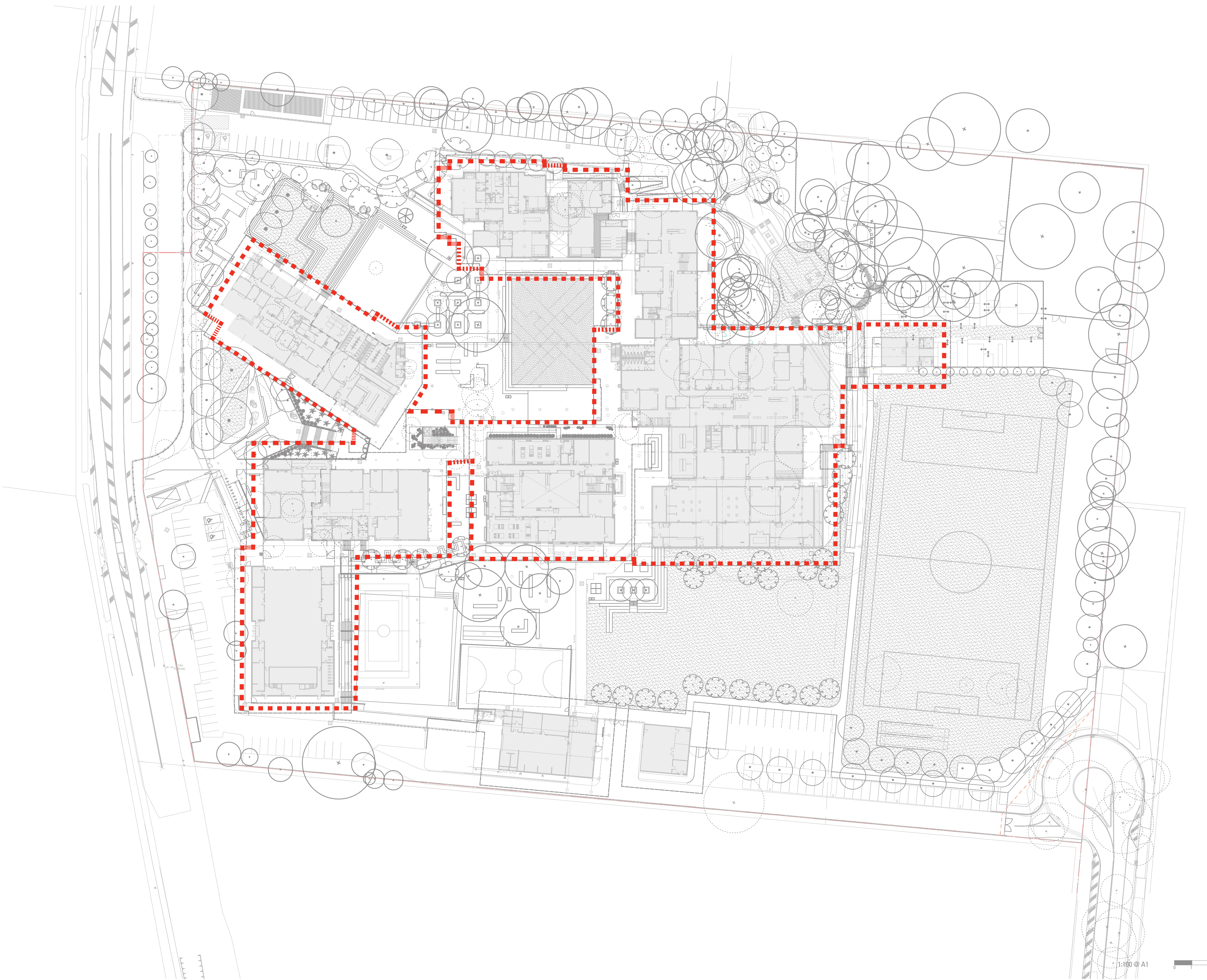
# 8.0 REVEGETATION MONITORING AND MANAGEMENT

The following extracts from the landscape specification (6.15 Maintenance Schedule) describe the steps taken to monitor and measurements to maintain and manage revegetation and landscape works.

2	Plant replacement			2W		M		Inspect and replace failed plants within 2 weeks of observation of failure. Match species, size (original) and location of new with old.
7	Pruning			2W				Inspect every 2 weeks and prune as necessary to remove dead wood, improve plant shape and promote healthy vigorous new growth.
8	Spraying			2W				Inspect every 2 weeks and action as necessary. Do not spray if other non-chemical methods will satisfy the need to remove insects. Spray for disease control only when absolutely necessary.
10	Planting and fertilising			2W			3M+	Inspect every 2 weeks and remove spent flowers and dead stalks as they become apparent. Fertilise gardens every 3 months or other frequency in accordance with fertiliser manufacturer’s directions.
11	Watering	D		2W				Water when and where necessary every day at site and at least every 2 weeks generally. Do not allow soil and plants to dehydrate. Allow for prolonged rain, windy and dry periods. Water in the early morning or late afternoon to avoid excessive evaporation during the heat of the day.
12	Mowing, top-dressing and edging			2W		M	6M+	Summer fortnightly. Winter monthly. Top-dress 6 monthly.



# 9.0 PLANNING FOR BUSHFIRE PROTECTION



## Compliance

The landscape design complies with the principles of Appendix 5 of the Planning for Bush Fire Protection 2006 in the following aspects:

- A5.2. Principle of Protection.  
Setback of trees from the building form at 5m in order to allow the foliage to not fall onto the roof and fill gutters/downpipes and reduce the potential of a fire hazard.
- A5.4 Vegetation Management.  
Generally planting has been designed as lower forms of native and endemic planting. Trees are kept at a 5m min distance from the building line and the intended maintenance of the planting specified aims to reduce leaf litter and opportunity for combustability.
- A5.5 Maintenance of Property.  
The Landscape Specification 6.15 Maintenance Schedule and Part 12 specifically addresses varying level of maintenance according to seasons. For summer the maintenance required is greater than during winter months - with prevelance to the nature of bushfires.

## LEGEND

 5m min Offset

NOTE: The entire project site is to be treated as an APZ.



9.0 PLANNING FOR BUSHFIRE PROTECTION



Compliance

The landscape design complies with the principles of Appendix 5 of the Planning for Bush Fire Protection 2006 in the following aspects:

- A5.3 Principles of Landscaping.  
Planting species used have come from the recommended plant lists provided by the Wollondilly Shire Council 2016 DCP as recommended in A5.3.A Vegetation Choices.

SHRUBS & ACCENTS		
Agv	Anigiozanthos 'Gold Velvet'	Kangaroo Paw
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* Vh	Viola hederacea	Native Violet

\* Matches list of recommended plant species for the Wollondilly Shire Council 2016 DCP  
\*\* Matches same genus of recommended plant species for the Wollondilly Shire Council 2016 DCP

LEGEND

- Education Trail Remnant Vegetation
- Mixed Native and Endemic planting



ARCADIA