

## Site

MARIST COLLEGE ASHGROVE



## **Proposal**

Ministerial Infrastructure Designation Proposal

## Approvals

Item 6: Education facilities

# ENVIRONMENTAL ASSESSMENT & CONSULTANTION REPORT

September 2021

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#### 1 INTRODUCTION

#### 1.1 Proposal Outline

On behalf of the Trustees of the Marist Brothers Trading as Marist College Ashgrove, we submit herewith a Ministerial Infrastructure Designation proposal in accordance with Section 36.3 of the Planning Act 2016. The application applies to land at the following addresses-

- 182 Frasers Road, Ashgrove
- 82 Moola Road, Ashgrove

In accordance with Chapter 2, Part 5 of the Planning Act 2016 ('PA'), the College seeks to designate the land 'subject land' for Educational Facilities (Schedule 5, Section 13, Part 2, Item 6 of the Planning Regulation 2017 ['PR']).

This Environmental Assessment and Consultation ('EAC') has been prepared in accordance with Chapter 7 of the Minister's Guidelines and Rules ('MGR').

This EAC is accompanied by the following plans and specialist reports.

Document/Plan/Report	Consultant	Location
College Master Plan	Phorm Architects	Appendix A
College Core Phases Plan	Phorm Architects	Appendix B
DSDILGP Pre-lodgement minutes	DSDILGP	Appendix C
Traffic Engineering Assessment Report	BMC Consulting	Appendix D
Bushfire Assessment	S5 Consulting	Appendix E
Ecological Assessment	S5 Consulting	Appendix F
Survey Data	Phorm	Appendix G
VRP – Vegetation Retention Plans	S5 Consulting	Appendix H
Services and Engineering Letter	Bligh Tanner	Appendix I
Stakeholder Contact Information and Engagement	Urbicus	Appendix K
Stakeholder Information Pamphlet	Urbicus	Appendix L

#### Table 1-1 Consultants Supporting Information

In accordance with Chapter 7 of the MGR this EAC will be updated and finalised following consultation and notice from the Minister.

Section 6 of this report sets out matters that the Infrastructure Proposal must be considered in the context of Chapter 8 of the MGR. The MGR states that the plans and descriptions of proposed uses, their locations on the site and broad impacts can be general in nature and do not need to include significant technical detail. Similar to that of a master plan for the College.



#### 2 THE SITE AND COLLEGE CONTEXT

#### 2.1 Site Overview

In the broader context the site is located in the suburb of Ashgrove, to the north of Enoggera Creek and to the west of Dorrington Park in the western suburbs of Brisbane. The subject site lies on at the western end of Frasers Road. Given the CF5 Community facilities (Education purpose) zoning of the subject site, it is characterised by educational activities. This area of Ashgrove is characterised by a mixture of activities. The majority of land is dedicated to residential uses, primarily low density residential, with Public Park and sporting fields. The Enoggera Army Barracks adjoins the subject site to the north.

The land is comprised of a number of separate holdings located at the following addresses, herein referred to as the subject sites.

#### Site Details

Address: 182 Frasers Road, Ashgrove and 82 Moola Road, Ashgrove

Lot Description: Lot 364 on SP272699

Classification: CF5 Community facilities (Education purpose)
Local Area Plan: Ashgrove-Grange district neighbourhood plan

Enoggera district neighbourhood plan

Site Area: 396,004m<sup>2</sup>

Registered Landowner: Trustees Of The Marist Brothers C/- Marist College Ashgrove

#### **Location Context Table**

Distance to Brisbane City 8.1 km (approx.)

Nearby Roads and Arterial Routes O'Connell Place – North to the site

Moola Road – East to the site Glenlyon Drive – West to the site

Nearby Services Ashgrove State School

Newmarket State School

St Andrew's War Memorial Hospital Royal Brisbane and Women's Hospital

Exhibition Train Station

Parks/Open Space Fehlberg Park

Hyde Road Park

#### Table 2-1 Location Context Table



Figure 2-1 Site Location
Source: Google Maps





Figure 2-2 Aerial Photograph
Source: BCC eBiMap

#### 2.2 Site and College History

The land has housed educational facilities / the College Campus for approximately 80 years. The college has expanded and grown over that period with bulk of the buildings associated with the learning areas located in the western portion of the site.

Based on the College's Strategic Plan Phorm Architects and Urbicus Planners are assisting the College with the Master Planning of the Campus to facilitate the following within the next 6 – 15 year period. Essentially the first 4 forms provides the ability to increase the Primary School numbers by 180 students with the total student numbers on campus to be approximately 1900. The proposal will also see the Carrick Wing (Senior Classrooms) to be refurbished to 21st Century standards and the introduction of new Library. This is spelt out below.

Site	Desc	riptio	n Tab	ole
------	------	--------	-------	-----

**Existing Use:** Marist College Ashgrove

**Area:** 396,004m<sup>2</sup>

Site Frontage: 15m to Moola Road & 50m to Frasers Road

Access / Cross Over: Yes

**Road Hierarchy:** Moola Road – Neighbourhood Road

Frasers Road – District Road

Footpath: Yes – concrete

Street Trees Nil

Easements: Yes
Flooding: Yes
Other issue: N/A

#### Table 2-2 Site Description Table



**Aerial Photo** *QLD Globe* Figure 2-3
Source:



Figure 2-4
Source: **2017 Aerial Extract** *BCC Interactive Mapping* 



#### 2.3 Urban Services and Infrastructure

The subject allotment is connected to all urban utilities. **Figure 2-5** shows that all essential services are currently accessed or have the ability to be provided to the site.

Urban Services	
Water Supply	Water is available in Moola Road. Currently a water meter exists in Moola Road and will be maintained.
Sewerage Reticulation	Sewerage reticulation is located on Moola Road
Stormwater Discharge	Stormwater runoff is discharged to Enoggera Creek
Road Hierarchy	Moola Road is identified as a Neighbourhood Road. Frasers Road is identified as a District Road.
Other Services	All other services e.g. Telstra, Gas, Electricity, Pay TV are readily available.

Table 2-3 Urban Services Assessment



Figure 2-5 Existing Services Infrastructure

The site appears to be well serviced with key utilities including water supply, sewer and stormwater Network capacity assessments will need to be undertaken in due course, however it is unlikely that the modest increase in demands on those networks would trigger the need for any external upgrades.



#### 2.4 Infrastructure Charges

The subject is within the Priority Infrastructure Area under Council's Adopted Infrastructure Charges Resolution. However, as this proposal is access under the MID process it is understood the proposal will not be subject to Infrastructure charges for the additional gross floor area.

#### 2.5 Site History & Previous Approvals

Application	Activity	Level	Permit	Decision	Date	
A001622270	Op Works	Code	Operational Works	Granted	18/06/2004	
A001622271	Op Works	Code	Operational Works	Granted	18/06/2004	
A001622272	Op Works	Code	Operational Works	Granted	04/05/2005	
A001622269	Education Purposes	Impact	Material Change of Use	Granted	28/05/2007	
A002696024	Education Purposes	Code	Building Works	Granted	13/01/2010	
A002780343	Education Purposes	Code	Building Works	Granted	12/05/2010	
A002842953	Heritage Place - Extension	Code	Building Works	Granted	07/07/2010	
A003613382	Heritage Place - Adjoining	Code	Building Works	Granted	27/05/2013	
A003998013	Extension, Educational Establishment	Code	Material Change of Use	Granted	31/03/2015	
	Filling and/or Excavation	Code	Operational Works		29/06/2017	
A004455061	Educational Establishment	Code	Material Change of Use	Not Processed	29/00/2017	
	Heritage Place (LHP), Educational Establishment, Demolition	Impact				
A004769219	Educational Establishment, Heritage Place (LHP)	Code	Building Works	Granted	09/01/2018	
	Local heritage place	Referral Response				

#### 2.6 Pre-lodgement Meetings

Department of State Development, Infrastructure, Local Government and Planning - DSDILGP Pre-lodgement meeting

Meeting date: 26 February 2021

Attendees: • Caitlin Pozzi and Paul Beutel (the department)

Mark Kierpal (Urbicus)

• Paul Hotston (Phorm Architecture)

Refer to Appendix C DSDILGP Pre-lodgement minutes which outlines the support for the proposal via the MID process and application requirements for proceeding.

#### **Brisbane City Council**

#### Seeking preliminary feedback from the relevant local government – BCC (20th May 2021)

A Pre-lodgement request and meeting was conducted with Brisbane City Council on the 20<sup>th</sup> May 2021. The material supplied is included in Appendix D – BCC Request for Pre-lodgment. The meeting was conducted via teams and was attended by:

- James Heading Senior Urban Planner BCC
- Saskia Richardson Urban Planner BCC
- 2 x Council Traffic Engineers
- Paul Hotston Architect Phorm Architects
- Mark Kierpal Urban Planner Urbicus

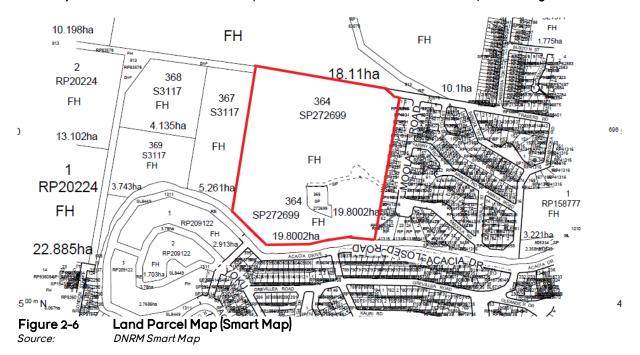
The proposal was explained to the Council officers and generally understood. Council's items raised (key issues) revolved around the following:

- Traffic and car parking
- Vegetation and Waterway / Biodiversity Considerations
- Other minor / amenity matters

The matters outlined in the prelodgement meeting have address in this application.

#### 2.7 Easements

The subject allotment is encumbered by an easement. Refer to the Smart Map below Figure 2-6.



#### 2.8 Flooding

The BCC Floodwise Property Report indicates that the land is subject to flooding being the Creek/waterway flood planning area and the Overland flow flood planning area.





Figure 2-7 FloodWise Property Report Extract
Source: BCC Flood Awareness Mapping



#### 3 THE PROPOSAL

Urbicus acts for the Trustees of the Marist Brothers Trading as Marist College Ashgrove in seeking a designation of the subject site for an Education Establishment in accordance with a masterplan.

It must be outlined that in concert with the College, Phorm Architects and Urbicus have undertaken a comprehensive assessment of the College's strategic requirements and have view the proposal as a full Master plan proposal, not merely introducing buildings for classrooms. As a collective we have looked towards fostering a great learning environment in line with the College's Learning Framework. New buildings and built form must be considered outcomes and well-designed learning environments along with the existing campus

This includes creative, unique, inspiring, motivational, and effective community learning environments. A Master Plan should facilitate collaborative interchanges in planning, design and implementation of school designs intended to empower students, youth, parents, teachers, and surrounding community.

Working alongside with the College's Core Leadership Team (CLT) we considered the following:

- Insights into commercially viable, cost effective and environmentally conscience design measures for potential new works and density planning.
- Focus upon the creation of consolidated and well-designed sequence of interstitial Public spaces and improved inter-connectivity for the Campus.
- Precinct Planning and Design Quality Principles.
- Urban Planning requirements
- Review of Planning matters and overlay considerations

The proposal is also clarified in the Architectural Statement below.

#### **Design Quality Principles:**

The CLT understood it was important to promote and champion good design processes and outcomes for the College. The proposal has developing outcomes to support the delivery of excellent learning environments.

These Principles are underpinned by the following Design Qualities:

- Context, built form and landscape
- Sustainable, efficient, and durable
- Accessible and inclusive
- Health and safety
- Amenity and Aesthetics
- Flexible and adaptive
- Cost effectiveness

This proposal provides that outcome and is more detailed below.



#### Architectural Statement – as prepared by Phorm Architects

Marist College Ashgrove have engaged Phorm architecture + design and Urbicus Urban Planners to design and secure a Masterplan for the Campus to reflect the College's Strategic Plan and continuing role as an exemplary provider of Catholic Education for young men for over 80 years.0

The Masterplan documents provide both a mid-term and long-term strategic framework of reference to consolidate and strengthen the Identity of the College through a co-ordinated approach to its Built Form, Public Space and Facilities Planning.

Two Masterplans have been established as benchmarks, coinciding with significant upcoming years within the history of College, firstly for 2030+ |Tower Building Centenary| and secondly for 2040+ |College Foundation Centenary|.

The Masterplans identifies a number of precincts, building upon existing facilities, operating across the Campus and presents them as colour coded territories. The Masterplan makes a clear distinction between the Upper Campus (Teaching, Administration, Assembly) and Lower Campus (Boarding Services, Ancillary Facilities, Reception Centre and Sports Fields).

All Proposed Works in the 2030+ Masterplan and current M.I.D Submission are exclusively contained within the College's Upper Campus and distanced from all boundaries and neighbouring residents.



Figure 3-1 Upper Campus Plan extract



The Masterplan focusses on strategic retention and refurbishment of existing building stock in a 'Care and Repair' approach to ensure minimal expansion of the existing built footprint and limit potential impact on the available green space.

The first intended Phase of Works of the 'College Core' will see significant investment by the College directed towards creating more healthy, sustainable, and inclusive teaching environments across the primary, middle and senior learning. Introduction of a new co-located Learning Hub elevated to link existing GLA blocks within the Campus. The inclusion of a new Primary School Building integrates an incremental increase to the College student body of 10 percent, received principally within the Primary cohorts of years 5 and 6.

The second Phase of Works will introduce a substantial multi-functional College Assembly Building Infrastructure to the Site. This Building will afford 'whole of School' internal gatherings and performance space as well as dividing into separable sporting spaces and examination halls. Built over the existing footprint of former site accommodations, the College Assembly Building will allow for future expansion and flexible adaptive programming over time.

With each individual new building or refurbishment, the architecture and planning will seek to address concurrent issues of improving public space, accessibility, and wayfinding. Each progressive project utilised to improve people movements and connectivity throughout the whole of the Campus order.

Paul Hotston, Phorm Architects

#### 3.1 Type of Infrastructure

The ministerial designation is proposed to facilitate the efficient allocation of resources and enable the timely supply of the community infrastructure. It is proposed to designate the subject land for the following types of infrastructure as per Schedule 5, Section 13, Part 2 of the PR:

• Item 6: Education facilities

It is proposed that the subject land will be used to provide:

• an education for students from primary to secondary and including providing before and after school care (that being, the ordinary operation of the School).

The local categorising instrument (the Brisbane City Council planning scheme 'City Plan') identifies an appropriate zoning for use, being the Community facilities (Education purposes).

#### 3.2 Nature, Scale and Intensity of Infrastructure and Each Use Proposed

The proposal seeks to upgrade and extend the existing educational infrastructure on the site.

Based on the College's Strategic Plan 2020 – 2030 the College is improving and enhancing its Learning and Teaching Facilities with the Master Planning of the Campus to facilitate the following within the next 6 - 15 Year period. The Master Plan is set to increase the colleges education Primary School Precinct and provide the ability to increase student numbers by 10% in the coming years.



The proposal will also see the improvement of facilities, recycling and upgrading existing Classrooms to be refurbished to 21st Century standards and other ancillary structures. In short, the proposal facilitates:

- Increase in student numbers (10%)
- Focus on upgrading Learning and Teaching Facilities
- College Core Precinct / Upper Campus
  - o New Primary School Building
  - Upgrading existing Senior Learning Classrooms
  - New Learning Hub
  - Campus Green and passive recreational spaces
- New College Assembly Building
- Ancillary Buildings
- Review and improvements of traffic movements and access to the College
- Other modest improvements and upgrades

As outlined in the plans, the bulk of the alternations and new builds are strategically located in the western portion of the. The campus green precinct and surrounds. The new primary building flanks the existing campus in the northwest portion of the site, interfacing with the Enoggera Army barracks and as such much of the proposal does not interface with existing residential housing stock. Combine this with the modest increase in students it is considered that the extensions to the College minimises interfaces with residential zoned land.

Furthermore, we make the following observations of the proposal, in support of the MID:

- Low Risk Proposal in terms of Campus Fundamentals e.g. existing campus, locality and contextual aspects.
- Low / Medium Risk site in terms of Community Consultation, Bushfire / Vegetation matters, Access and Traffic considerations. Detailed assessments are included in the appendices.
- Increase in student numbers is modest and manageable. 180 additional students or 10% increase.
- Budgets represented qualifies for the infrastructure program. Potentially \$40 \$60 million. An
  extract of the Construction Breakdown is outlined below in Figure 3-2.
- On balance, a clear candidate application to qualify for endorsement for the MID process.

A visual breakdown of the various components is demonstrated in the plan extracts below and Appendices A & B. A breakdown of the plan number and type are outlined below.

Figures 3-3 and 3-4 illustrate the existing and proposed Campus Site plan.

**Figures 3-5 and 3-11** illustrate the potential chronological outcome of the proposed building program over the next 5 -10 years.



Plan number	Plan Type Plan Type
000	SITE PLAN & COVER SHEET
010	EXISTING SITE PLAN
015	EXISTING ACCESS PLAN
016	PROPOSED ACCESS PLAN
020	SITE DEMOLITION PLAN
050	PROPOSED DEVELOPMENT SITE PLAN
055	PROPOSED SITE REFERENCE PLAN 1
060	PROPOSED BUILDING HEIGHT REFERENCE
100	UPPER CAMPUS PRECINCT PLAN
120	PROP. PRIMARY SCHOOL BUILDING
130	CARRICK WING ALT. + ADDITION
130	PROP. LEARNING HUB BUILDING
140	CHAMPAGNAT CENTRE ADDITION
150	SCIENCE BUILDING GLA ADDITION
200	ART WALK PRECINCT PLAN
210	MUSIC ROOM ALT. + ADDITION
220	PROP. MUSIC ANNEXE BUILDING PLAN
300	TOWER WALK PRECINCT PLAN
310	DINING COMPLEX ALT. + ADDITION
320	PROPOSED CAR PARK
500	OVAL 01 PRECINCT PLAN
510	PROP. BR CYPRIAN PAVILION
600	COLLEGE ASSEMBLY PRECINCT
610	ASSEMBLY COMPLEX



06.09.2021

ISSUE A - APPLICATION

Additional   Add	BUILDING BREAKDOWN										STEELE WROBEL Report 01.0
Respond   Mark Build   Addition											·
Application   Marketon   Market	ampus Green Precinct										
PARKET	uilding	New Build		Associated Demolition		Existing GFA - m <sup>2</sup>		Total GFA	Storeys	Brief Desciption	Estimated Construction Cost (EXCL GST)
Part	rimary School Stage 1	·	Attoración	Minor Demolition	1100		3200	3200		12 GLA's - New Primary School. 2/3 Storey Construction Over Podium	\$ 9,890,00
Total of Control of Co			· ·			1950					
1	arrick Wing (West)	+ *	· ·			1350			3	Alteration to Existing learning area (2 GLAs)	
Part	ampus Green (Phase 1)		<b>√</b>		6500	5000	NIL	-			\$ 4,810,0
	uckshop Facilities				135	135	15	150	1	Relocation of existing Tuckshop facility	\$ 640,0
PART	ollege Assembly Precinct										
Procedure   Proc	he Tower Walk Precinct		Addition /	T	Evieting / Proposed	I	New / Additional GEA	1	T		Fetimated Construc
Page	uilding	New Build		Associated Demolition	Footprint - m <sup>2</sup>	Existing GFA - m <sup>2</sup>	m²	Total	Storeys	Brief Desciption	Cost (EXCL GST
Mary Processor   Mary	ar Park	<b>✓</b>			1050			1050	0	26 Car Parking Space for Staff & Visitors	<del></del>
Residency   New Build   Additional   Associated Denotition   Stating (Physiolet 1 of 1950   1950	imary Drop off zone	· ·			100			100	0	Primary Drop off zone	1,020,0
Page	t Walk Precinct		Addition (		Eviating / Drangood		New / Additional CEA				
Mode	•	New Build		Associated Demolition	Footprint - m <sup>2</sup>		m²				
## 2005 - 2007  ## 2005 - 2007	e Rosey Music & Art Centre		· ·		560	1500	190	1690	3	Music Room additions	\$ 450,0
## 2005 - 2007  ## 2005 - 2007	val 1 Precinct										
2005 - 2007   2007	DULLOT O									TOTAL	L[\$ 36,410,00
New Build   Associated Denoition   Esting   Proposed   Foliage   Color   Foliage											
Associated Demoltion   Project   P	ampus Green Precinct										
Post   Part   Proposed   Part   Post   Part   Post   Part   Part   Post   Part   Par	uilding	New Build		Associated Demolition		Existing GFA - m²		Total GFA	Storeys	Brief Desciption	
New Build   Advantation   Associated Demoition   Scialing   Proposed   Program - Associated Demoition   Scialing   Program - Associated Demoition   Scia	•	11011 20110	Alteration	100000000	Footprint - m²						S 4.630.0
New Build   Associated Demolition   Existing   Proposed   Existi					-		-		-		-1,000,0
Part   College Assembly Complex   V			Addition /	T T	Existing / Proposed		New / Additional GEA				
College Assembly Complex	uilding	New Build		Associated Demolition	Footprint - m <sup>2</sup>	Existing GFA - m <sup>2</sup>	m <sup>a</sup>		Storeys	-	
Contract   Total   T		· ·		Demolish existing Br. Andrews Villa & Trade Training		1200			2		\$ 18,420,0
Total   Storage   Control   Contro	College Assembly Complex									Examination Centre / STEM Building (Staged)	\$ 17,780,0
Integration   New Build   Afteration   Associated Demoition   Footprint - m'   Existing GFA - m'   m'   (rotal   Story)s   Brief Description and addition   During Complex   5   5,770, and the proposed   5   5,770, an		✓			1300	0	1300	1300	1	Car Park / Gymnasium (Staged)	
Integration   New Build   Afteration   Associated Demoition   Footprint - m'   Existing GFA - m'   m'   (rotal   Story)s   Brief Description and addition   During Complex   5   5,770, and the proposed   5   5,770, an	he Tower Walk Precinct								,		
Part	luilding	New Build		Associated Demolition		Existing GFA - m <sup>2</sup>		Total	Storeys	Brief Desciption	
Partial Demolition of existing BR, Andrews Villa   Partial Storeys   Part	lining Complex				1300	2000		3000	2		\$ 5,770,0
PHASE 3 2028 - 2030    Proposed   Existing   Proposed   Existing   GFA - m'   New   Additional   GFA - m'   New   Primary School   Estimated Construct   Cost (EXCL GST)	ower Walk	· ·		Partial Demolition of existing BR. Andrews Villa						Paved Outdoor Walk Way	\$ 2,270,0
PHASE 3 2028 - 2030    Proposed   Existing   Proposed   Existing   GFA - m'   New   Additional   GFA - m'   New   Primary School   Estimated Construct   Cost (EXCL GST)	ut Walk Precinct										
PhASE 3   2028 - 2030   2028	oval 1 Precinct										
Section   Processed   Proces										TOTAL	L \$ 48,870,0
## Precinct    Modition   New Build   Addition   Associated Demolition   Estisting   Proposed   Footprint - m'   Footprint - m'   Total   Storeys   Brief Desciption   Estimated Construct Cost (EXCL 637)											
Addition / Associated Demolition   Existing / Proposed Footprint -m'   Existing GFA -m'   New / Additional Multi Purpose Space   S 14,350.0   New											
Main   Addition   Ad		New Build		Associated Demolition		Existing GEA : m²	New / Additional GFA	Total	Storeur	Brief Description	
Manage   Addition	•		Alteration			Existing GrA - III	m²				
Minor Demolition   1900   1900   660   2560   1 + Mic   Additional Contract O place   \$ 2,670,0	imary School Stage 2 - GLA imary School Stage 2 - Admin Library			Demolition of existing Primary School						New Primary School Library and Admin	\$ 8,940,0
Minor Demolition   1700   3400   NIL   3400   2   Convert GLA - Science Laboratories   \$ 1,393,0	ym (Champagnat Centre)		V		1900		660	2560	1 + Mez	Additional Covered Outdoor Space	
Existing / Proposed   Footprint - m'   Existing / Proposed   Footprint - m'   Total   Storey   Brief Desciption   Storey   Construction   Storey   Brief Desciption   Storey	cience		· ·	Minor Demolition	1700	3400	NIL	3400			
Idding	impus Green (Phase 3)				6500	5000			1 0		5,240,0
Idding	ollege Assembly Precinct										
Ideng	rt Walk Precinct										
Addition   Atternation   Addition   Atternation   Section   Sect	uilding	Addition /			Existing / Proposed	Existing GFA - m <sup>2</sup>		Total	Storevs	Brief Desciption	
	-					-				-	\$ 7.150.0
										process of the second of the s	7,100,0
	val i procinct	Addition /		T	Existing / Proposed	E-1-11 0E4	New / Additional GFA		T	P. (2)	
TOTAL S 39.743.0	-				Footprint - m <sup>2</sup>	_	m <sup>2</sup>	1			
Urbicus <b>Waltin</b>	R Cyprian Pavilion		· ·		560	1250	1250	2500	2	Additional Multi Purpose Space	\$ 14,350,0
Urbicus <b>Waltin</b>	UTHOR			4.1						TOTAL	L \$ 39,743,00
	Urbicus										

Figure 3-2 Marist Construction Breakdown

URB20-039 Marist College Ashgrove





Figure 3-3 Existing Site Plan



Figure 3-4 Proposed Development site plan





Figure 3-5 Existing Primary School



Figure 3-6 Phase 1 New Primary School



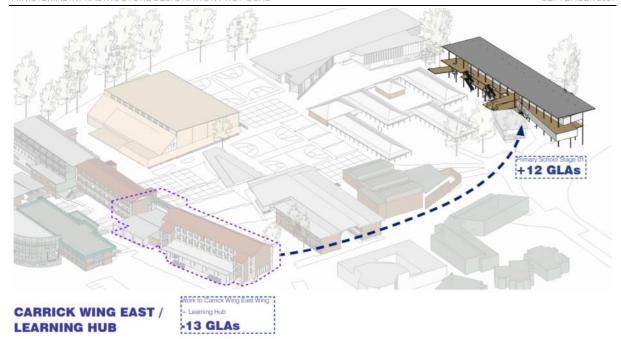


Figure 3-7 Carrick Wing Upgrade



Figure 3-8





Figure 3-9 New Primary Cohort

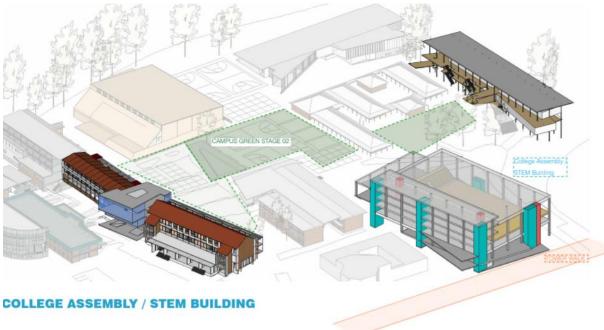


Figure 3-10 College Assembly/Stem Building



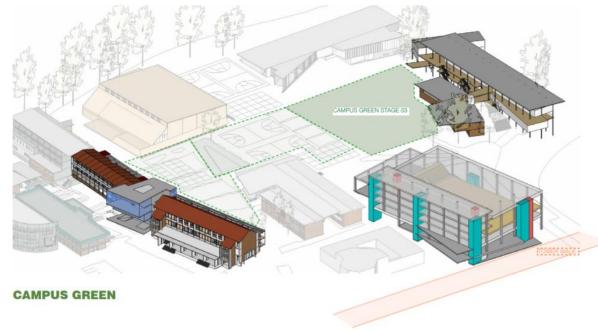


Figure 3-11 Campus Green



#### 4 REQUIREMENTS OF THE PLANNING ACT 2016

Part 5 of Chapter 2 of the Planning Act 2016 (the Act) outlines the process and requirements for the designation of infrastructure. Section 35 of the Act states that the Minister or a local government may identify premises for infrastructure prescribed by the Planning Regulation 2017 (the Regulation). Schedule 5 of the Regulation prescribes the types of infrastructure which may be designated. Educational facilities are listed as a type of infrastructure under the schedule.

#### 4.1 Section 36 of The Planning Act 2016

Section 36 of the Act includes criteria for the designation of premises for the development of infrastructure. The following table provides comments specific to the proposed Ministerial designation against the 'criteria for making or amending designations'.

Table 1 – Assessment of Criteria under Section 36 of the Act

	CRITERIA	RESPONSE
(1)	To make a designation, a designator must be satisfied that—  (a) the infrastructure will satisfy statutory requirements, or budgetary commitments, for the supply of the infrastructure; or  (b) there is or will be a need for the efficient and timely supply of the infrastructure.	Satisfied - Refer to section 5 of this report
(2)	To make or amend a designation, if the designator is the Minister, the Minister must also be satisfied that adequate environmental assessment, including adequate consultation, has been carried out in relation to the development that is the subject of the designation or amendment.	Satisfied – This EAC has been prepared to provide an assessment of the proposed designation and is available during consultation.  Consultation will be carried out for 20 business days as required by the Department of State Development, Infrastructure, Local Government and Planning - DSDILGP and the EAC will be finalised following consultation and notice from the Minister.
(3)	The Minister may, in guidelines prescribed by regulation, set out the process for the environmental assessment and consultation.	Satisfied - This EAC and consultation is prepared/carried out in accordance with the Chapter 7 of the MGR.
(4)	The Minister is taken to be satisfied of the matters in subsection (2) if the process in the guidelines is followed.	Satisfied - Refer to above comments.
(5)	However, the Minister may be satisfied of the matters in another way.	No comment required.
(6)	Sections 10 and 11 apply to the making or amendment of the guidelines as if the guidelines were a State planning policy.	No comment required.
(7)	To make or amend a designation, a designator must have	ve regard to—
(a)	all planning instruments that relate to the premises; and	Satisfied - Planning instruments relevant to the subject land are discussed within the sections of this report.
(b)	any assessment benchmarks, other than in planning instruments, that relate to the development that is the subject of the designation or amendment; and	Satisfied - There are no known other assessment benchmarks.
(c)	if the premises are in a State development area under the State Development Act—any approved development scheme for the premises under that Act	Satisfied - There are no known other assessment benchmarks.
(ca)	if the premises are in a priority development area under the Economic Development Act 2012 —any development scheme for the priority development area under that Act; and	Satisfied - The subject site is not located in a Priority Development Area.
(d)	any properly made submissions made as part of the consultation carried out under section 37; and	Satisfied - Properly made submissions will be considered as part of the final EAC.
(e)	the written submissions of any local government.	Satisfied - Submissions from the local government will be considered as part of the final EAC.



#### 4.2 Effect of The Designation

Section 44 of the Act defines categories of development. With relevance to the designation of land for infrastructure, section 44 of the Act states:

(b)development in relation to infrastructure under a designation is—

- (i) to the extent the development is building work under the Building Act—the category of development stated for the building work under a regulation; or otherwise—accepted development'.
- (ii) otherwise—accepted development'.

  Accordingly, if designated, development on the subject land under the designation is accepted development, and no further development approvals are required under the PA.

#### 4.3 Streamlined MID Process

On 24 February 2020, correspondence form the Development Assessment Division, Planning Group advised that the proposal for the school is endorsed for the streamlined MID process. Figure 4-1 illustrates the streamlined MID process.

Process for making a Ministerial Infrastructure Designation (MID), and making an amendment to a MID (not a minor amendment)

Preliminary, Prelodgement, Consultantation & Endorsement Stage

Guidance Material

Preliminary stakeholder engagement

Prelodgement with State and BCC............. Endorsement Stage

Guidance Material

MGR

Preliminary Detailing & Reporting

Planning Act 2016

Figure 4-1 MID Process Diagram (DSDMIP)





#### 5 TOWN PLANNING CONTEXT

This section of the EAC outlines the Local and State Planning Instruments that may be applicable to future development on the site. Relevance, or the extent of, will be dependent on the form of development that occurs. As many of the matters of state and local interest are repeated throughout the various planning instruments, a consolidated response to each matter is provided in below..

#### 5.1 State Context

Table 2 is a summary of the State planning context relevant to the site and/or use of the site for education purposes.

Table 2 - State Context Overview

STATE INSTRUMENT	COMMENT				
Planning Act 2016	As identified in section 4 above, the application is made in accordance with Section 36 of the Planning Act.				
Planning Regulation 2017	The education facility and place of worship seeks designation in accordance with Schedule 5 of the Planning Regulation.				
Ministers guidelines	This application has been prepared in accordance with the Ministers Guidelines which is a statutory instrument made pursuant to Section 17 of the Planning Act.				
State Planning Policy	In order to make a designation, pursuant to Section 36(7) of the Planning Act, regard must be made to any assessment benchmarks that relate to the subject site. With respect to this, the SPP is the relevant instrument that must be considered. Any relevant State interest matters relevant to the site, will be assessed against SPP assessment benchmark and outlined below.				
South-East Queensland Regional Plan	The site is within the Urban Footprint.				
State Assessment Referral Agency Mapping	SEQ Regional Plan land use categories  - Urban Footprint  Water resource planning area boundaries  - Water resource planning area boundaries  Regulated vegetation management map (Category A and B extract)  - Category B on the regulated vegetation management map  Core koala habitat area  - Core koala habitat area				

#### 5.1.1 State Context

The State Planning Policy ('SPP') identifies the State's interests in land use planning and development. The SPP sits above regional plans and local government planning schemes in the hierarchy of Queensland's planning instruments, as set out in section 8(4)(a) of the Act.

The SPP expresses the State's interests in land use planning, with an intent for local government planning schemes to reflect these interests. In cases where the interests of the State are not appropriately reflected in a planning scheme, the SPP provides assessment benchmarks. The following table identifies State interests and their applicability to the proposed Ministerial designation of the subject land:



SPP MATTER	APPLICABILITY			
Planning for Liveable Communities	and Housing			
Housing supply and diversity	N/A – The proposal does not involve housing			
Liveable Communities	N/A - The proposal does not involve a large scale residential development or mas planned community			
Planning for economic growth				
Agriculture	N/A - The land does not contain agricultural values			
Development and construction	N/A - This matter relates to broader land use strategy			
Mining and extractive resources	A - The proposal does not relate to mining			
Tourism	N/A - The proposal does not involve tourism activities			
Planning for the environment and h	veritage			
Biodiversity	- MSES - Wildlife habitat (endangered or vulnerable) - MSES - Wildlife habitat (special least concern animal) - MSES - Wildlife habitat (koala habitat areas - core) - MSES - Regulated vegetation (category B) - MSES - Regulated vegetation (essential habitat) A small section of the site is mapped as containing significant vegetation, this mapping is also reflected in the SARA DA mapping. This matter is addressed in a consolidated biodiversity heading below.			
Coastal environment	N/A - The subject land is not in proximity to a coastal environment.			
Cultural heritage	The subject land does not contain State heritage places. Local indigenous group have been notified and provided with an opportunity to identify any matters cultural heritage present on the land.			
Water quality	Water Quality  Existing stormwater management arrangements for the subject land will remain unchanged. A Stormwater Management Plan (both quality and quantity) can be conditioned as a condition should the state deem it warranted, as the proposal will not impact on receiving waters.			
Planning for safety and resilience t	o hazards			
Emissions and hazardous activities	N/A - The proposal does not involve activities that emit emissions or are hazardous.			
Natural hazards, risk and resilience	<ul> <li>Flood hazard area - Local Government flood mapping area*</li> <li>Bushfire prone area</li> <li>Please refer to the heading below which provides a detailed response.</li> </ul>			
Planning for infrastructure				
Energy and water supply	N/A – This interest relates to the deliverance of large scale energy and water sup infrastructure.			
Infrastructure integration	N/A – This interest relates to the broader delivery of infrastructure. The proposal wutilise existing infrastructure in an urbanised environment.			
Transport infrastructure	N/A – The college will continue to utilise the external access arrangement whi improving the internal access arrangement which will be reflected on the extern road network. Please refer to Appendix D -Traffic Engineering Assessment Reports which provides a detailed assessment.			
Strategic airports and aviation facilities	N/A - The site is not in proximity to strategic airports or aviation facilities which may affect their function.			
Strategic ports	N/A - The site is not in proximity to a strategic port.			



#### 5.1.2 State Development Assessment Provisions

A review of the State Government's Development Assessment (DA) Mapping System has been undertaken and the results reflect in Table 2 above.

The mapping search is undertaken to establish what aspects of the proposed development may trigger referral (under Schedule 10 of the Planning Regulation 2017 [PR]) to the State Assessment and Referral Agency ('SARA') (as a concurrence or advice agency) for their assessment against the relevant State Development Assessment Provisions ('SDAP').

Schedule 10 of the PR states referral agencies and their jurisdictions and includes triggers that relate to certain thresholds. A review of Schedule 10 of the PR has been undertaken, the following table identifies the triggers and their applicability to the proposal.

PART	MATTER	ASSI	ESSABLE DEVELOPI	MENT	REFERRAL	
		DESCRIPTION	CATEGORY OF ASSESSMENT	ASSESSMENT BENCHMARKS	REFERRAL AGENCY	MATTERS FOR ASSESSMENT BY REFERRAL
1	Airport Land	N/A	N/A	N/A	N/A	N/A
2	Brothels	N/A	N/A			N/A
3	Clearing Native Vegetation	Clearing category B vegetation that is of concern and of least concern regional ecosystem	Exempt, as development is for an urban purpose in an urban area	N/A	N/A	N/A
4	Contaminated Land	N/A	N/A	N/A	N/A	N/A
5	Environmentally Relevant Activity	N/A	N/A	N/A	N/A	N/A
6	Fisheries:  - Aquaculture  - Declared Fish Habitat  - Marine Plants  - Waterway Barrier works	N/A	N/A	N/A	N/A	N/A
7	Hazardous Chemical Facilities	N/A	N/A	N/A	N/A	N/A
8	Heritage Place: - Local Heritage Place - Queensland Heritage Place	Development on a local heritage place N/A	Code	N/A	N/A	N/A
9	Infrastructure Related:  - Designated Premises  - Electricity  - Oil and Gas  - State Transport Corridors and Future State Transport Corridors  - State- controlled transport tunnels and	N/A	N/A	N/A	N/A	N/A



	future state- controlled transport tunnels	IGNATION PROPOS				SEPTEMBER 20
10	Koala Habitat in SEQ	Exempted development if less than 500sqm cleared	Code assessment if greater than 500sqm	State code 25	SARA	State code 25
11	Noise Sensitive Place on Noise Attenuation land	N/A	N/A	N/A	N/A	N/A
12	Operational Work for Reconfiguring a Lot	N/A	N/A	N/A	N/A	N/A
13	Ports:  - Brisbane Core Port Land  - Within the port limits of the Port of Brisbane  - Within the limits of another port - Strategic Port Land	N/A	N/A	N/A	N/A	N/A
14	Reconfiguring a Lot under the Land Title Act	N/A	N/A	N/A	N/A	N/A
15	SEQ Development Area	N/A	N/A	N/A	N/A	N/A
16	SEQ Regional Landscape and Rural Production Area and Rural Living Area: - Community Activity - Indoor Recreation - Residential Development - Urban Activity	N/A	N/A	N/A	N/A	N/A
17	Tidal Works or Work in a Coastal Management District	N/A	N/A	N/A	N/A	N/A
18	Urban Design					
19	Water Related Development:  - Taking or interfering with water  - Removing quarry material - Referral dams - Levees	N/A	N/A	N/A	N/A	N/A
20	Wetland Protection Area	N/A	N/A	N/A	N/A	N/A
21	Wind Farms	N/A	N/A			N/A



#### 5.2 Local Context

Assessment Trigger	Table	Level of Assessment
Zone		
CF5 Community facilities (Education purpose)	5.5.19	Code
Neighbourhood Plan		
Ashgrove – Grange district neighbourhood plan	5.9.4.A	No change
Enoggera district neighbourhood plan	5.9.23.A	No change
All Aspects of Development		
Airport environs overlay	5.10.2	Accepted
Bicycle network overlay	5.10.3	Code
Biodiversity areas overlay	5.10.4	Code
Bushfire overlay	5.10.5	Code
Community purposes network overlay	5.10.7A	Code
Critical infrastructure and movement network overlay	5.10.8	Accepted
Flood overlay	5.10.11	Code
Heritage overlay	5.10.12	Code
Potential and actual acid sulfate soils overlay	5.10.15	Accepted
Road hierarchy overlay	5.10.18	Code
Streetscape hierarchy overlay	5.10.20	Code
Waterway Corridors overlay	5.10.25	Code

Table 5-1 Level of Assessment Table

#### 5.3 Summary of State and Local Matters

#### **Biodiversity**

Figures 5-1 and 5-2 below illustrate matters of local and state significance relating to biodiversity. As shown, there is a large cluster of vegetation in the south of the site which is mapped by Local and State governments. A Detailed Ecological Assessment Report is attached in Appendix F it considers the ecological value of all vegetation (mapped and non-mapped) which may be impacted by future development.

The report identified that the site contains a moderate level of ecological value throughout.

S5 Consulting state...

The intent of this report is to provide an informed assessment of the ecological values that are present and/or likely to be present on the site, particularly within the areas of proposed works so as to inform master planning, design, and the approval process. This report also provides an assessment of the site's habitat and biodiversity values and ecological functionality. The new proposed infrastructure is located in many different areas of the school grounds. In the preparation of this assessment the following steps were undertaken:

- Desktop Assessment;
- 2. Legislation and Planning Review;
- 3. Field Surveying;
- 4. Impact Assessment and Development Analysis; and
- 5. Conclusions and Recommendations.



#### Planning Regulation 2017

In February 2020, the State Government implemented new Koala Habitat Mapping consisting of Core Koala Habitat Areas (KHA), Locally Refined Koala Habitat Areas (LRKHA) and Koala Habitat Restoration Areas (KHRA). In addition, the State has recognised Koala Priority Areas (KPA) which are large connected areas throughout SEQ which are identified as the most strategic locations for Prioritising Koala Conservation. With the exception of a limited number of exemptions (outlined, in Schedule 24 - Dictionary, under Exempted Development), development within KPAs mapped as KHA or LRKHA is considered Prohibited Development.

The Assessment Benchmarks for other development inside KPA or Identified Broad-Hectare areas are outlined in Schedule 11 of the Planning Regulation 2017, with State Code 25 of the State Development and Assessment Provisions, providing the Performance Outcomes for any development within KHA or LRKHA, but outside of the KPA (as outlined in Schedule 10, Part 10 Section 16B).

A search by Lot and Plan through DES concluded that the subject site:

- is outside Koala Priority Area;
- is outside Identified Koala Broad-Hectare Area; and
- contains Koala Habitat Area (core) mapping throughout the northern extent of the site and along the western boundary.
- contains Koala Habitat Area (locally refined) to the south of the site.

All proposed works are to be undertaken outside the mapped Koala Habitat Areas, as seen in Figure 5.

#### City Plan 2014

While the proposed development will not be assessed by BCC under the City Plan 2014, it is understood the proponent is required by the State under a MID to address and have consideration for the intent of the relevant overlays.

Under City Plan 2014, the site is zoned as Community Facilities Education Purposes (CF5). The purpose of the CF Zone Code is to provide for community related activities and facilities whether under public or private ownership. These may include:

BCC Overlay mapping relating to ecological matters under the current plan include:

- Biodiversity Areas Overlay; and
- Waterway Corridor Overlay.

#### Natural Assets Local Law 2003

Natural Assets Local Law 2003 (NALL) defines four categories of protected vegetation. These categories identify the type of vegetation protected and the location of the vegetation:

- Council Vegetation;
- Waterway and Wetland Vegetation;
- Significant Native Vegetation; and
- Significant Urban Vegetation.

#### Significant Native Vegetation (SNV)

BCC defines the SNV category under the NALL as:

- Vegetation that has ecological value and provides important habitat or is a food source for wildlife;
- Species of native plants that are unique to the region and state, species such as Hoop Pines (Araucaria cunninghamii);
- Trees, shrubs, groundcovers and vines, located in particular areas, including dead vegetative material that provide important habitat for wildlife; and



• Native vegetation communities such as Melaleuca wetlands and rainforests that provide unique and valuable habitat for fauna species.

Accordingly, all native vegetation on the site is protected under the SNV category. This includes native trees, shrubs, vines, groundcovers and grasses, as well as dead vegetation material such as logs which may provide habitat to native wildlife. As native vegetation is proposed to be removed, an 'Application to Carry out Works (including interfering with) on Protected Vegetation' (NALL Permit) will be required prior to any clearing works.

#### Significant Urban Vegetation (SUV)

BCC defines the SUV category under the NALL as significant vegetation that is generally mature native or exotic vegetation including individual trees or groups of trees that:

- Are protected by an existing Council issued Vegetation Protection Order Individual Tree (VPO-IT) or Vegetation Protection Order Group of Trees (VPO-GT); or
- are listed or mapped in the SLT Overlay code of the Planning Scheme, the SLT Overlay map in the Planning Scheme; or
- are a specific species and size (listed in Schedule 2 of the Natural Assets Local Law 2003) and located in the Emerging Community (EC) Zone of the Planning Scheme.

Accordingly, all SUV category vegetation on site is protected. As SUV mapped vegetation is proposed to be removed throughout the site, an 'Application to Carry out Works (including interfering with) on Protected Vegetation' (NALL Permit) will be required prior to any clearing works.

#### Waterways and Wetland Vegetation (WWV)

BCC defines the WWV category under the NALL as all vegetation in mapped wetlands and waterways, other than pest vegetation as defined by the NALL. Waterways and Wetlands associated with WWV do not have to contain water and can be natural or man-made. The site is mapped as containing patches of WWV, therefore if vegetation is to be pruned or removed within the mapped WWV, you may need to apply for an 'Application to Carry out Works (including interfering with) on Protected Vegetation' (NALL Permit).

#### Natural Assets Local Law

The requirements of the Natural Assets Local Law are applicable to the proposed development. These requirements can be fulfilled through submitting an Application to Carry Out Works on Protected Vegetation (NALL Permit) prior to undertaking clearing on the site.

#### Conclusions

The detailed Ecological Assessment prepared by \$5 Consulting concluded the following:

The report investigated the ecological values, features and functionality of the site and applicable ecological and legislative constraints.

The proposed works are largely located in **highly modified environments** that were predominantly devoid of naturally occurring vegetation and comprised of manicured lawns, historically cleared areas, existing buildings and sparsely planted trees and shrubs. The greatest areas of ecological value were observed in Areas A, F, H and I, where large koala habitat trees are present in the vicinity of the proposed buildings. 16 trees are proposed to be removed. It is recommended the building layout is tailored to retain these large canopy species.

The proposed works **will not** have a significant impact on MNES and are unconstrained at the Federal Level. No proposed works encroach into areas of MSES Biodiversity. However, it is understood a MID application is required to also assess impacts to MSES outside mapped areas under the SPP. The



proposed development will involve the removal of 16 Non-juvenile Koala Habitat Trees. A corridor of vegetation currently exists along the northern boundary of the site, which connects to the broader vegetation that exists west of the school. It is recommended that **compensatory planting** for the removal of Koala Habitat Trees be undertaken along this northern boundary.

At the local level, the site is mapped under the Brisbane City Council's City Plan 2014 as containing areas of Biodiversity Overlays mapping and Waterway Corridors mapping. It is \$5 Environmental's understanding that the proposal does not require assessment against the City Plan 2014 but should give consideration to the intent of planning overlays. Regardless, it is \$5 Environmental's understanding that no works are proposed within the HES, HESS mapped areas in the Biodiversity Areas Overlay, nor within a Waterway Corridor in the Waterway Corridors Overlay.

With the incorporation and implementation of recommendations identified in Section 6 and Section 7, S5 Environmental believe the ecological impacts by the proposed Masterplan will be minor and can be adequately mitigated.



Figure 5-1 Biodiversity Overlay Extract
Source: BCC Interactive Mapping





Figure 5-2 Biodiversity Overlay Extract
Source: Phorm Plans





Figure 5-3 Photo of Area where the proposed Primary School is being located Urbicus Site Photos

URB20-039 Marist College Ashgrove



SEPTEMBER 202



Figure 5-4 Photo of Area where the proposed Primary School is being located Source: Urbicus Site Photos





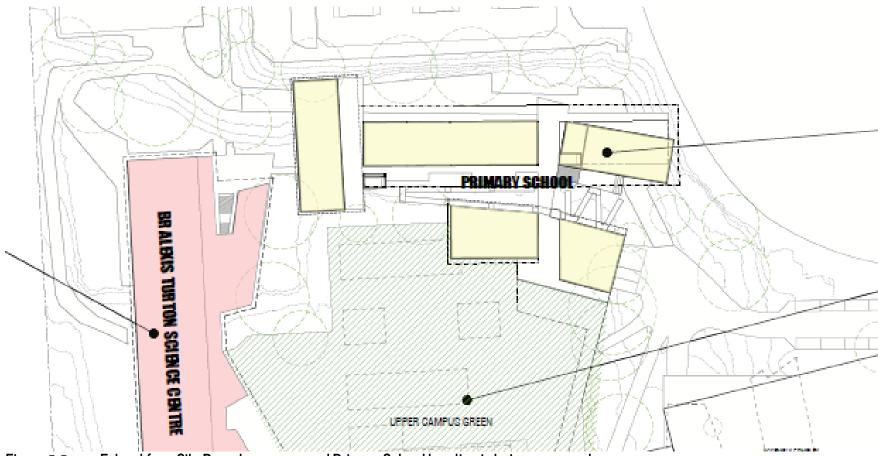


Figure 5-5 Extract from Site Pan where proposed Primary School location is being proposed Phorm Plans





Figure 5-6 Extract from Aerial where proposed Primary School location is being proposed Source: Qld Globe





Figure 5-7 Photo of Area where the proposed Assembly precinct is being located

\*\*Course:\*\* Urbicus Site Photos\*\*

URB20-039 Marist College Ashgrove

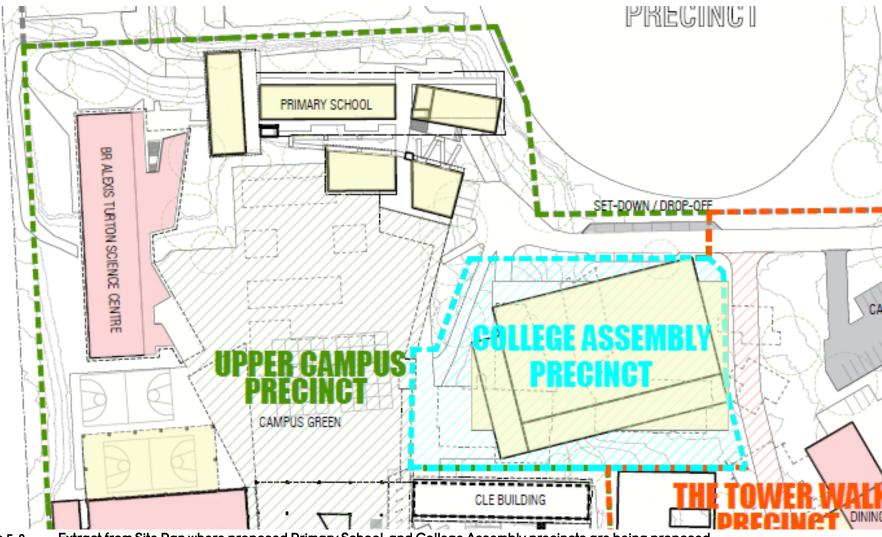


Figure 5-8
Source: Extract from Site Pan where proposed Primary School and College Assembly precincts are being proposed
Phorm Plans



#### **Bushfire**

As shown in the figure below, the site is partially affected by various levels of bushfire hazard and impact buffers. A Bushfire Hazard Assessment attached in Appendix E provides an assessment of the hazard presented by the vegetation present on the site. The assessment finds that the entire site has a low/medium potential bushfire intensity in the post development scenario.

S5 Consulting state...

Whilst it is acknowledged that the Local Authority Planning Scheme does not apply to the MID process, it is important to recognise and acknowledge Local Government Planning overlays and intent. As such, it is acknowledged that the Brisbane City Council City Plan 2014 implements the Bushfire Hazard Overlay Code which acts as a development constraint within the BCC locality. However, the Bushfire Hazard Overlay maps for BBC differ slightly from the SPP overlays, refer to Figure 4. Both overlays show bushfire mapping within 100 m of the proposed buildings, and consequently a further investigation of the site-specific bushfire hazard characteristics has been undertaken to determine the actual hazard of the site, in accordance with the SPP.

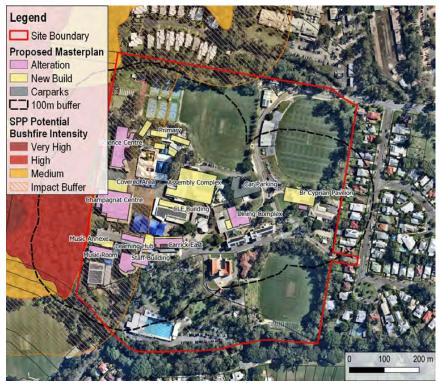


Figure 3. Extract of the SPP Bushfire Prone Areas Mapping

The proposed development includes the renovation of several school buildings, extensions to existing buildings including dining complex, Champagnat Centre, General Learning Areas (GLA), BR Cyprian Pavilion, and additional carparking. Additional learning spaces will include an extension to the Carrick Wing, Music Room annex, Science Building, and CLE Building, with Covered Area extending from the Champagnat Centre. New buildings include the Primary School, Assembly Complex, Learning Hub between the Carrick Wings, and a new Music Annex building. Accordingly, it is considered that this development includes the construction of one class of building type only teaching spaces/library, refer to Table 3.

Given that these are non-habitable structures and are not a Class 1-3 or 10A Buildings or structures, there is no requirement to comply with the construction requirements described in AS3959-2018, under the Building Code of Australia. Accordingly, a Bushfire Attack Level Assessment is not required for the proposed Master Plan works.

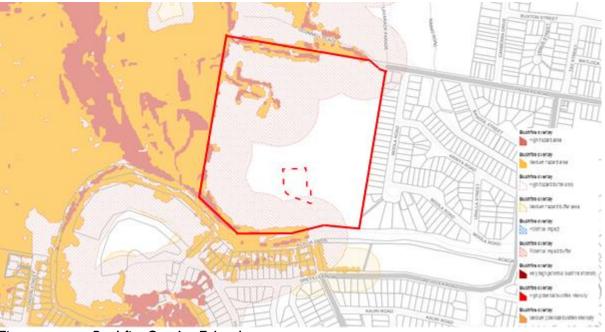


Figure 5-9 Bushfire Overlay Extract
Source: BCC Interactive Mapping

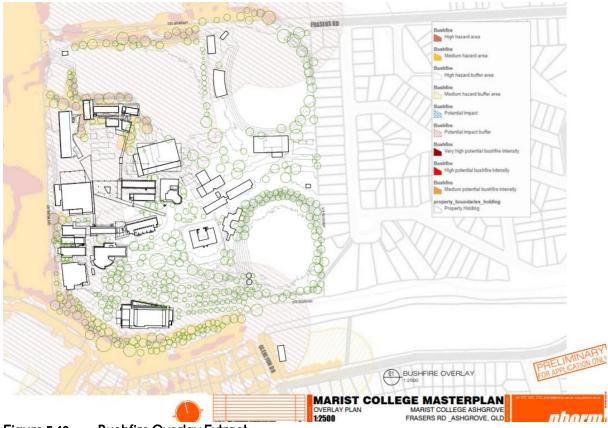


Figure 5-10 Bushfire Overlay Extract
Source: Phorm Plans



## **Observations**

The Bushfire Hazard Assessment concluded that the proposed new buildings under the Master Plan for the Marist College, Ashgrove are located within 100 m of Hazardous Vegetation and that bushfire risk is present to varying degrees across the school grounds. While the majority of the school is located within Low Hazard area, there is Very High, High and Medium Hazard PFLI within 100m of the proposed master planned works.

Hazardous vegetation is located within the Gallipoli Army Barracks. As a result of this setback, the majority of the proposed buildings have been determined to be potentially exposed to a radiant heat flux of 10kW/m2 or lower. The Covered Area will be exposed to a radiant heat flux of 29kW/m2, lower than the adjoining building to the south, and the Music Annex, 40kW/m2. This exposure is considered acceptable as the works are proposed within the existing footprint of the school, and not expected to increase the school's bushfire risk. However, it is highly recommended that arrangements are be made with the property managers of the Gallipoli Army Barracks to plan an Asset Protection Zone. This should consist of a cleared 20m setback from the shared boundary with Marist College, and be continually maintained.

Due to the hazard rating determined by the hazard assessment, a site-specific Bushfire Management Plan was developed. The Bushfire Management Plan recommends key mitigation measures which should be implemented to ensure the risk to people and property is acceptable and minimised. These measures are summarised as:

- Asset Protection Zone placed over the recommended 20m wide Army Barracks setback, to be regularly slashed;
- Asset Protection Zone implemented along the western boundary between existing and proposed buildings;
- Undertake vegetation management in the school Asset Protection Zone to maintain in a very low fuel state;
- Build fire-resistant buildings in accordance with the BCA and AS3959-2018 (where applicable), in particular constructing the Accommodation Buildings in accordance to BAL 12.5 construction standards;
- Including early warning systems and fire-fighting infrastructure such as: smoke alarms, fire extinguishers, and fire hydrants, in the design of buildings and layout of the subdivision;
- Ensure up-to-date evacuation and emergency procedure plans are prepared; and
- Implement low-flammability landscaping within 100 m of bushland areas.

A Bushfire Risk Assessment, conducted in accordance with AS/NZS ISO 3100-2018 determined that with the implementation of the above recommended mitigation measures, the risk of a bushfire igniting, spreading and causing damage to the proposed development along the western boundary and people within is considered High.

## **Enoggera Army Barracks Communications**

Marist College and the Enoggera Army Barracks as neighbours have had a long and ongoing relationship. Recently the barracks were contacted about the opportunities to establish a bushfire buffer along the western boundary to minimise bushfire risk. These negotiations are on going and this point the barracks have expressed a "thinning out" program as part for barracks maintenance program will be undertaken in the future. It is considered that an opportunity in the future to define a more structured fire break is likely to occur, however this could take sometime to facilitate.

In consideration of the above advice was received from S5 Environmental which demonstrated that the introduction of a formalised fire break would be **exempt** under the state and local government legislation. This is outlined below.



## Bushfire Clearing exemption advice.

Summary of Clearing exemptions for Bushfire Buffer Setback as supplied by \$5 Environmental.

## State Legislation

- Category B Least Concern Vegetation and Koala Habitat Area (core) can be cleared by Defence under the *Planning Regulation 2017* (refer table 1) to establish a track, road, fence, fire break or fire management line.
- Exemptions to clearing for these purposes are primarily through the definition of 'exempted development' and
  'essential management'. The Schedules and Parts of the Planning Regulation where these exemptions are sourced
  are outlined below.
- A summary of clearing widths for a lot greater than 5ha as follows under State Legislation (Planning Regulation 2017)
  - Necessary Fence, road or vehicle track 10m (Exempted development)
  - o Fire management line (Exempted development (Essential management))) 10m
  - Fire Break to protect infrastructure (Exempted development (Essential management))) Min. 20m <u>from existing infrastructure</u>. Based on average heights of canopy in the mapped Regional Ecosystem (RE12.11.3) it could be a could be a clearing of up to 37.8m (25.2m x 1.5) <u>from existing infrastructure</u> for example (would need ground-truthing). (NB: does not specify the existing infrastructure should be on the lots where the clearing is being undertaken)

NB: The clearing for firebreaks can only be applied as a buffer to existing infrastructure. Outside of these buffers, the clearing would need to be reduced to 10m wide. Clarification could be sought from the State on whether these clearing widths can added together. For example 10m width for a track <u>plus</u> 10m for fire management line.

Protected Plants under the Nature Conservation (Plants) Regulation 2020
 It appears the only exemption to undertaking a Protected Plants Survey is for the following:
 Firebreaks or fire management lines Section 50

1. An exemption applies to a person who takes a protected plant in an area if the person takes the plant by clearing for—

|a| establishing or maintaining a necessary firebreak to protect infrastructure, other than a fence, road or vehicular track, if the maximum width of the firebreak is equal to the wider of the following—

 ${\it i.1.5 times the height of the tallest vegetation next to the infrastructure;}$ 

ii. 20m; or

(b) establishing a necessary fire management line, if the maximum width of the clearing for the fire management line is 10m.

2. In this section—

infrastructure includes a building, or other structure, built or used for any purpose.

And for maintaining existing infrastructure (doesn't say that it can't be a fence) but does not give a width

#### **Brisbane City Council**

- As the clearing would be Operational Work not involving filling etc, Material Change of Use or, RoL, we understand
  it would be Accepted Development under the Brisbane City Council (BCC) Planning Scheme (ie no Development
  Application Required)
- Vegetation protected under BCC Natural Assets Local Law will require a permit. No exemptions to 'Clear a
  firebreak' unless the clearing is in accordance with a written (or oral, in emergency circumstances) direction to clear
  a firebreak given by a Fire Warden, the Queensland Fire and Emergency Services.

Table 1 - Planning Regulation 2017

Tuble 1 - Fluithing Regulation 2017	
Schedule 10, Part 10, Division 3, Subd	livision 1 Assessable development
16B Assessable development— development interfering with koala habitat in koala habitat areas outside koala priority areas	(1) Development is assessable development to the extent the development involves interfering with koala habitat in an area that— (a) is a koala habitat area; but (b) is not a koala priority area. (2) However, subsection (1) does not apply to the extent the development— (a) is exempted development;
Schedule 21 - Exempt Clearing	
Part 2 Clearing for particular land for freehold land, clearing vegetation	(c) that is necessary for <b>essential management</b>
Schedule 24 - Dictionary	



Exempted Development means	(n) development that is or involves operational work that is the clearing of native vegetation in a koala habitat area if the clearing—	(vii) is necessary for <b>essential management</b> and is qualifying clearing; or
	o) development on a lot that is or involves operational work that is the clearing of native vegetation in a koala habitat area if—	(i)the clearing is necessary to establish a necessary fence, road or vehicular track on an existing lot; and
		ii the clearing is qualifying clearing; and
		iii the vegetation is regulated regrowth vegetation or a least concern regional ecosystem in a category B area; and
		iv the maximum width of the clearing for the fence, road or track is—  A for a lot that is 5ha or less—5m; or  B for a lot that is more than 5ha— 10m; or
Essential Management means clearing native vegetation—	(a) for establishing or maintaining a necessary firebreak to protect infrastructure, other than a fence, road or vehicular track, if the maximum width of the firebreak is equal to 1.5 times the height of the tallest vegetation next to the infrastructure, or 20m, whichever is the wider; or	
	(b) for establishing a necessary fire management line, if the maximum width of the clearing for the fire management line is 10m; or	

Table 5-2 Extract from Planning Regulation 2017

Source: Planning Regulations

# Conclusion

The bushfire / vegetation representations above support the location of the proposed Primary Building, Assembly Building Precincts / footprints and any other improvements. In concert with negotiations with Enoggera Army Barracks in the future, any formalised fire break will reduce risk associated with any bushfire threats. Regardless the College maintains separation from the common boundary to west to minimise bushfire threats. See Figures 5-9 – 5-13 and this the new Primary School will address this matter during construction. It is noted that the College has never been threatened by a bushfire and despite the potential risk it is manageable as per the recommendations of the bushfire report.





Figure 5-11 Interface with Western Boundary of the College (Army Barracks)

Source: Urbicus site photos



Figure 5-12 Interface with Western Boundary of the College (Army Barracks)

Source: Urbicus site photos



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Figure 5-13 Interface with Western Boundary of the College (Army Barracks)

Source: Urbicus site photos





Figure 5-14 Interface with Western Boundary of the College (Army Barracks)

Source: Urbicus site photos



Figure 5-15 Interface with Western Boundary of the College (Army Barracks)

Source: Urbicus site photos

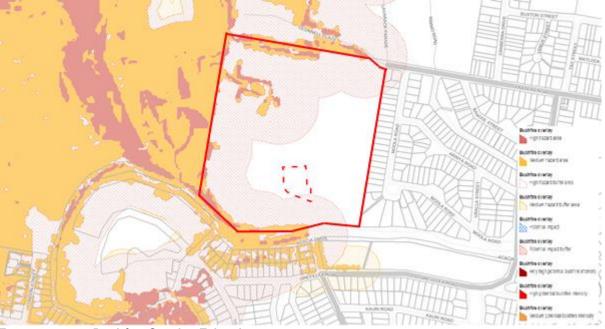


Figure 5-16 Bushfire Overlay Extract
Source: BCC Interactive Mapping

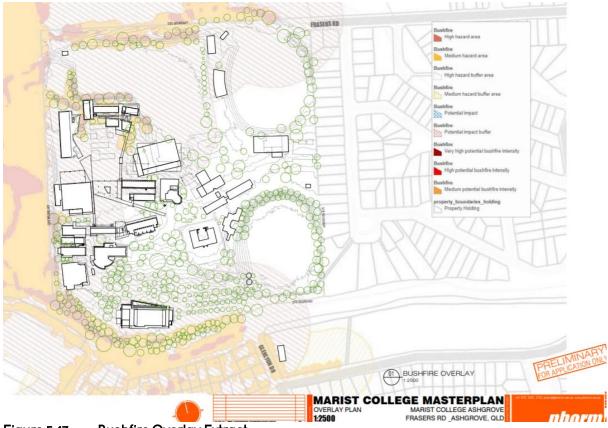


Figure 5-17 Bushfire Overlay Extract
Source: Phorm Plans



## Flood & Stormwater

Bligh Tanner, Engineers make the following observations in relation to Flooding and Stormwater considerations. Refer to Appendix I – Services and Engineering Letter.

The southern boundary of the site is affected by creek flooding associated with Enoggera Creek (refer Figure 1). All new building works will need to comply with relevant flood planning levels. While the proposed masterplan does not show any works within the flood extent, should any works occur within the mapped flood extents, a flood impact assessment may need to be undertaken.

The Glenlyon Drive access appears to be impeded by floodwaters under major events, however alternative access is available via Moola RD and O'Connell Drive.

The site is unlikely to need flood detention given there is only a modest change in impervious surfaces. The key stormwater management issue is therefore stormwater quality, as the new works will need to comply with best practice stormwater management targets as specified in the State Planning Policy.

An ideal stormwater management strategy would be one which:

- Can be implemented in a staged manner as the masterplan is progressively implemented, rather than relying on a single end-of-pipe treatment system that would need to be delivered with the first stage of development.
- Is incorporated into site landscaping and uses raingardens and other green infrastructure, so that the strategy adds to the amenity of the school while having low ongoing maintenance costs.
- Provides opportunities for additional learning benefits, such as helping teach students about the natural watercycle.

#### Conclusion

Put simply, the proposed works for the college are not in conflict with any flooding matters on-site and stormwater management can be addressed at Building Approval phase.



Flood Overlay Extract - Creek/waterway flood planning area Figure 5-18 Source: **BCC** Interactive Mapping





Figure 5-19 Flood Overlay Extract – Overland flow flood planning area

\*\*Source:\*\* BCC Interactive Mapping\*\*



Figure 5-20 Flooding Overlay Extract
Source: Phorm Plans



## Heritage

The Tower Block has a local Heritage Overlay. Refer to Appendix J Tower Block and Memorial Gates Heritage Citation. The Tower Block building is the spiritual building of the College and is centrally located on the campus. The proposed building works as part of the Master Plan do not impact on any view lines or the built form of the works. The Master plan does take into consideration the importance of the building contextually and introduces the "tower walk" as part of the latter building works program. The tower walk precinct. Refer to Figures 5-22 and 5-23 and proposal plans.



Figure 5-21 Marist Tower Block
Source: Marist College



Figure 5-22 Marist Tower Block
Source: Marist College





Figure 5-23 Marist Tower Block
Source: Marist College

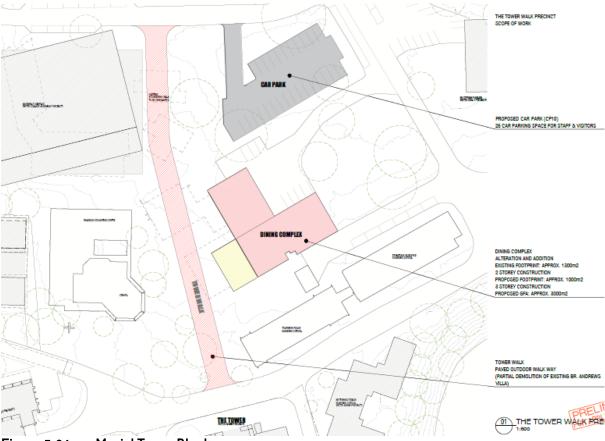


Figure 5-24 Marist Tower Block
Source: Phorm Plans



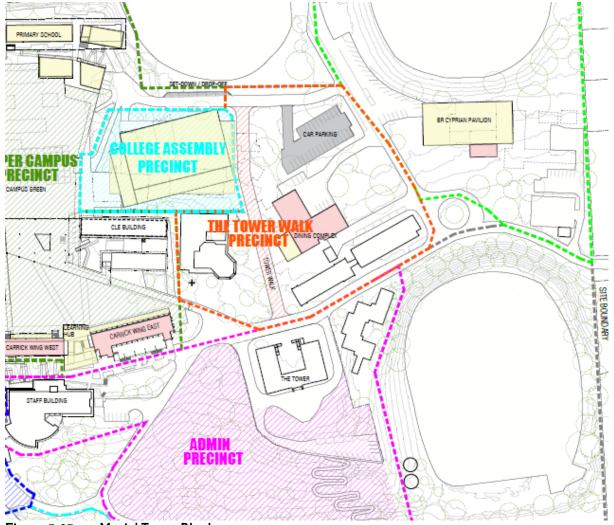


Figure 5-25 Marist Tower Block
Source: Phorm Plans



Figure 5-26 Heritage Overlay Extract
Source: BCC Interactive Mapping



#### 6 INFRASTRUCTURE PROPOSAL MATTERS

Table 6 includes responses to the matters that must be considered in accordance with section 2.2 of Chapter 8 of the MGR for an Infrastructure Proposal.

a) The site description including the location of the premises proposed to be designated							
Real Property Description	Lot 364 on SP272699						
Property Address	ess 182 Frasers Road, Ashgrove and 82 Moola Road, Ashgrove						
Registered Owner	Trustees Of The Marist Brothers C/- Marist College Ashgrove						
Tenure	Freehold						
Site Area	396,004m <sup>2</sup>						
Land subject to ID proposal	Refer to Appendix A – Aerial of the Subject sites.						

#### b) Any existing uses on the premises proposed to be designated

The subject site currently used as an educational establishment. The subject land has access to services including reticulated water, stormwater and sewer. Refer to Appendix I – Services and Engineering Letter.

#### c) Existing uses on adjoining sites

The Infrastructure Designation site is located in the Community facilities (Education) zone and adjoins land zoned for residential uses and Commonwealth Uses (Enoggera Army Barracks). The locality is an established suburb comprised of standard lot detached housing.

## d) The type of infrastructure and the anticipated size and scale of the infrastructure

Refer to Sections 2 & 7 of report - Refer to Appendix I – Services and Engineering Letter

#### e) Information about the nature, scale and intensity of each use proposed for the infrastructure

Refer to Sections 2 & 7 of report - Refer to Appendix I - Services and Engineering Letter

#### f) the intended outcomes of the proposed uses on the site

Refer to Sections 2 & 7 of report - Refer to Appendix I – Services and Engineering Letter

## g) any anticipated impacts on the surrounding infrastructure network

Refer to Sections 2 & 7 of report - Refer to Appendix I – Services and Engineering Letter

## h) Statement about relevant planning instruments and how they are relevant to the infrastructure proposal

This report outlines the relevant planning instruments applicable to the assessment of the MID. Under each instrument the applicable local and state planning interests and associated mapping are summarised.

The relevant planning instruments include the State Planning Policy (SPP) 2017, Regional Plan and Local Government Planning Scheme. The Planning Regulation 2017 and associated SARA DA Mapping and State agency referral requirements are not relevant to the designation process rules under Schedule 10, however these matters have been considered as part of the designation and are addressed in this report.

## i) Sufficient information of consultation required with the state and community about the infrastructure proposal

Refer to Sections 2 & 7 of report - Refer to Appendix I – Services and Engineering Letter

# j) Any other matter the infrastructure entity considers relevant to the request

Refer to Sections 2 & 7 of report - Refer to Appendix I – Services and Engineering Letter

## Table 6-1 Assessment of Matters A) to J)



## ENVIRONMENTAL ASSESSMENT

This section of the EAC provides an assessment of the identified anticipated impacts on the surrounding infrastructure network and environmental, social and economic impacts (positive and negative) and how potential negative impacts will be mitigated.

# 7.1 Anticipated Impacts on Surrounding Infrastructure Network



Figure 7-1 Key Utilities

Source: BCC eBiMap/Bligh Tanner Services & Engineering Letter

## Water

The proposal will continue to utilise existing water connections.

## Sewer

The proposed Ministerial designation will continue to utilise the existing connections. As such, no further actions are required.



#### Stormwater

For the purpose of stormwater assessment, the site has been divided into a western catchment (oval) and eastern catchment (main campus). Both catchments ultimately drain to the waterway to the north or to Enoggera Creek. As such, no stormwater quantity control is necessary.

It is noted that future building will invest in water harvesting and tanks to minimise mains water consumption.

#### Conclusion

The site appears to be well serviced with key utilities including water supply, sewer and stormwater Network capacity assessments will need to be undertaken in due course, however it is unlikely that the modest increase in demands on those networks would trigger the need for any external upgrades.

Put simply, the proposed works for the college are not in conflict with any stormwater matters on-site and stormwater management can be addressed at Building Approval phase.

Refer to Appendix I – Services and Engineering Letter

## Electricity

The proposed Ministerial designation will continue to utilise the existing connections.

It is noted that the college has invested heavily in solar panels to minimise fossil fuels and reduce energy costs. 5 buildings currently have solar panels and this reduces energy bills by approx. 50%.

No further actions are required.

#### **Telecommunications**

The proposed Ministerial designation will continue to utilise the existing connections. No further actions are required.

## Site Access and Traffic

Below is a breakdown of the traffic and access considerations associated with the College. Refer to Appendix D – Traffic Engineering Assessment Report prepare by BMC.

#### Background and Site Context

Approval is sought for expansion of the existing Marist College located at 142 Frasers Road, Ashgrove. The campus location is shown on Figure 1.1.

The current site operations, Year 2021, include the following components:

Primary School (Yr 5 & 6): Approval for 280 students (270 enrolled).
 Secondary School: Approval for 1,420 students (1,382 enrolled).

• School staff: 239 staff.

The school currently primarily gains vehicle access to Moola Road, O'Connell Place and Glenlyon Drive, with access including:

Moola Road: Left-in only (Figure 1.2).
 O'Connell Place: Full movements (Figure 1.3).

• Glenlyon Road: Entry/Exit over single lane bridge, gated access past pool (Figure 1.4).

The formal pick-up/set-down operations for the school are undertaken on the southern side of the internal road, between Moola Road and the first internal roundabout (Figure 1.2).

There is an external vehicle pick-up/set-down zone in Grevillia Road, adjacent to the park.

Key roads adjoining and providing access to the site are described below.



**Moola Road** is classified in Council's road hierarchy as a Neighbourhood Road (Minor Road). It is configured with a two-way, two-lane undivided carriageway, with pedestrian paths on both sides.

Queuing currently occurs on Moola Road, with this queue extending from within the school grounds. This creates issues for through traffic, as there are no turn lanes on Moola Road.

Parking is permitted on both sides of the roadway, with no time restriction. There is a central median in Moola Road at the school access, which physically restricts movements to left-in. There is also a 'No U-Turn' sign on this median.

**O'Connell Place** is unclassified in Council's road hierarchy, providing connection to a private estate and the school only. There is a pedestrian path on the southern side of the roadway, connecting to the school.

**Glenlyon Drive**, north of Grevillia Road, is a Neighbourhood Road (Minor Road), with pedestrian paths on both sides of the roadway. This changes to a Suburban Road (Major Road) south of Grevillia Road.

Grevillia Drive, east of Glenlyon Road, is a Suburban Road (Major Road).

**Acacia Drive** connects to Glenlyon Drive at the school's bridge entry. There are no formal pedestrian facilities in Acacia Drive, with the road space being a Bicycle Awareness Zone as part of the Principal Bicycle Network.

#### Summary

To summarise the above in relation to car parking, 11 car parking spaces for staff and their visitors are required under the TAPS Policy under the Master Plan.

As the new Primary School collection area is proposed for the whole of the Primary School operations, this is recommended to be designed to accommodate six |6| vehicles loading.

The following design principles have been included in the design of the Master Plan:

- 1. Provision of a new Primary School pick-up/set-down area.
- 2. Reducing demand for the existing pick-up/set-down area, allocating to the Secondary School only.
- 3. Provision of new car parking (CP10 and CP11), near the Primary School.
- 4. Additional bicycle parking BP01 and BP02.

The removal of 270 students from the existing Moola Road pick-up/set-down facility will reduce the queuing currently experienced at this location.

Due to the nature of current planning, this review has been provided at a conceptual level only. Detailed review of design elements will be undertaken prior to construction of each element.

To manage traffic flows around the school and minimise queuing, it is proposed that:

- The Primary School pick-up/set-down will be accessed from the north (O'Connell Place).
- The Secondary School pick-up/set-down will be accessed from Moola Road.

The access to the pick-up/set-down facilities will be somewhat intuitive, given the queuing currently experienced at Moola Road. Education of parents/carers regarding the access arrangement can, however, also be advised through school communication channels.



## Mitigating Traffic Works

The Master Plan incorporates the mitigating works to offset the impacts of the additional capacity of enrolments:

- Relocate Primary School pick-up/set-down: Reduce queuing on Moola Road.
- Provide additional bicycle parking: Encourage active travel.

The proposal will introduce a demand for right turn movements from the internal road to the new pick-up/set-down area. If congestion occurs around this right turn, it would be possible to create a right turn lane by removing bollards to the east of the roadway. This is not included in the initial works package and should continue to be monitored.

Refer to Figures 7-2 - 7-4 below.

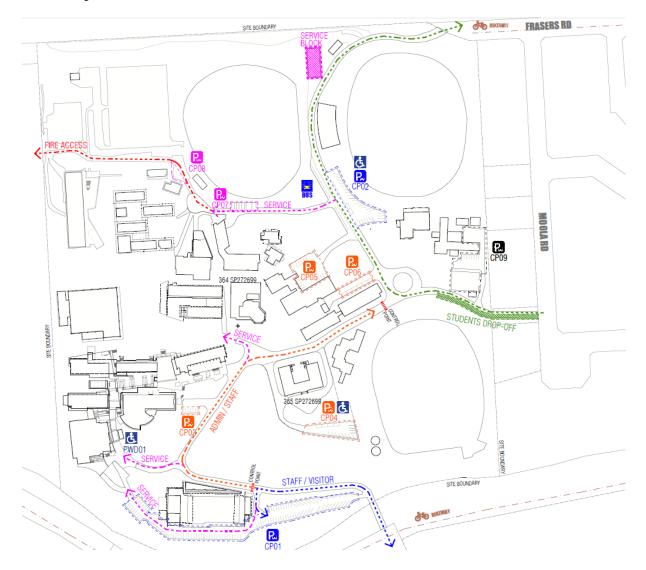


Figure 7-2 Existing Vehicular Routes and Car parking within the College.

Source: Phorm Plans



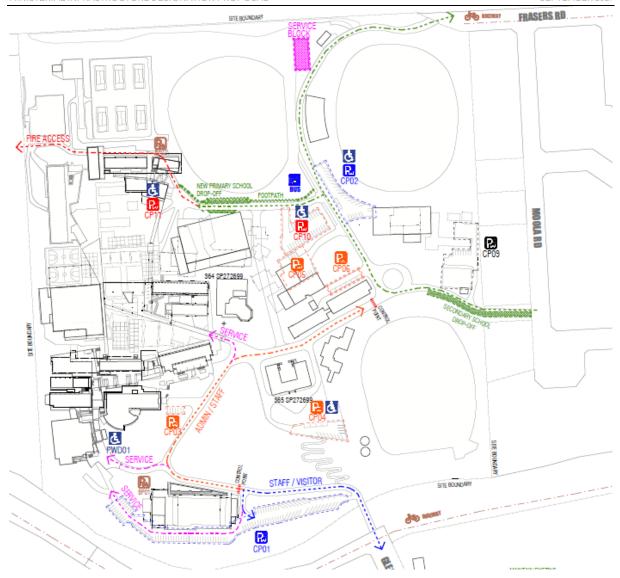


Figure 7-3 Proposed Vehicular Routes and Car parking within the College.

Source: Phorm Plans

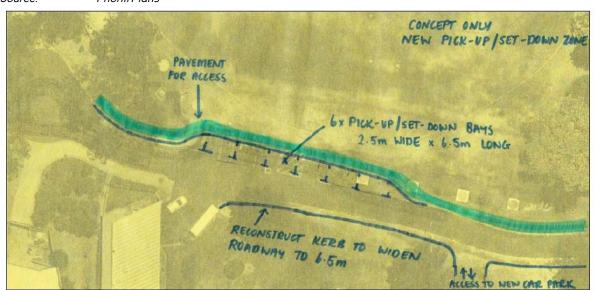


Figure 7-4 Proposed Pick-Up/Set-Down Design for Primary School

Source: BMC report extract



The BMC Traffic Engineering Assessment made the following observations and recommendations...

In relation to **car parking**, the following are provided as part of the Master Plan:

- 6 new pick-up/set-down car parking spaces at the Primary School. (Refer to Figure 7-4.)
- 11 new staff car parking spaces (CP10).
- 15 car parking spaces over and above the requirement of Council's TAPS Policy (CP10 and CP11).
- 3 new PWD parking spaces (CP10 and CP11).

As part of the detailed design of all new car parking, this will be constructed to meet the requirements of the Australian Standard for Off Street Car Parking (AS/NZS2890.1-2004).

To continue to support cycling and active transport, an **additional 35 bicycle parking spaces** are proposed.

The overall development is expected to **generate the following additional traffic**, at completion and full take-up of the Master Planned development.

#### In short...

- There will be a redistribution of traffic associated with the relocation of all Primary School pick-up/drop-off.
- The Master Plan includes the following key infrastructure works to off-set the impacts of the development:
- Providing a new pick-up / set-down facility for the Primary School.
- Reducing the demand, and associated off-site queuing, in Moola Road, by relocating Primary School pick-up/set-down.
- Additional parking for 35 bicycles.
- Adding to the internal path network.

#### Conclusion

The Traffic Engineering Assessment Report prepare by BMC demonstrates the current and proposed traffic, access and car parking considerations for the College. The recommendations associated with proposed Master plan improvements address the considerations raised by Council and the local residents at a stakeholder and engagement phase.





#### Assessment of All Environmental, Social and Economic Impacts 7.2

Table 7 – Assessment of Environmental, Social and Economic Impacts

Table 7 – Assessment of Environmental, Social and Economic I	
EXISTING AND PROPOSED CONTEXT	ACTIONS
Erosion and Sediment Risk	
Construction will be carried out in accordance with an Erosion and Sediment Control Plan for all stages and appropriate measures will be implemented to minimise the nature of any adverse impacts. Post construction the designation will not result in the land without some form of treatment and or landscape coverage	Prior to work commencing on the subject land an Erosion Management Plan will be prepared by a suitably qualified consultant in accordance with relevant requirements and will be implemented and kept onsite throughout construction of each stage.
Contaminated Land	
The subject land is not known to be listed on the Contaminated Land Register or the Environmental Management Register. The subject land is currently and has historically been used for sensitive uses.  The proposed Ministerial designation does not involve notifiable activities.	N/A - No further actions are required.
Natural Resources	<u> </u>
	N/A N C II
The subject land is not included on the State government's State Planning Policy Interactive Mapping System ('SPP Interactive Mapping System') as:	N/A - No further actions are required.
<ul> <li>Agriculture (Important agricultural areas, Agricultural land classification</li> <li>Mining and Extractive Resources (Key Resource area – resource /processing area, separation area, transport route, transport route separation area).</li> </ul>	
Accordingly, the proposed Ministerial Designation will not result in adverse impacts on natural resources associated	
Natural Hazards	
Bushfire	Please refer to section 5 of this report.
Please refer to section 5 of this report.	·
Coastal Hazard	
Please refer to section 5 of this report.	
Flood	
Please refer to section 5 of this report.	
Protected and Vulnerable Areas	
Waterways. Please refer to section 5 of this report which demonstrates the proposed development avoids Enoggera Creek and the waterway corridor the north.	No further actions are required.
Cultural Heritage and Native Title	
The subject land is freehold and within an urban area. As such the land is not subject to native title requirements. Notwithstanding, the relevant native title claim group for the locality has been made aware of the development. At this stage, no feedback has been received. The group will continue to be consulted throughout the application.	No further actions are required.
The site contains a building on the local heritage register, please refer to section 5 of this report which addresses this.	
Health, Safety, Amenity and Social Impacts	
Socio economic outcomes	No further actions are required.
The College has been operating in the area for 80 years. The College community promotes and underpins socio-economic benefits and will continue to do so under the proposed Ministerial designation and master planning.	
The College will provide:	
<ul> <li>ongoing long term educational and associated employment opportunities (employment opportunities during both construction and operation);</li> </ul>	
<ul> <li>modern, up to date facilities to enable Australian Curriculum to be delivered whilst also meeting school strategic direction and needs; and</li> </ul>	



significant investment and associated benefits to the economy.	
Construction Management Construction activities will be undertaken in accordance with a Construction Management Plan that will address (where applicable):  Public safety, amenity and site security. Construction hours and Management in accordance with the Environmental Protection Act 1994 ('EP Act')  Dust management / control will be implemented in accordance with relevant Australian Standards and Workplace Health and Safety Act 2011 and regulations; Stormwater and sediment control (ESC). Works will be carried out in accordance with a site-specific erosion and sediment control plan; Lighting. External lighting will be provided in accordance with the relevant Australian Standards; Waste management. Waste generated from development works will be handled and disposed of in accordance with the requirements of the EP Act; and Traffic management (including details of construction access and parking).	Prior to work commencing on the subject land a Construction Management Plan will be prepared by a suitably qualified consultant in accordance with relevant requirements and will be implemented and kept onsite throughout construction
Operational Impacts  The development will generally improve operation of the site whilst minimising impact on the natural and built environment. Potential impacts relating to traffic, biodiversity and stormwater have been addressed in previous sections of this report and the subsequent specialist reports.	Please refer to the various specialist reports which provide recommendations to minimise impacts of the operation of the development.
Emissions	
The proposed Ministerial designation, consistent with the existing operation on the subject land, is not expected to generate emissions, gasses, or negative air quality impacts.	No further actions are required.
Safety and Security	
Existing safety and security measures are employed at the subject land. Being a Boarding College, the grounds are constantly occupied by staff, students, teachers and parents.	No further actions are required.
Residential Amenity	
As outlined in the plans, the bulk of the alternations and new builds are strategically located in the western portion of the. The campus green precinct and surrounds. The new primary building flanks the existing campus in the northwest portion of the site, interfacing with the Enoggera Army barracks and as such much of the proposal does not interface with existing residential housing stock. Combine this with the modest increase in students it is considered that the extensions to the College minimises interfaces with residential zoned land. <b>Refer to Figures 7-5 and 7-6.</b>	Actions as per recommendation of specialist reports.
Visual Amenity	
As outlined in the plans, the bulk of the alternations and new builds are strategically located in the western portion of the. The campus green precinct and surrounds. The new primary building flanks the existing campus in the northwest portion of the site, interfacing with the Enoggera Army barracks and as such much of the proposal does not interface with existing residential housing stock. As demonstrated in the plans and aerials The visual amenity of the existing school, grounds, buildings are only no worsened by this proposal. It is considered that the scale of the proposal is consistent with the Master Plan. <b>Refer to Figures 7-4 and 7-5.</b> Parking and accesses are also well landscaped and designed so as to not be visually obtrusive in the surrounding setting.	No further actions are required.





Figure 7-5 Separation distances from Proposed new Primary building and Carrick wings.

Phorm Plans

URB20-039 Marist College Ashgrove 64



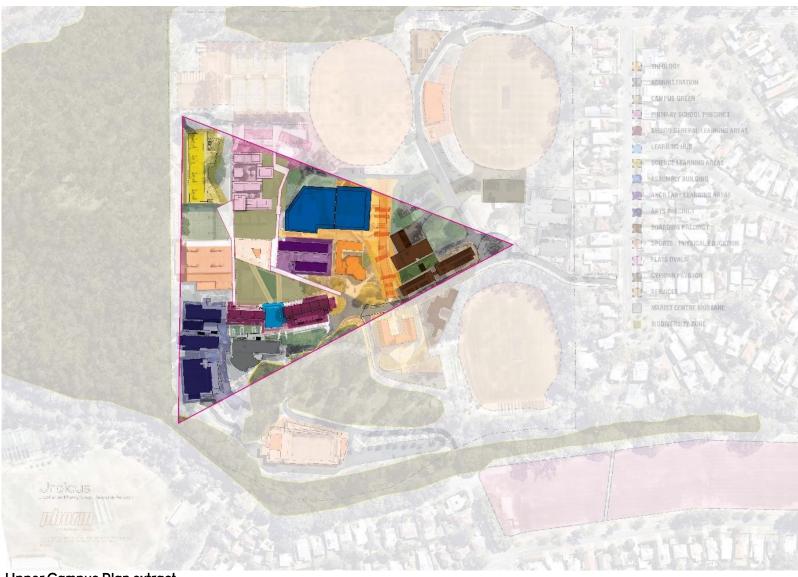


Figure 7-6 Source:

Upper Campus Plan extract
Phorm Plans



## 8 AFFECTED PARTIES AND STAKEHOLDERS

## 8.1 Affected Parties and Stakeholders

Affected parties and stakeholders with a potential interest in the proposed designation.

## 8.2 Pre-Engagement Consultation

The following table identifies the pre consultation activities carried out as part of the preengagement process for the proposed Ministerial designation.

Refer to the Appendices below.

- Appendix K Stakeholder Contact Information and Engagement
- Appendix L Stakeholder Information Pamphlet

Table 8 - Pre-Engagement Consultation Process

ACTIVITY	DESCRIPTION	AFFECTED PARTIES/STAKEHOLDERS
Pre-lodgement meeting	Meeting held with the Department of State Development, Manufacturing Infrastructure and Planning (DSDMIP) on 26 February 2021.	DSDMIP
Consult with Council	A Pre-lodgement request and meeting was conducted with Brisbane City Council on the 20 <sup>th</sup> May 2021.  The proposal was explained to the Council officers and generally understood. Council's items raised (key issues) revolved around the following:  - Traffic and car parking  - Vegetation and Waterway / Biodiversity Considerations  - Other minor / amenity matters	Brisbane City Council
Consult with elected representatives	A letter was sent to all elected representatives providing an overview of the development proposal and the intention to undertake the designation process.	Elected representatives
Pamphlet to adjoining land owners	Noticed outlined: - proposed Ministerial designation - land to which the proposed designation applies - type of infrastructure for which the land is proposed to be designated contact details for representatives of the School	Affected parties (i.e. directly affected landowners)
School Webpage	The College has a Masterplan Webpage in concert with the College Website. The link is below. This webpage will be updated during the various stages of the process. https://www.marash.qld.edu.au/about-mca/master-plan/ It is also noted that the College has a dedicated Community and Stakeholder Engagement officer to liaise with any residents or stakeholders.	All School community Broader community
Letter box drop	Letter box drop flyer to surrounding landowners / residents (beyond adjoining land owners) outline:  • 58 notices were delivered to residents on Monday 06/07/2021  • 5 residents attended the information session on Tuesday 13/07/2021  • Questions from the residents focused on parking and traffic.  • Both the college and architect team committed to continuing to review this matter  - proposed Ministerial designation  - land to which the proposed designation applies  - type of infrastructure for which the land is proposed to be designated	Affected parties (i.e. surrounding landowners)



				021 121 1021 12021	
Consult	with	traditional	A letter was sent to the traditional owners providing an	Traditional owners	
owners			overview of the development proposal and the intention to		
			undertake the designation process.		

# 8.3 Consultation Strategy

The following table identifies the continued consultation strategy for the Ministerial Infrastructure Designation.

Table 9 – Consultation Strategy

ACTIVITY	DESCRIPTION	AFFECTED PARTIES/STAKEHOLDERS
Notices	Issue notice to launch the consultation period. As per requirements of Schedule 4, Section 7 of Minister's Guidelines and Rules  Notice will outline:	Minister Affected parties (Brisbane City Council
	<ul> <li>proposed Ministerial designation</li> <li>land to which the proposed designation applies</li> <li>type of infrastructure for which the land is proposed to be designated contact details for representatives of the School</li> <li>-how the EAC can be viewed or accessed</li> <li>how to make a submission to the Minister within the 20 business day consultation period</li> <li>the day by when submissions may be made to the Minister</li> <li>contact details for representatives of the College</li> </ul>	
School Webpage	Webpage will outline:  - proposed Ministerial designation - land to which the proposed designation applies - type of infrastructure for which the land is proposed to be designated	All School community Broader community
Publish Public Notice	Publish public notice in the local paper Publish public notification signs on road frontages of the subject land. Public notice will address requirements of Schedule 4, Section 7 of Minister's Guidelines and Rules, outlining: - proposed Ministerial designation	All Broader community
	<ul> <li>land to which the proposed designation applies</li> <li>type of infrastructure for which the land is proposed to be designated contact details for representatives of the School</li> <li>how the EAC can be viewed or accessed</li> <li>how to make a submission to the Minister within the 20 business day consultation period</li> <li>the day by when submissions may be made to the Minister</li> </ul>	

#### 9 CONCLUSION

This EAC has been prepared by Urbicus Pty Ltd in accordance with Chapter 7 of the MGR, on behalf of Trustees of the Marist Brothers Trading as Marist College Ashgrove in accordance with Chapter 2, Part 5 of the Planning Act 2016 to facilitate a Ministerial Infrastructure Designation for Educational facilities (Schedule 5, Section 13, Part 2, Item 6 of the Planning Regulation 2017 ['PR']).

This request seeks the designation of infrastructure in accordance with Schedule 5 of the Planning Regulation 2017 (Planning Regulation). The following types of infrastructure are sought as part of this designation:

• Educational Facilities (Item 6).

This report provides an overview of the proposed infrastructure, along with an assessment of matters a designator must be satisfied with pursuant to Section 36 of the Planning Act and Chapter 7 of the MGR.

This report and associated appendices have provided a comprehensive assessment of the proposed development and the relevant assessment benchmarks prescribed in the applicable Local and State planning instruments.

The report has demonstrated that the application complies with the relevant assessment benchmarks. Where non-compliance is applicable, appropriate performance solutions / outcomes have been demonstrated.



#### **APPENDICES** 10 10.1 Appendix A – College Master Plans as prepared by Phorm Architects Appendix B - College Core Phases Plan as prepared by Phorm Architects 10.2 Appendix C - DSDILGP Pre-lodgement minutes - Marist College Ashgrove 10.3 Appendix D - Traffic Engineering Assessment Report as prepared by BMC Consulting 10.4 10.5 Appendix E - Bushfire Assessment as prepared by S5 Consulting Appendix F - Ecological Assessment Report as prepared by S5 Consulting 10.6 Appendix G – Survey Data as prepared by Phorm 10.7 Appendix H – Vegetation Retention Plans as prepared by S5 Consulting 10.8 Appendix I – Services & Engineering Letter as prepared by Bligh Tanner 10.9 10.10 Appendix J – Tower Block and Memorial Gates Heritage Citation Appendix K - Stakeholder Contact Info and Engagement 10.11 10.12 Appendix L – Stakeholder Information Pamphlet



# **APPENDICES**



planning@urbicus.com.au urbicus.com.au ABN 16 408 042 084



DRAWING REGISTER: TRANSMITTAL ADVICE

PROJEC Marist College Ashgrove

JOB No: ph>20.07

Day 01 Month 09 Year 21

DWG No.	DESCRIPTION/TITLE	REVISION

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MID 010	EXISTING SITE PLAN	1:2500	Α														
MID 015	EXISTING ACCESS PLAN	1:2500	Α														
MID 016	PROPOSED ACCESS PLAN	1:2500	Α														
MID 020	SITE DEMOLITION PLAN	1:2500	Α														
MID 050	PROPOSED DEVELOPMENT SITE PLAN	1:2500	Α														
MID 055	PROPOSED SITE REFERENCE PLAN	1:2500	Α														
MID 060	PROPOSED BUILDING HEIGHT REFERENCE	1:2500	Α														
MID 100	UPPER CAMPUS PRECINCT PLAN	1:1000	Α														
MID 120	PROP. PRIMARY SCHOOL BUILDING	1:500/1:250	Α														
MID 130	CARRICK WING ALT. + ADDITION	1:500/1:250	Α														
	PROP. LEARNING HUB BUILDING																
MID 140	CHAMPAGNAT CENTRE ADDITION	1:500/1:250	Α														
MID 150	SCIENCE BUILDING GLA ADDITION	1:500/1:250	Α														
MID 200	ART WALK PRECINCT PLAN	1:600	Α														
MID 210	MUSIC ROOM ALT. + ADDITION	1:500/1:250	Α														
MID 220	PROP. MUSIC ANNEXE BUILDING	1:500/1:250	Α														
MID 300	TOWER WALK PRECINCT PLAN	1:600	Α														
MID 310	DINING COMPLEX ALT. + ADDITION	1:500/1:250	Α														
MID 320	PROPOSED CAR PARK	1:500	Α														
MID 500	OVAL 01 PRECINCT PLAN	1:1000	Α														
MID 510	PROP. BR CYPRIAN PAVILION	1:500	Α													<u> </u>	
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MID 600	COLLEGE ASSEMBLY PRECINCT	1:600	Α													<b>└</b>	
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Builder:														
Engineer:														П
Services:														П
Authority:	1													П
Other:														П
Document Type:														
P=Print D=Document E=Electronic K=Disk F=PDF	E													
Purpose				•	•				•	•	•	•		
P=Preliminary A=Approval R=Revision T=Tender	Р													
C=Construction I=Information														
Delivery														
C=Courier H=Hand P=Post F=Fax E=Email	E													

## Marist College Ashgrove ph>20.07

## **Ministerial Infrastructure Designation - MASTERPLAN**

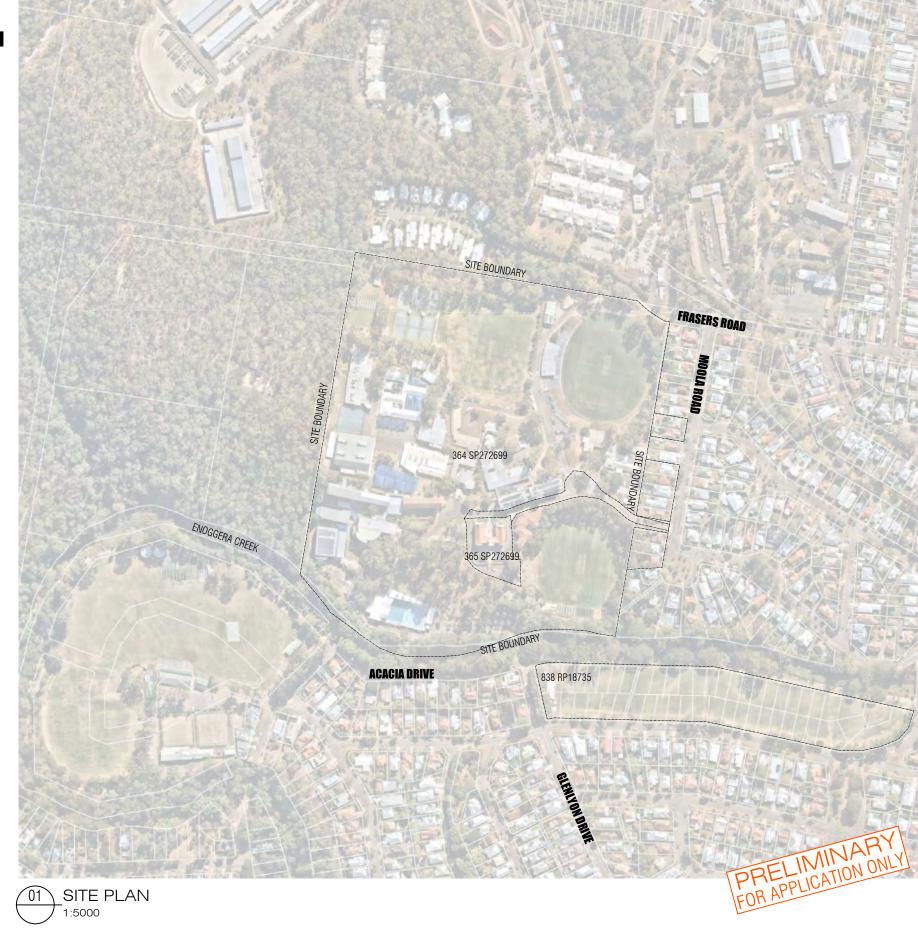
Lot 364 on SP272699 Brisbane City Council

Ward of ENOGGERA

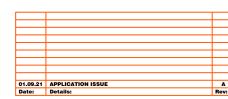
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#### ARCHITECTURAL

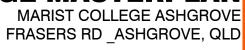
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MID050	PROPOSED DEV. SITE PLAN	1:2500
MID055	PROPOSED SITE REF. PLAN	1:2500
MID060	PROPOSED BLDG HEIGHT REF. PLAN	1:2500
MID100 MID120 MID130	UPPER CAMPUS PRECINCT PLAN PROP. PRIMARY SCHOOL BUILDING CARRICK WING ALT. + ADDITION PROP. LEARNING HUB BUILDING	1:1000 1:500/1:250 1:500/1:250
MID140	CHAMPAGNAT CENTRE ADDITION	1:500/1:250
MID150	SCIENCE BUILDING GLA ADDITION	1:500/1:250
MID200	ART WALK PRECINCT PLAN	1:600
MID210	MUSIC ROOM ALT. + ADDITION	1:500/1:250
MID220	PROP. MUSIC ANNEXE BUILDING	1:500/1:250
MID300	TOWER WALK PRECINCT PLAN	1:600
MID310	DINING COMPLEX ALT. + ADDITION	1:500/1:250
MID320	PROPOSED CAR PARK	1:500
MID500	OVAL 01 PRECINCT PLAN	1:1000
MID510	PROP. BR CYPRIAN PAVILION	1:500/1:250
MID600 MID610	COLLEGE ASSEMBLY PRECINCT PLAN ASSEMBLY COMPLEX	1:600 1:500



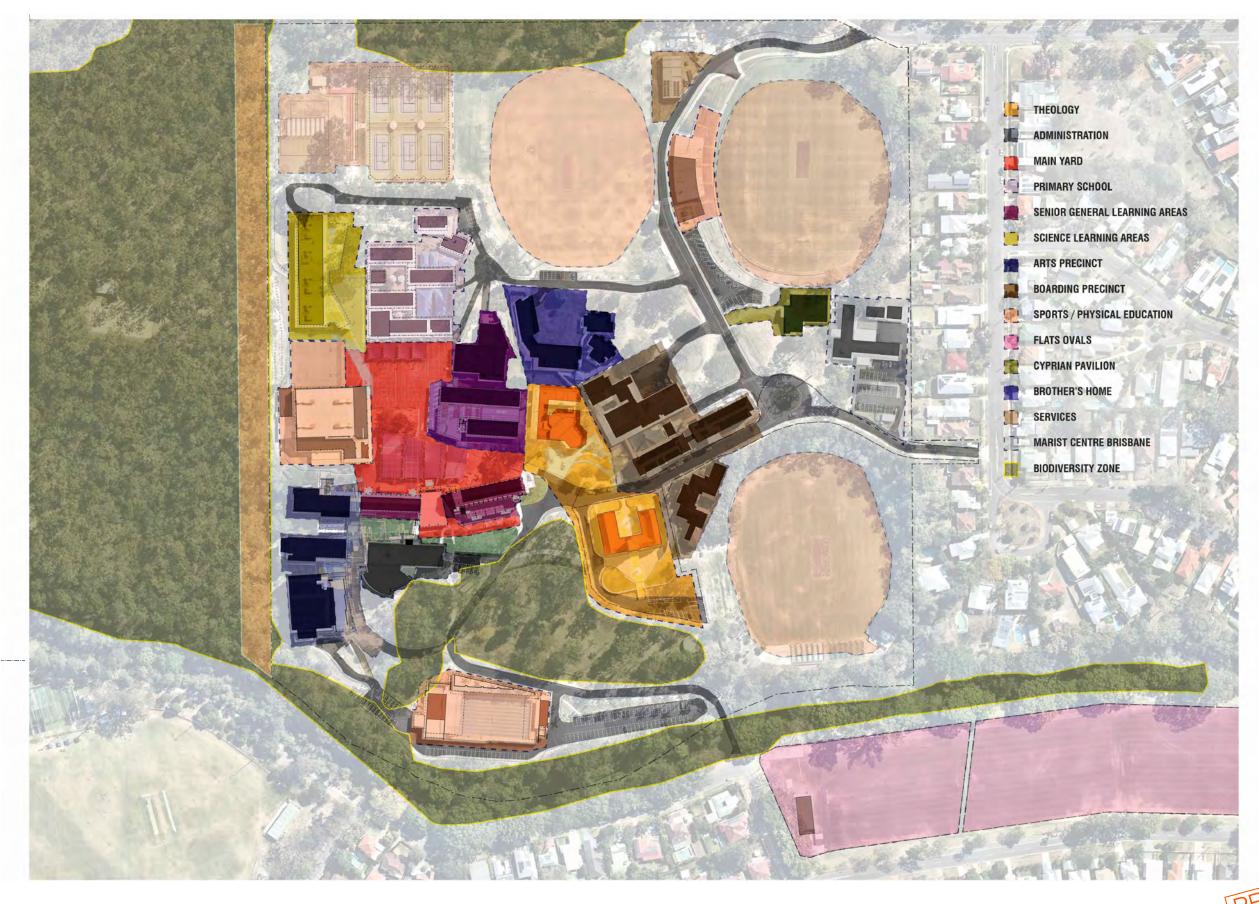




MARIST COLLEGE MASTERPLAN SITE PLAN 1:5000







01 EXISTING SITE PLAN

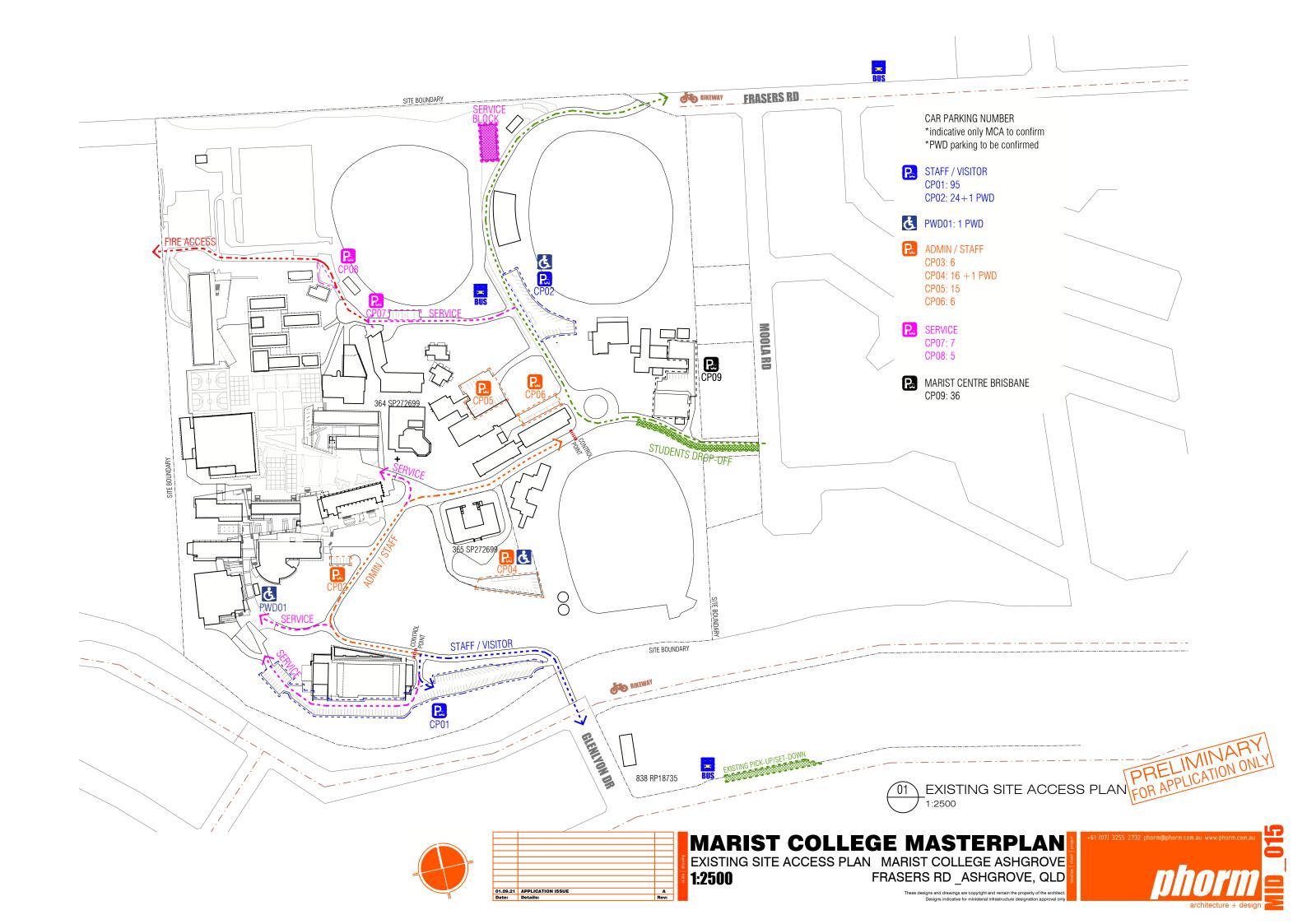


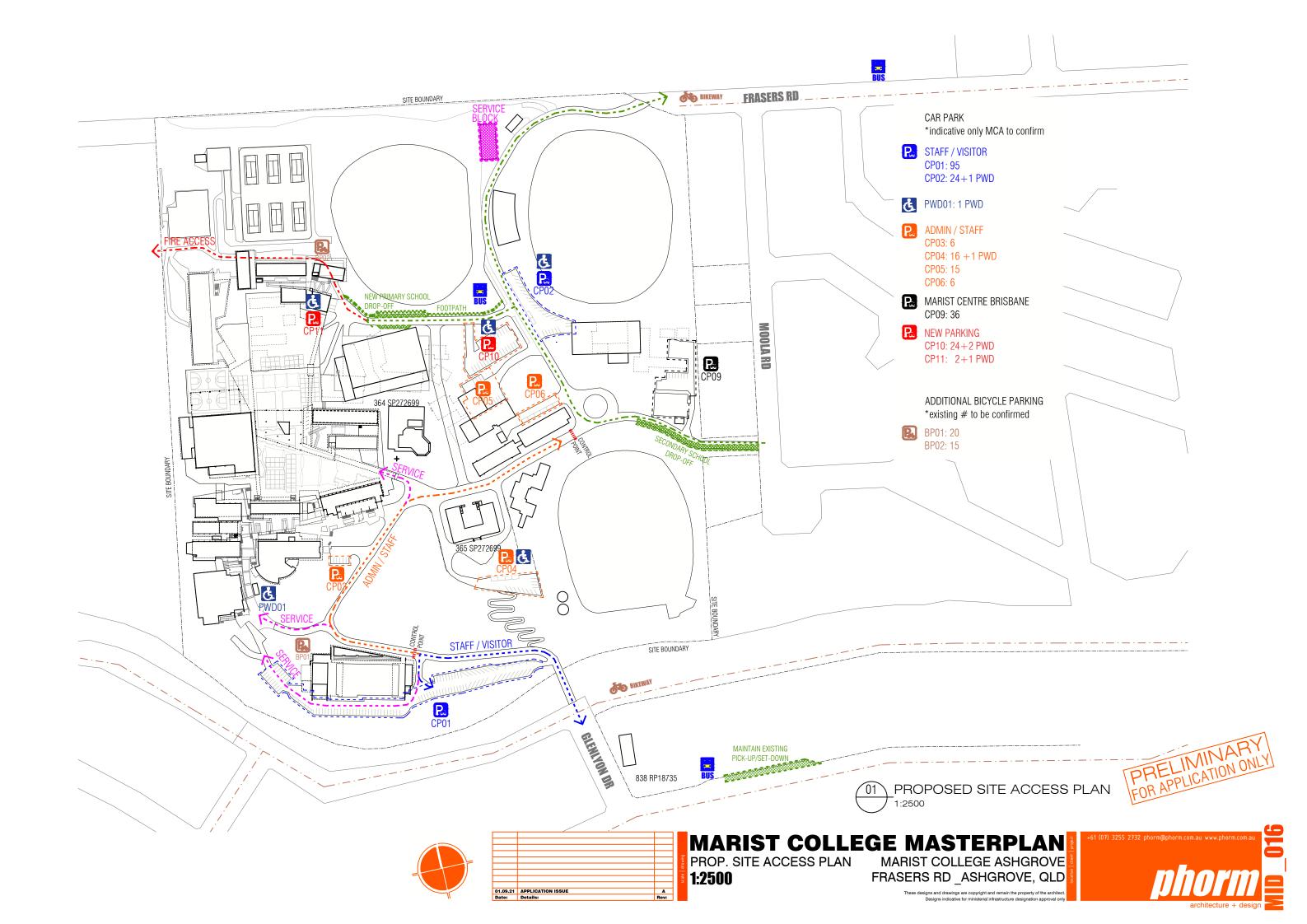


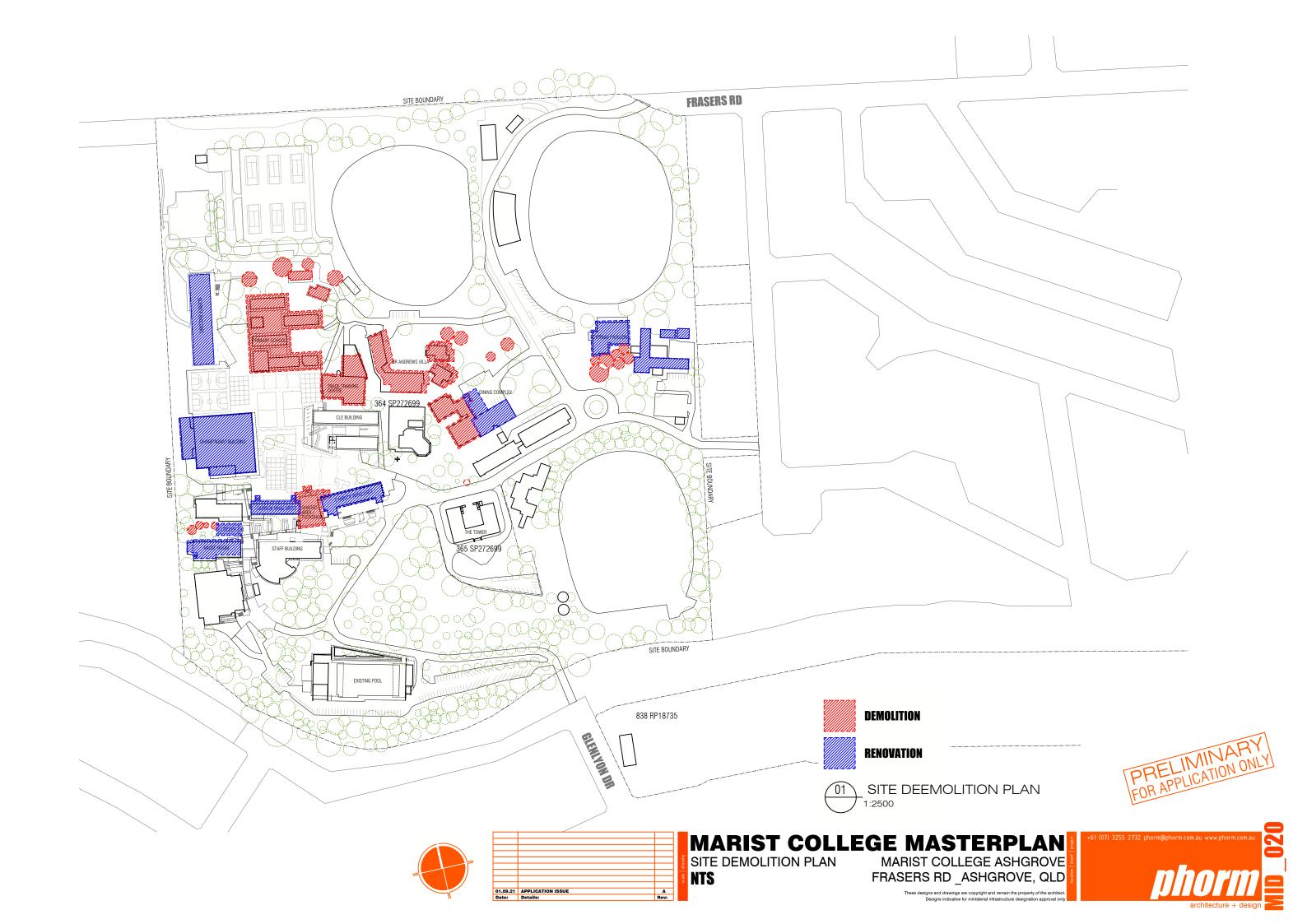
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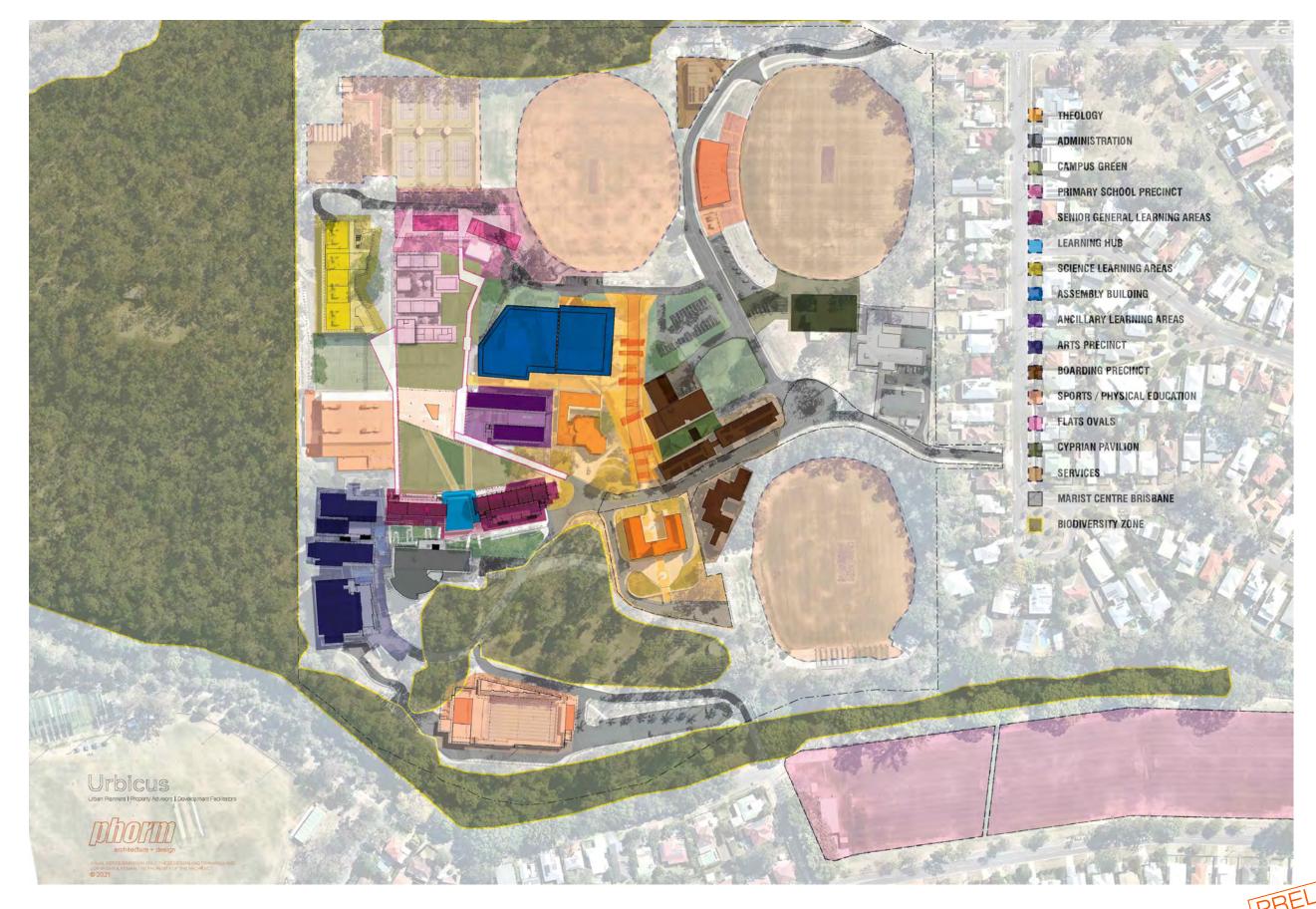
MARIST COLLEGE ASHGROVE FRASERS RD \_ASHGROVE, QLD





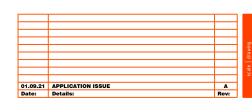






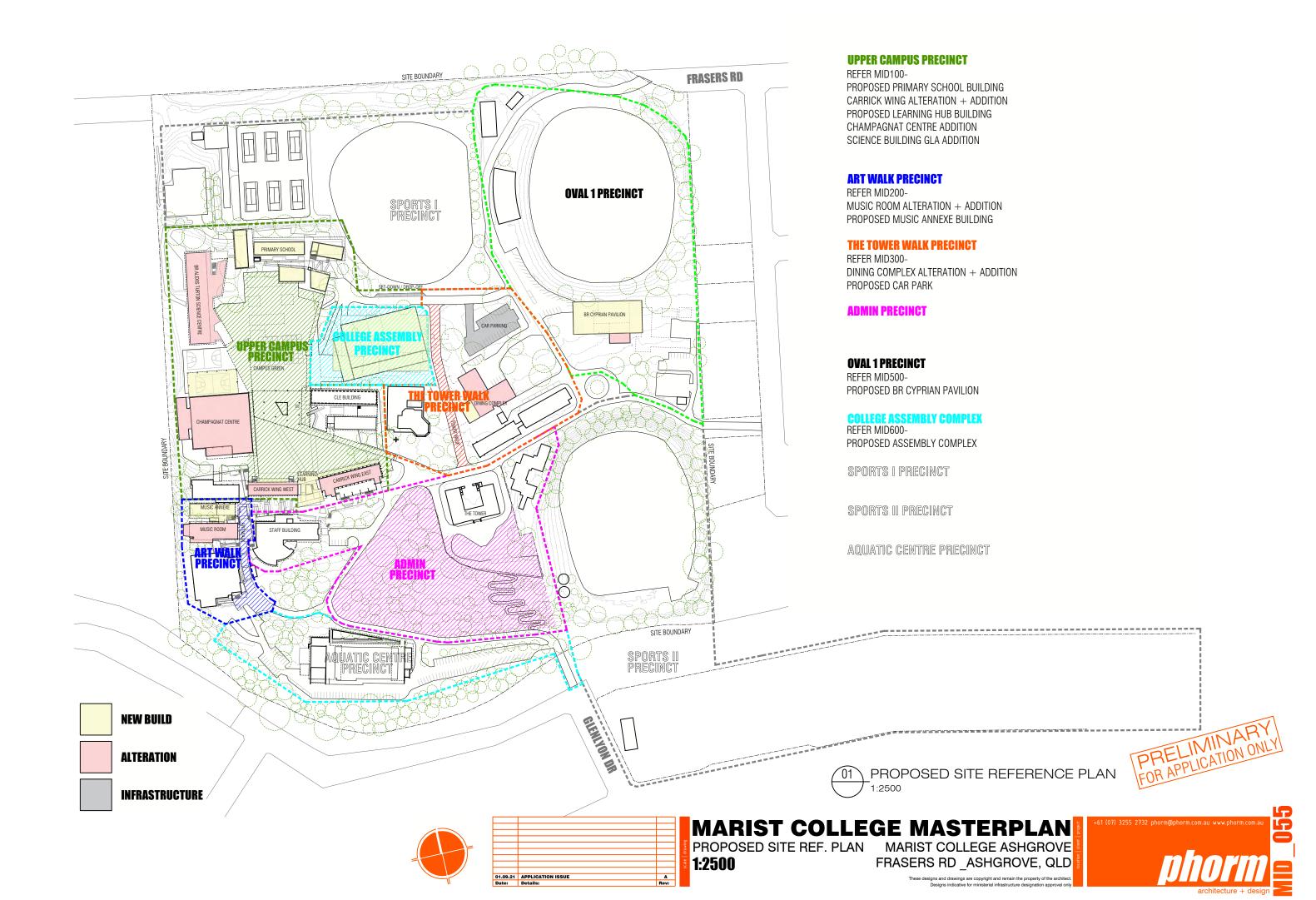
PROPOSED DEVELOPMENT SITE PLAN

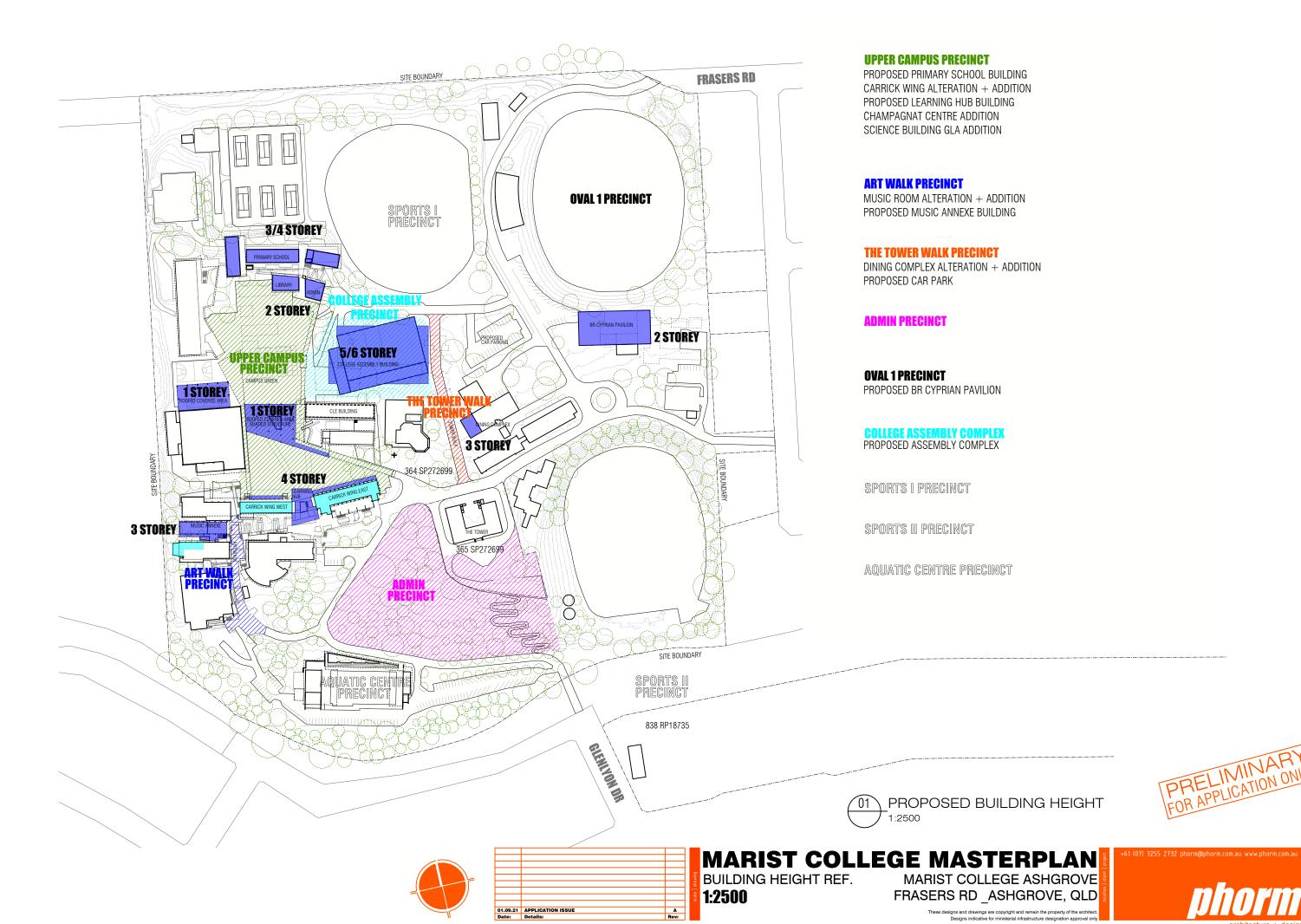


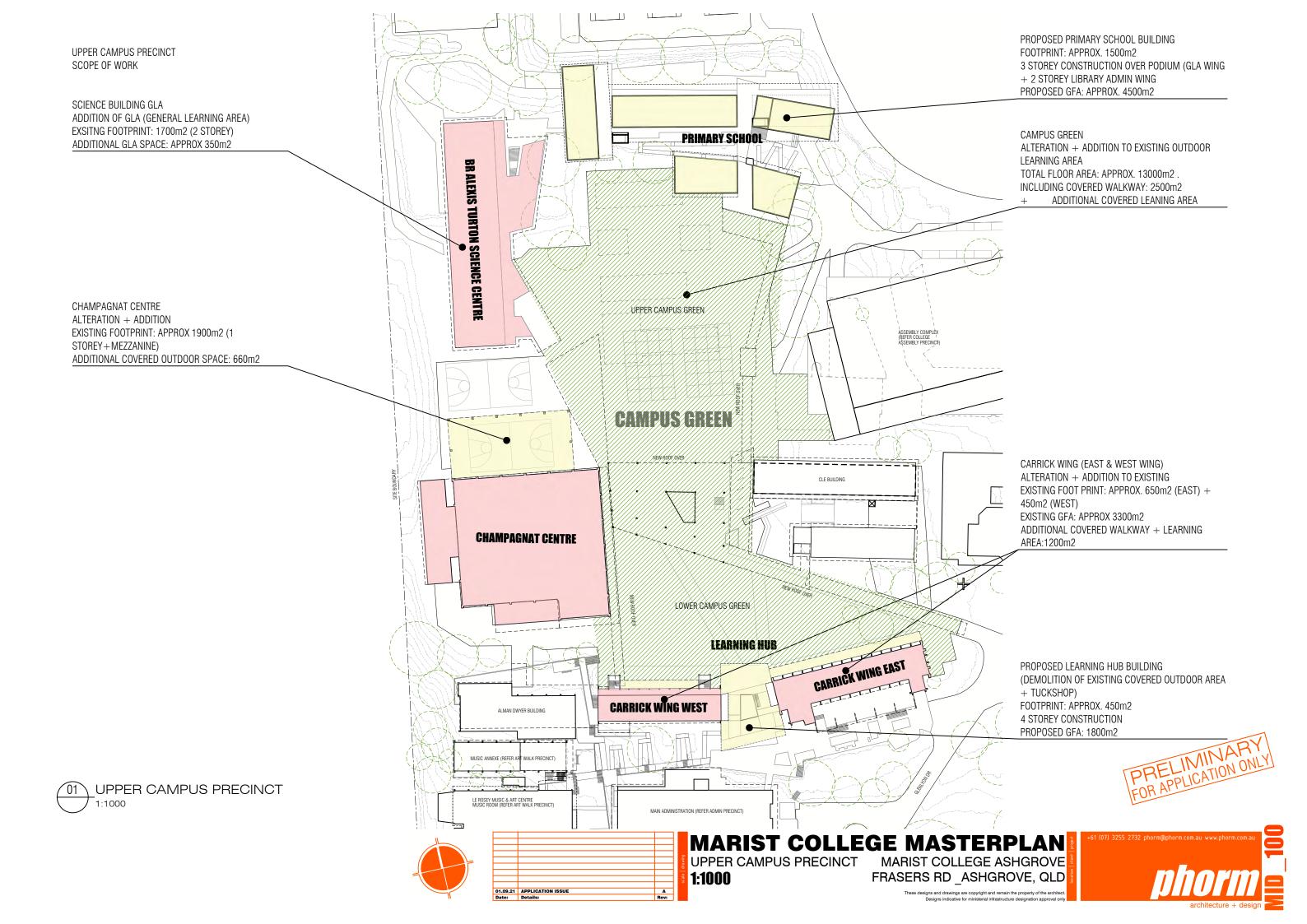


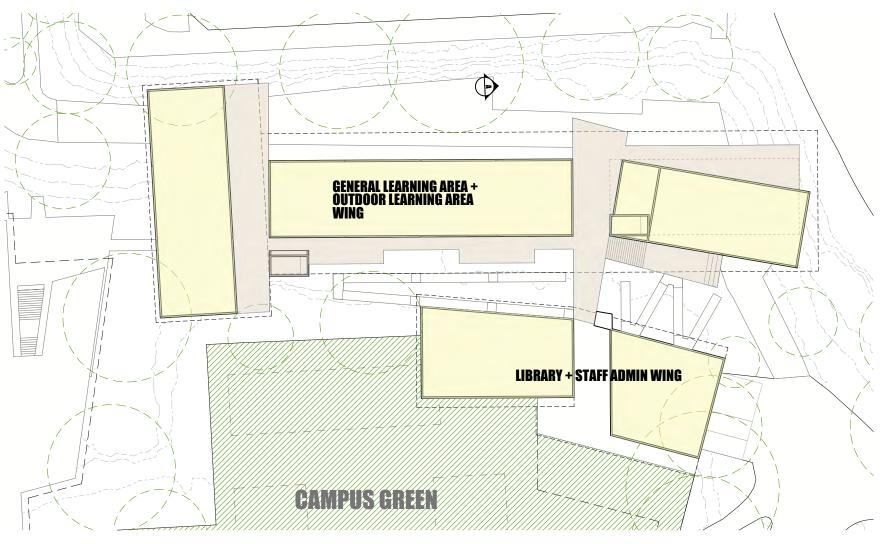
## MARIST COLLEGE MASTERPLAN PROPOSED DEV. SITE PLAN MARIST COLLEGE ASHGROVE 1:2500











PROPOSED PRIMARY SCHOOL BUILDING FOOTPRINT: APPROX. 2100m2 3 STOREY CONSTRUCTION OVER PODIUM (GLA) + 2 STOREY (LIBRARY + ADMIN WING) PROPOSED GFA: APPROX. 4500m2

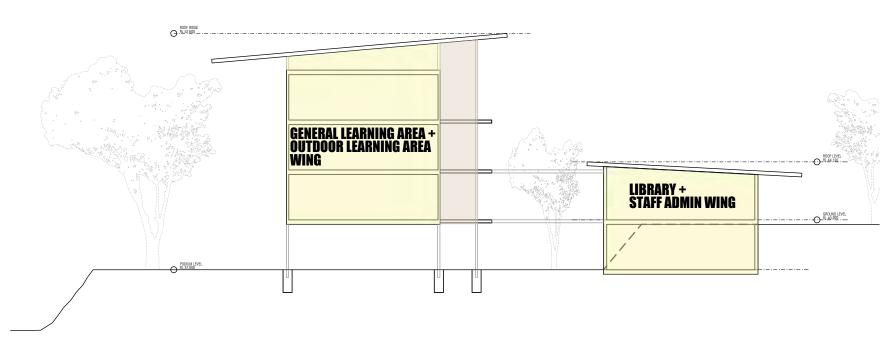
GENERAL LEARNING AREA + OUTDOOR SPACE WING

FOOTPRINT: APPROX. 1400m2 3 STOREY OVER PODIUM GFA: APPROX. 3700m2 LIBRARY + STAFF ADMIN WING FOOTPRINT: APPROX. 415m2

2 STOREY

GFA: APPROX. 800m2

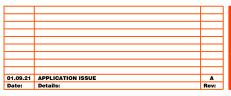
GROUND LEVEL PLAN



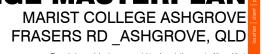




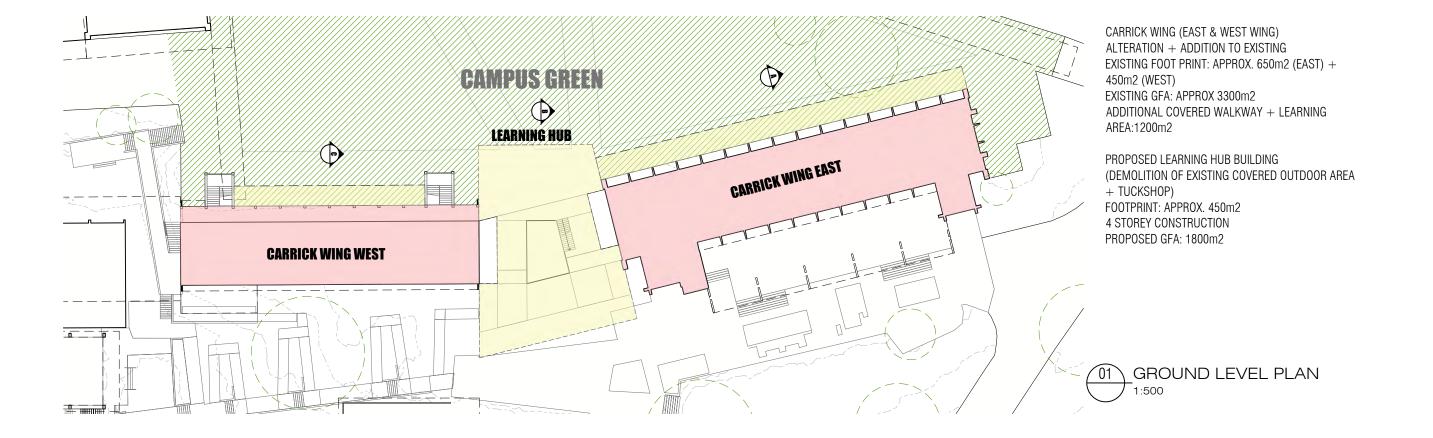


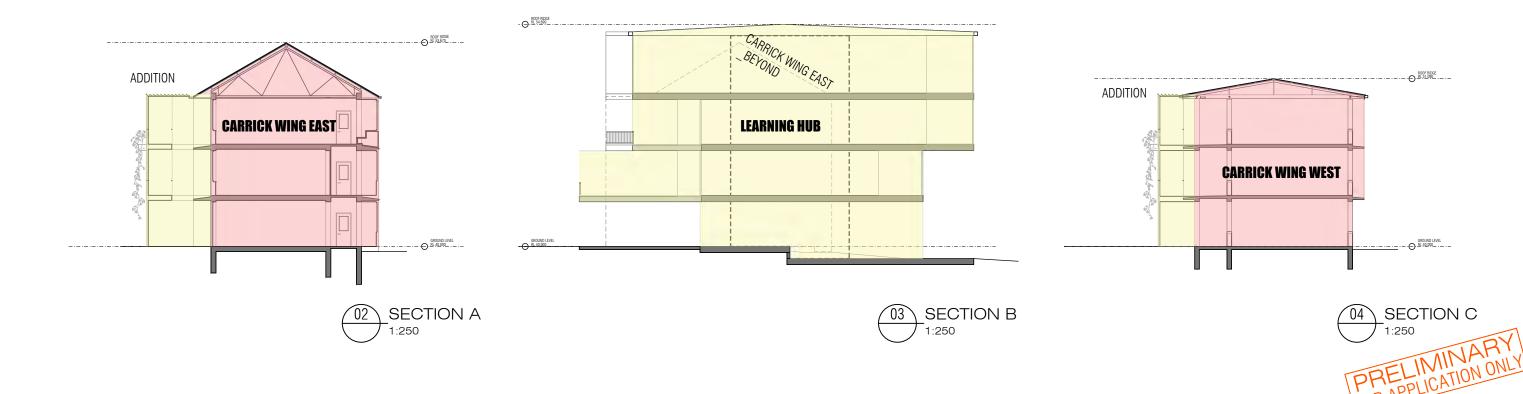


MARIST COLLEGE MASTERPLAN PRIMARY SCHOOL 1:500 / 1:250

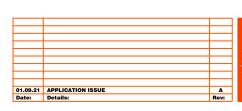








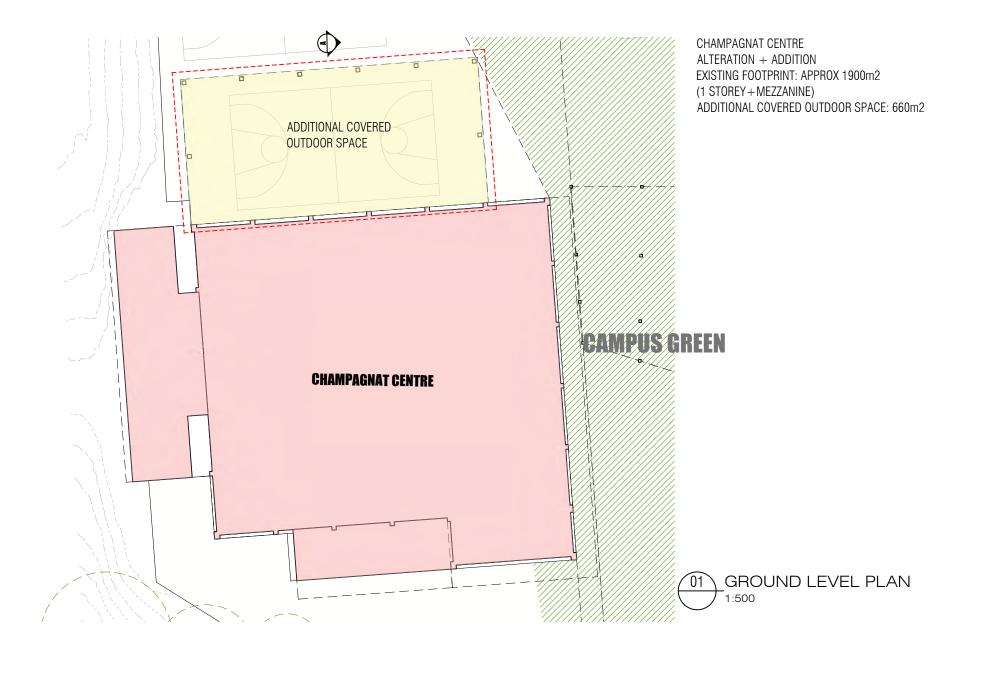


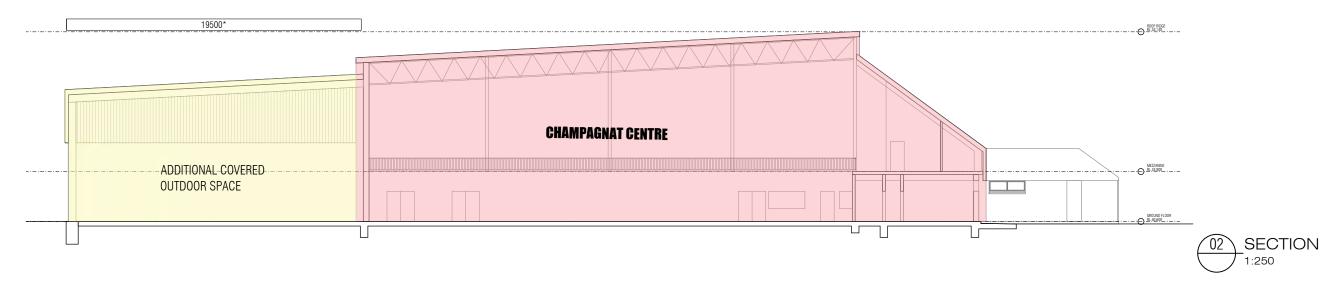


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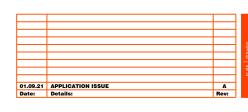




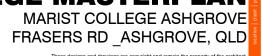




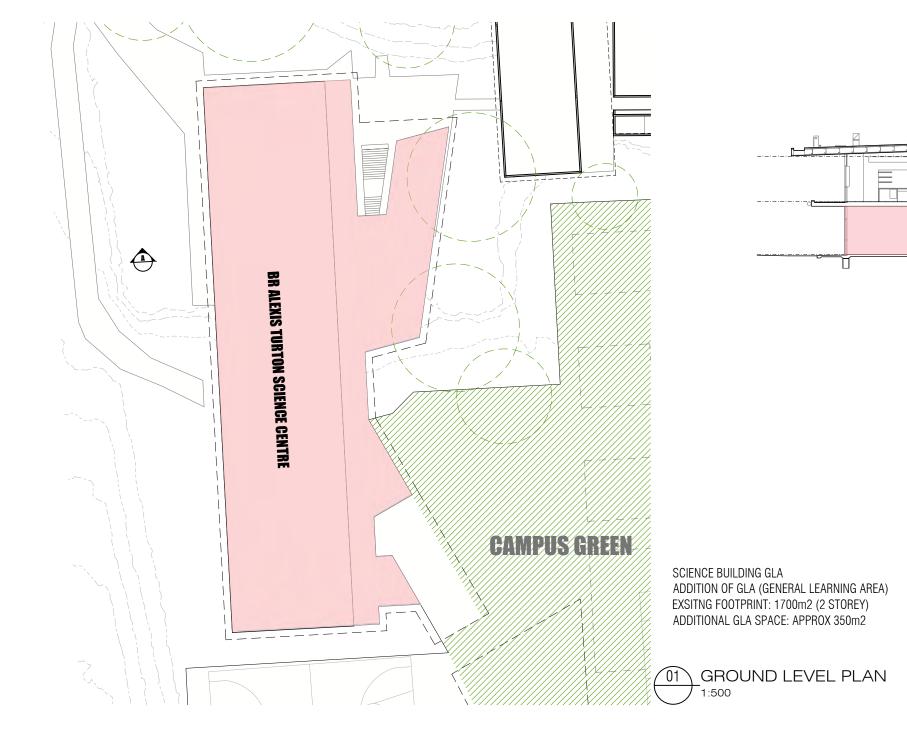










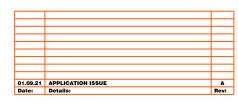




CAMPUS GREEN

SECTION 1:250

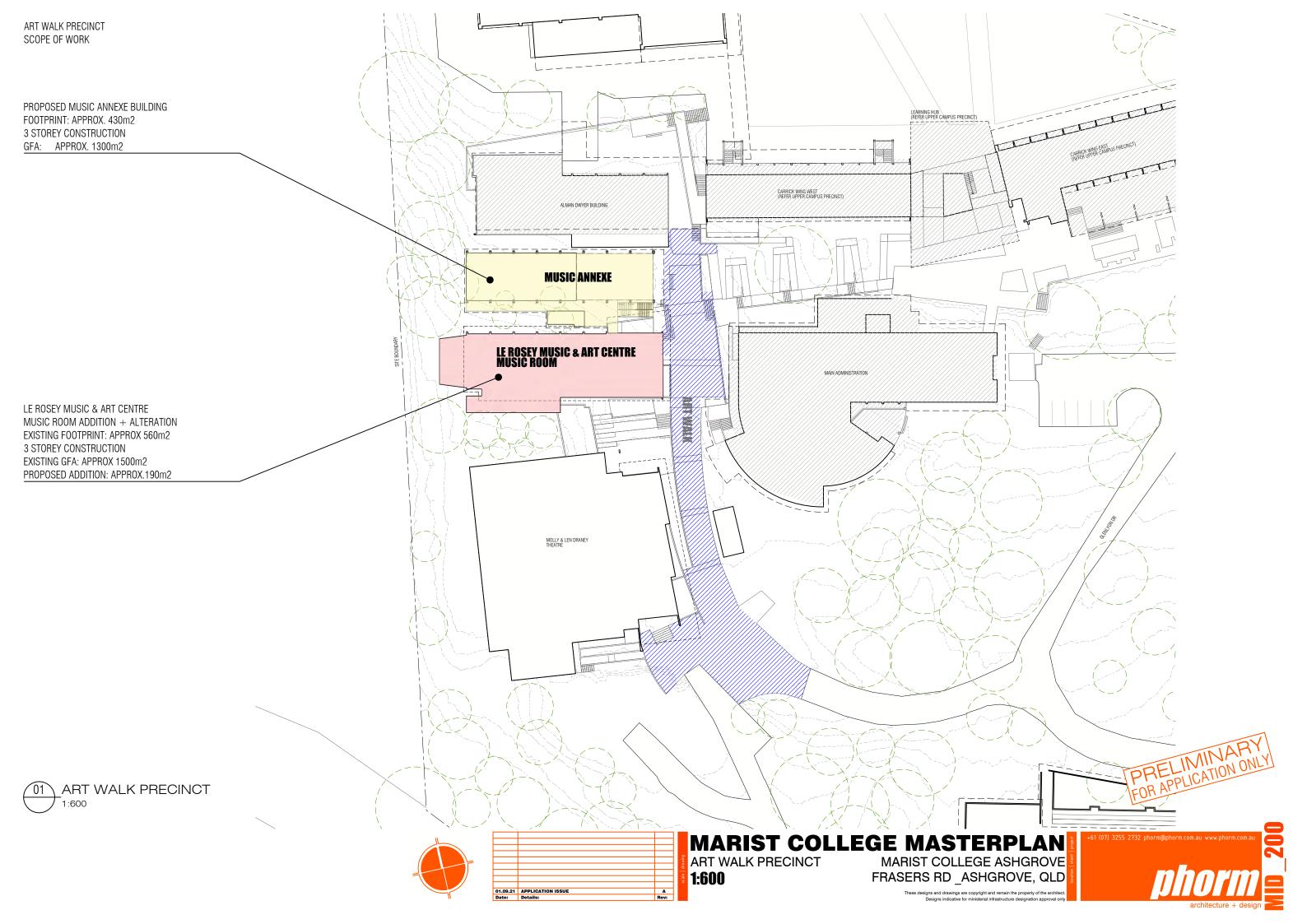


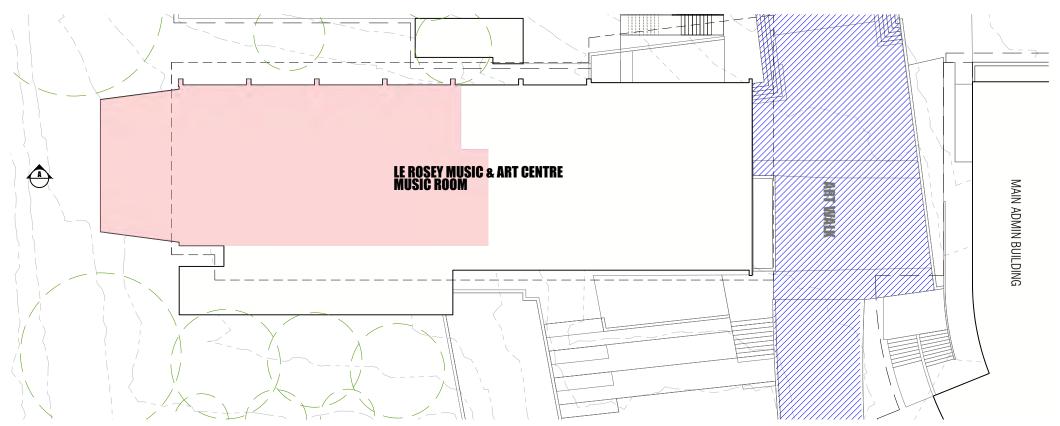


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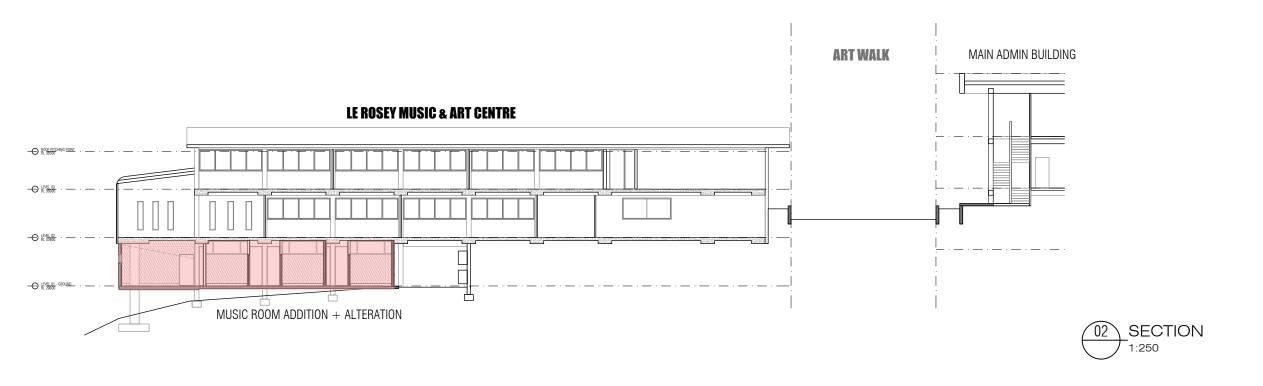






LE ROSEY MUSIC & ART CENTRE MUSIC ROOM ADDITION + ALTERATION EXISTING FOOTPRINT: APPROX 560m2 3 STOREY CONSTRUCTION EXISTING GFA: APPROX 1500m2 PROPOSED ADDITION: APPROX.190m2

GROUND LEVEL PLAN

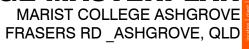




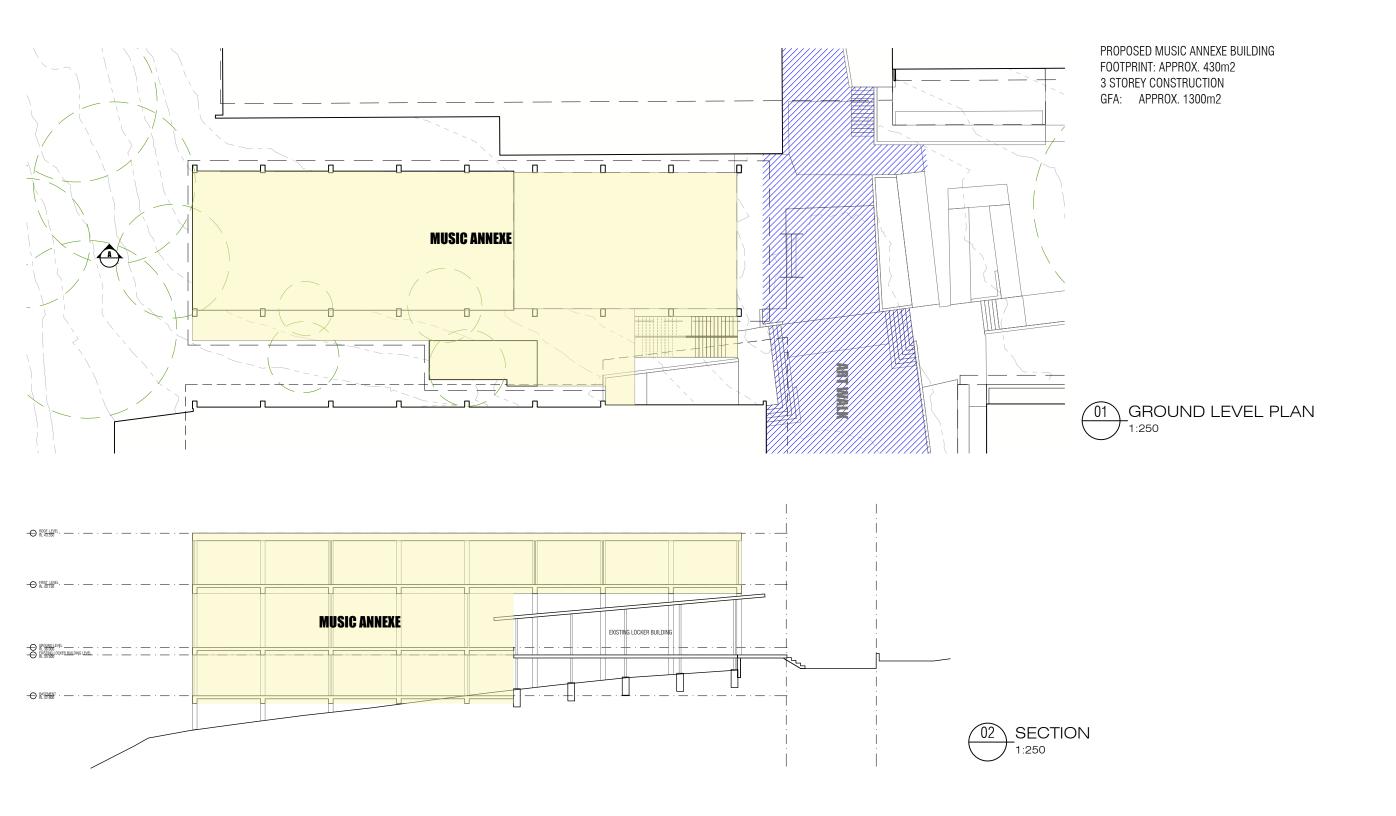




MARIST COLLEGE MASTERPLAN MUSIC & ART CENTRE 1:250







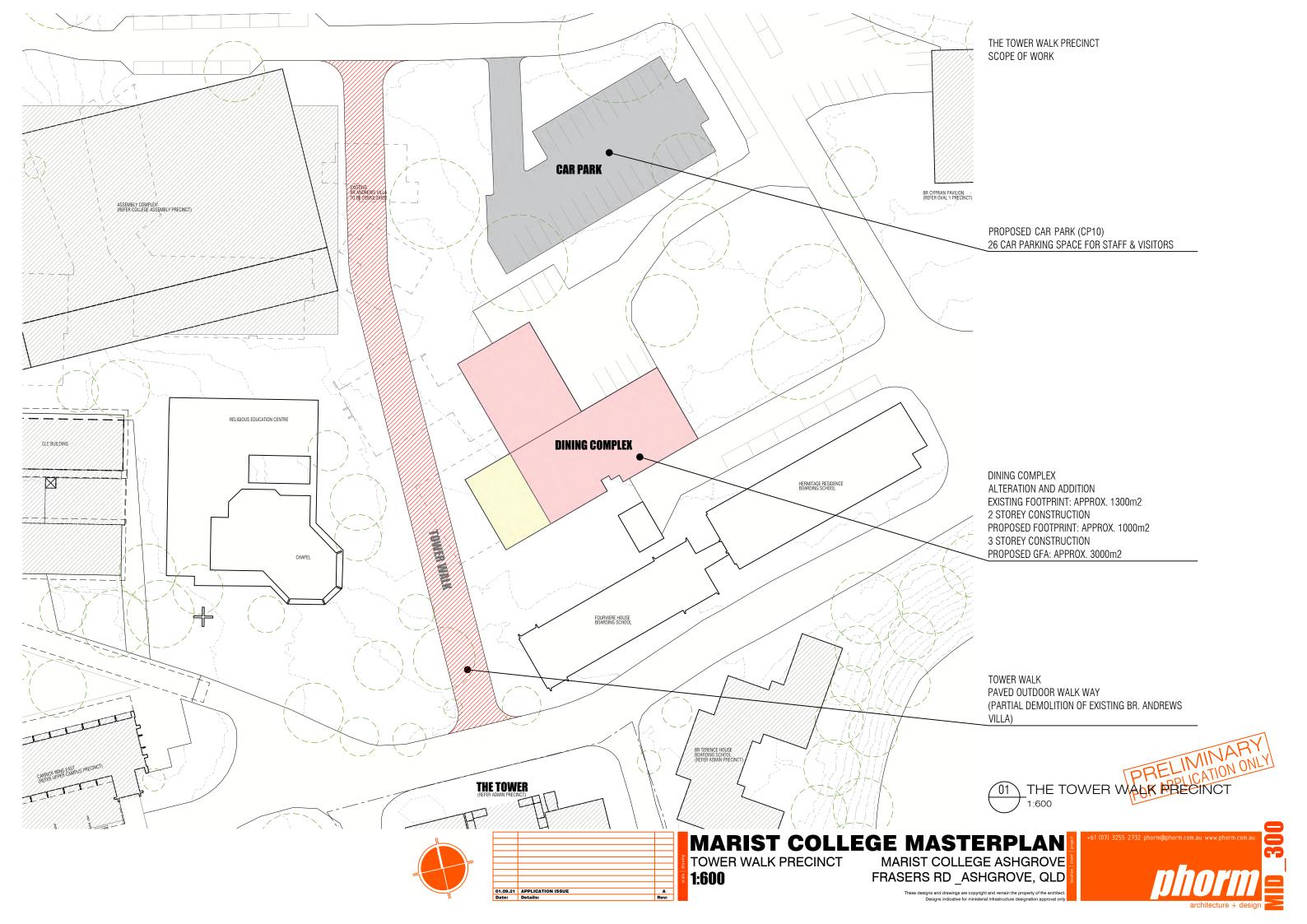


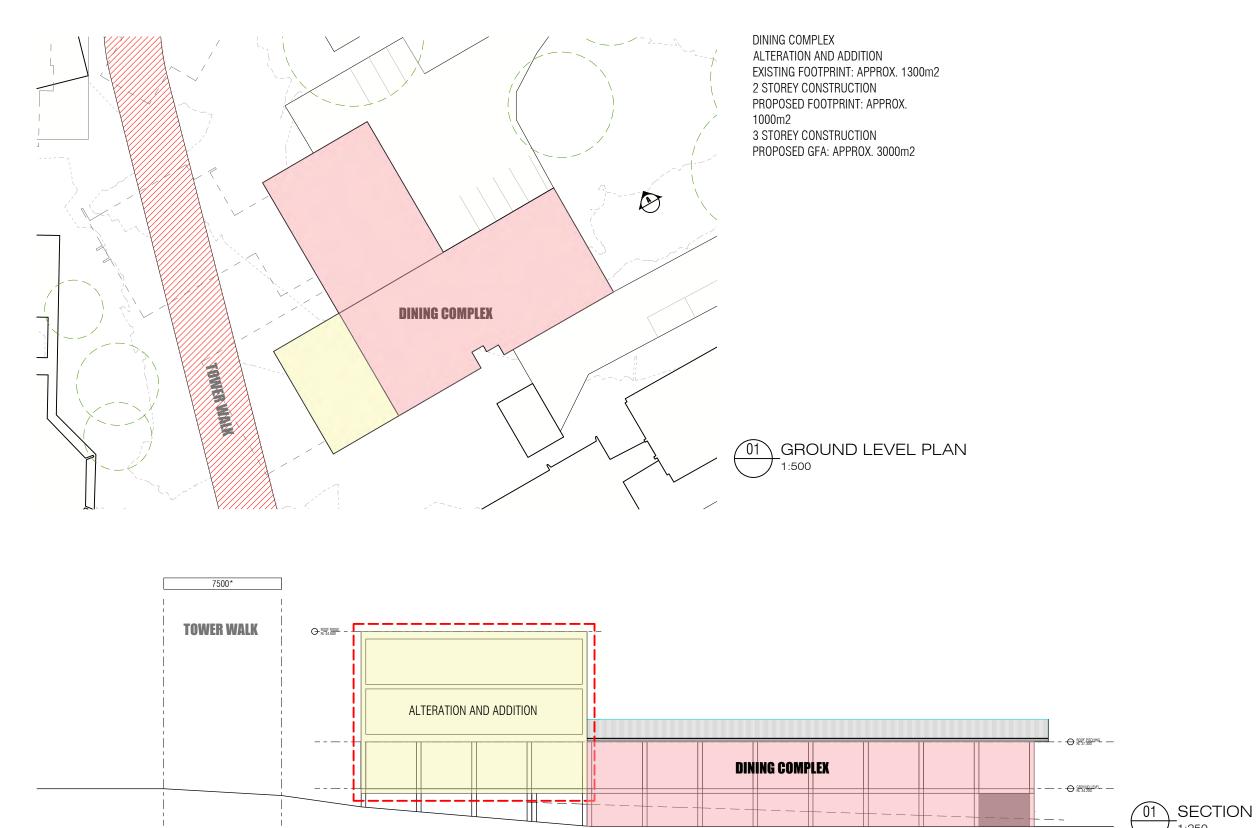






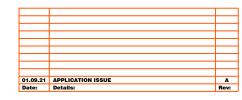








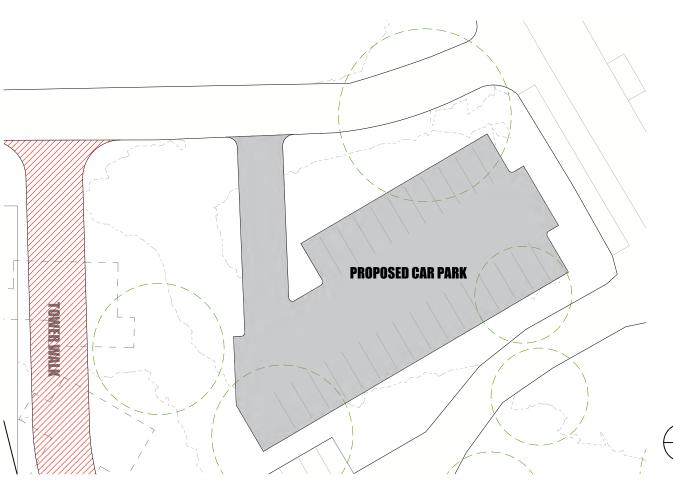












PROPOSED CAR PARK 26 CAR PARKING SPACE FOR NEW PRIMARY SCHOOL STAFF & TEMPORARY **PURPOSE** APPROX 1000m2

01 GROUND LEVEL PLAN



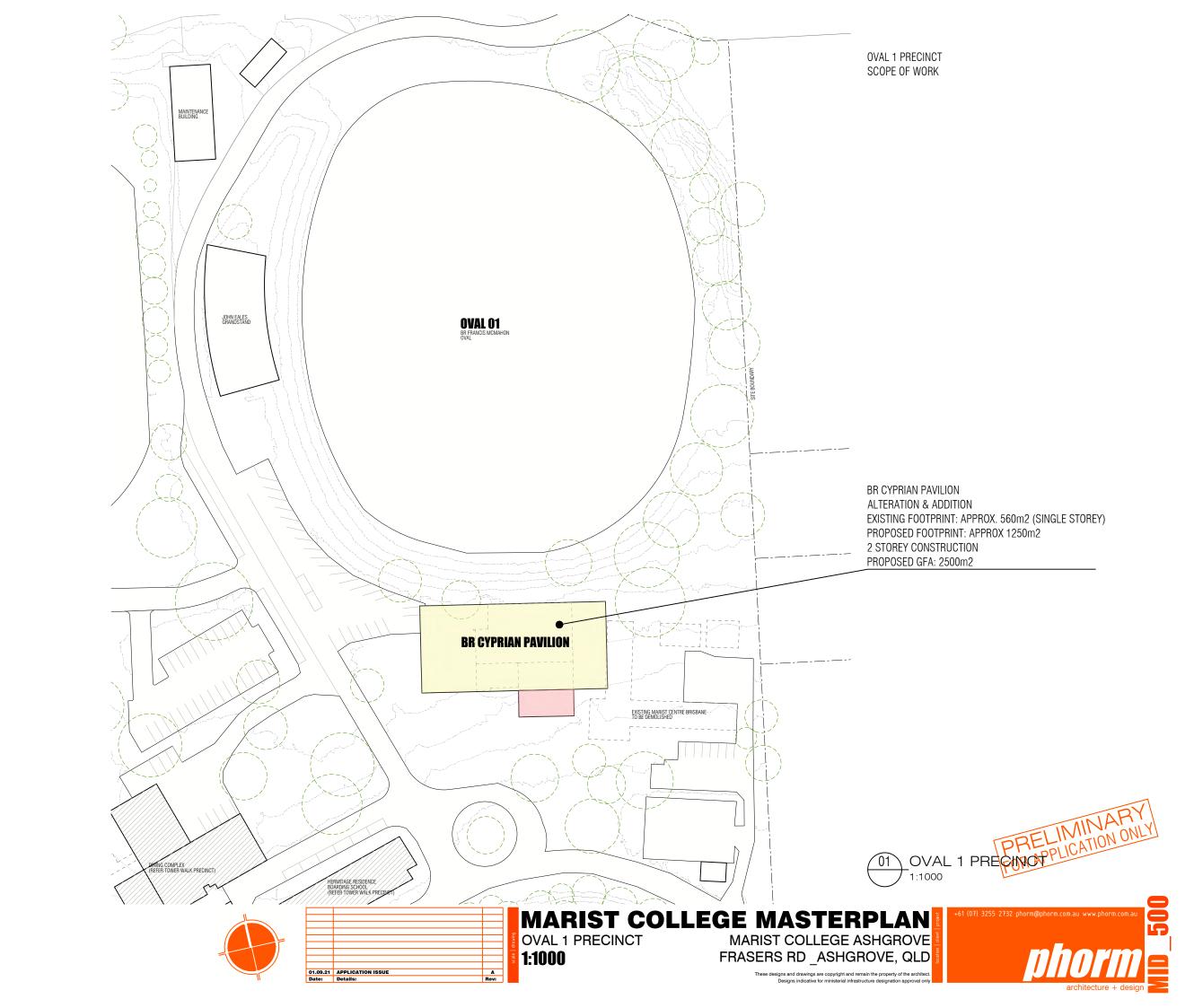


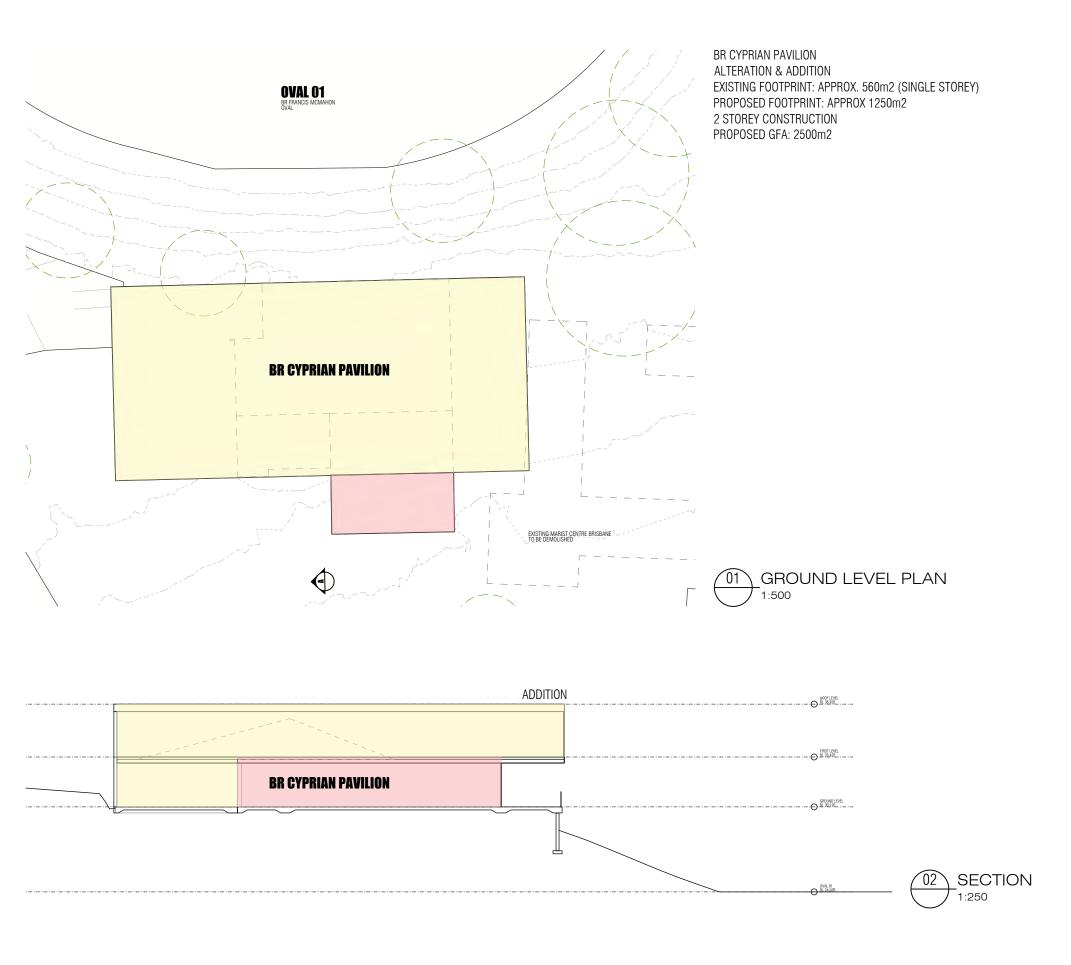


MARIST COLLEGE MASTERPLAN TOWER WALK: CAR PARK 1:500







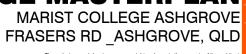




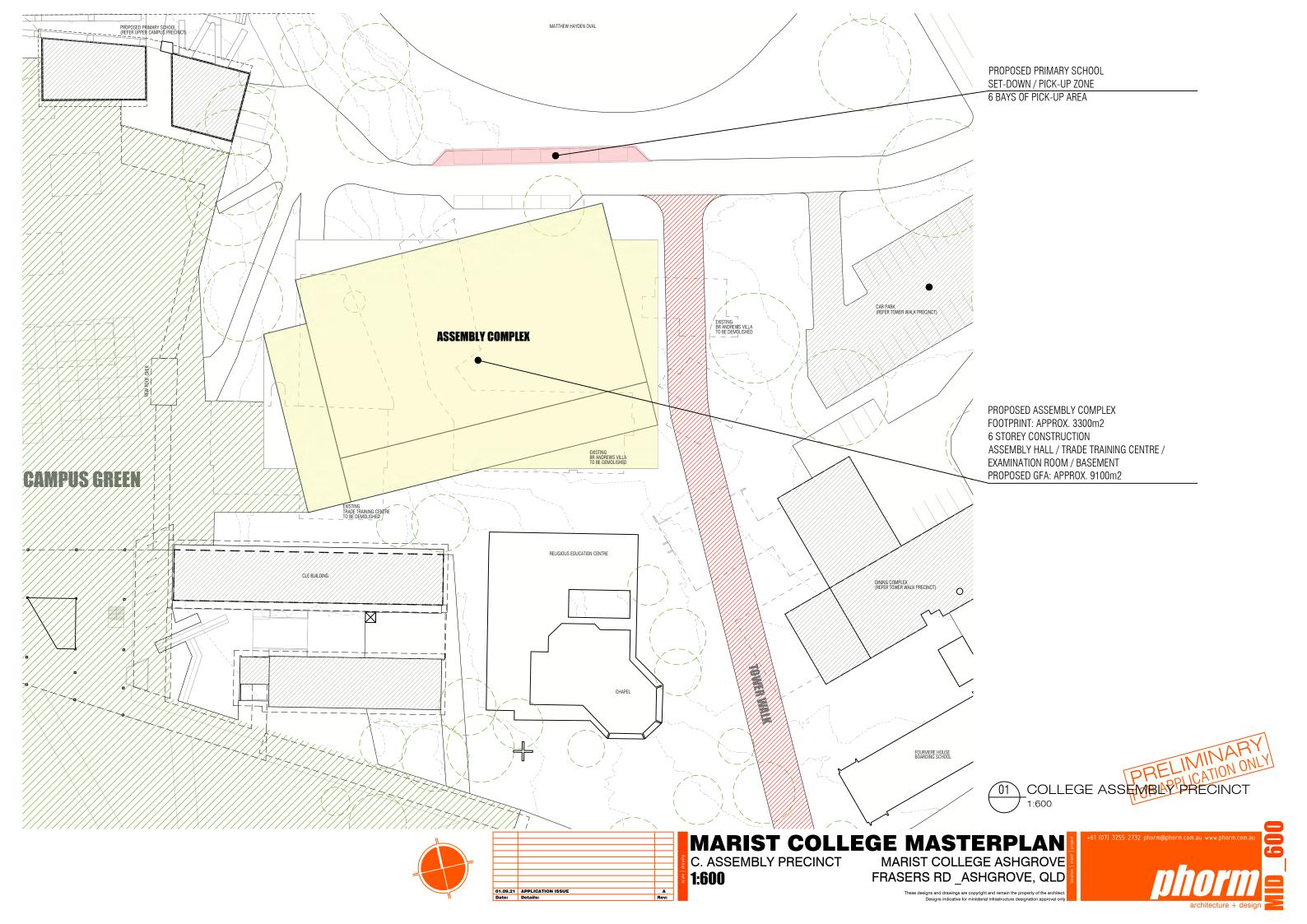


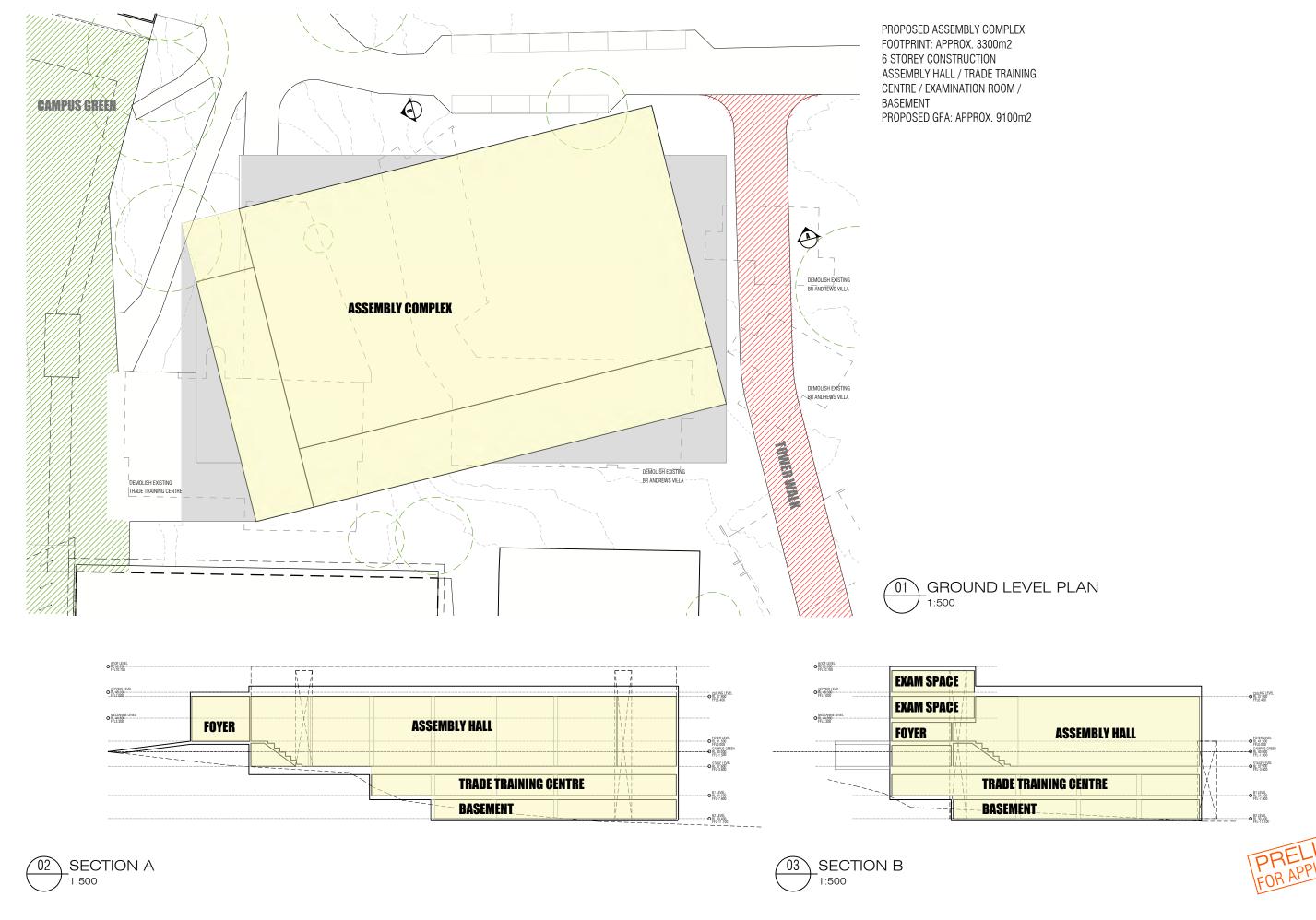
















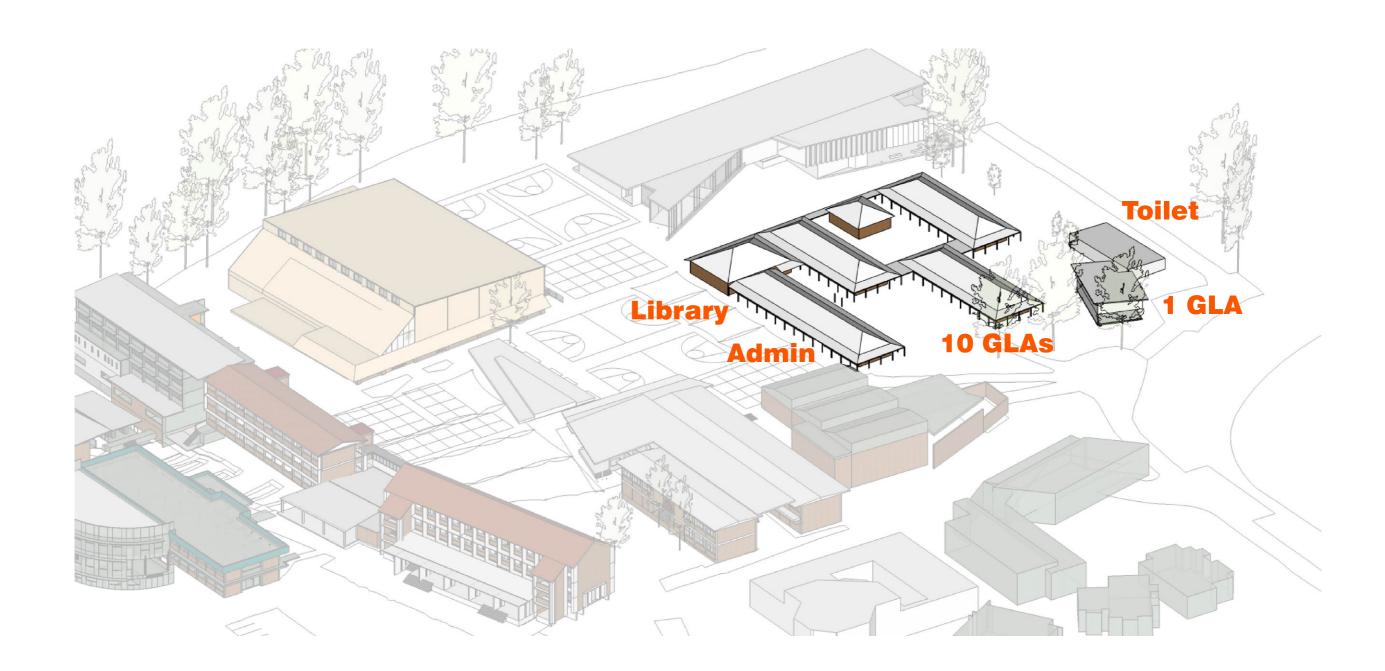
MARIST COLLEGE MASTERPLAN ASSEMBLY COMPLEX 1:500 / 1:500





## COLLEGE CORE INDICATIVE STAGING STRATEGY





## **CURRENT / EXISTING**

Ministerial Designation
Design Documentation
Funding Application

## **COLLEGE CORE PHASES**

06.09.21 - APPLICATION ISSUE - A

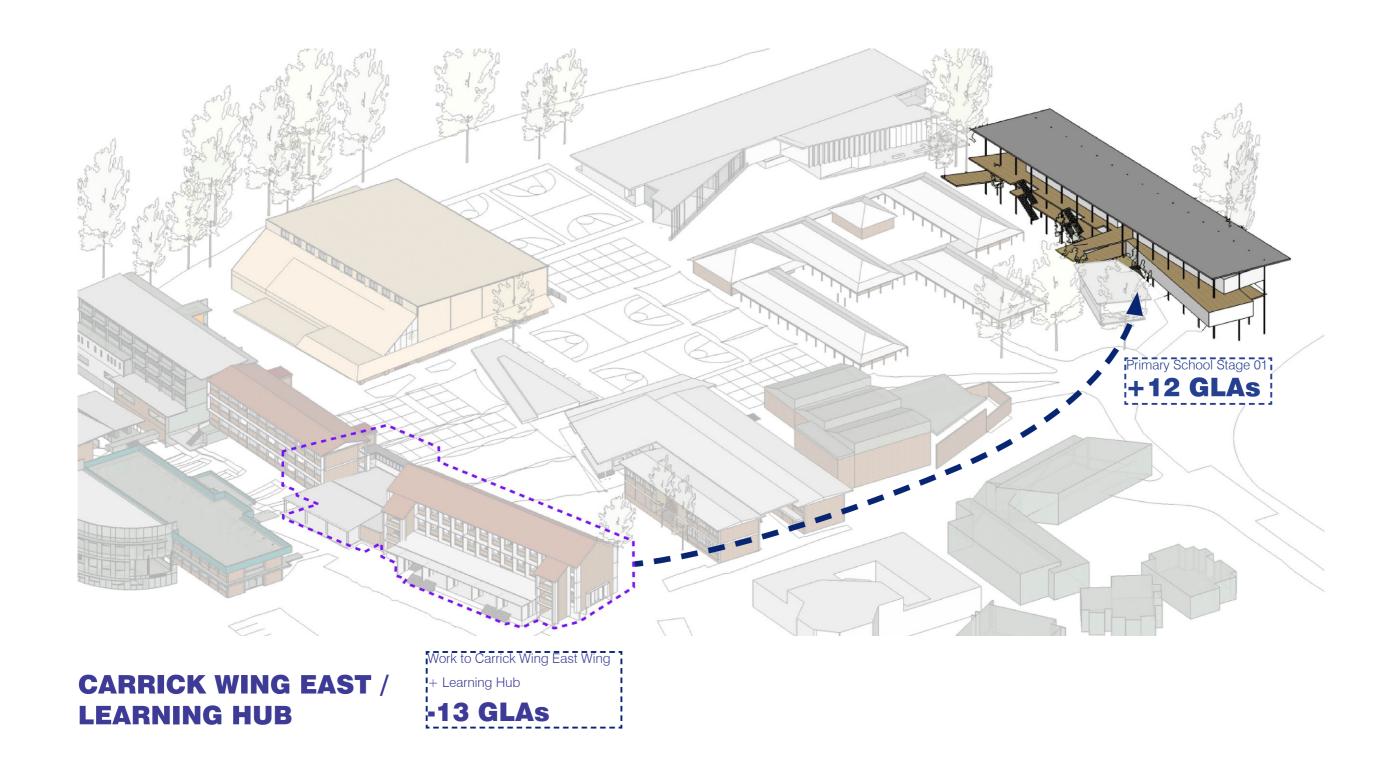




## NEW PRIMARY SCHOOL

## PHASE 1 STAGE 1 Primary School Stage 01





## PHASE 1 STAGE 2

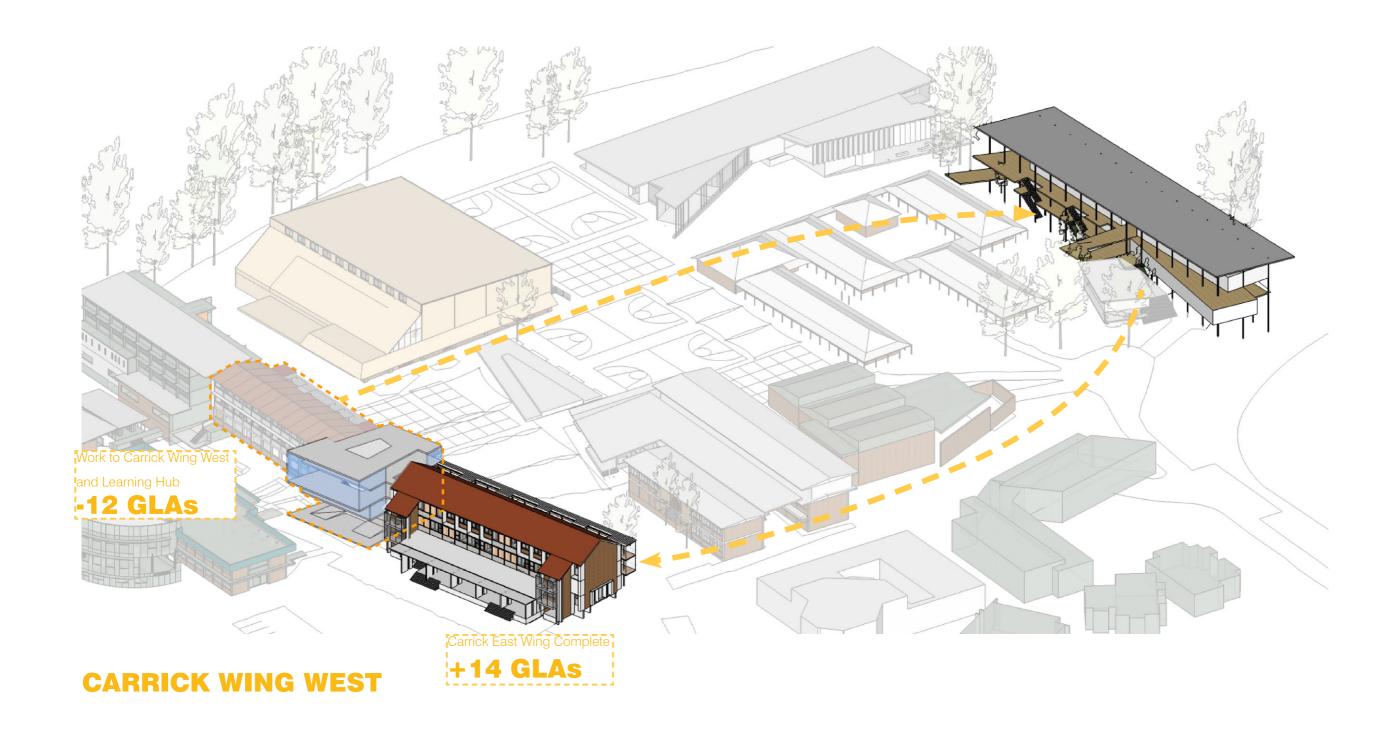
Carrick Wing East

+ Learning Hub Construction

## **COLLEGE CORE PHASES**

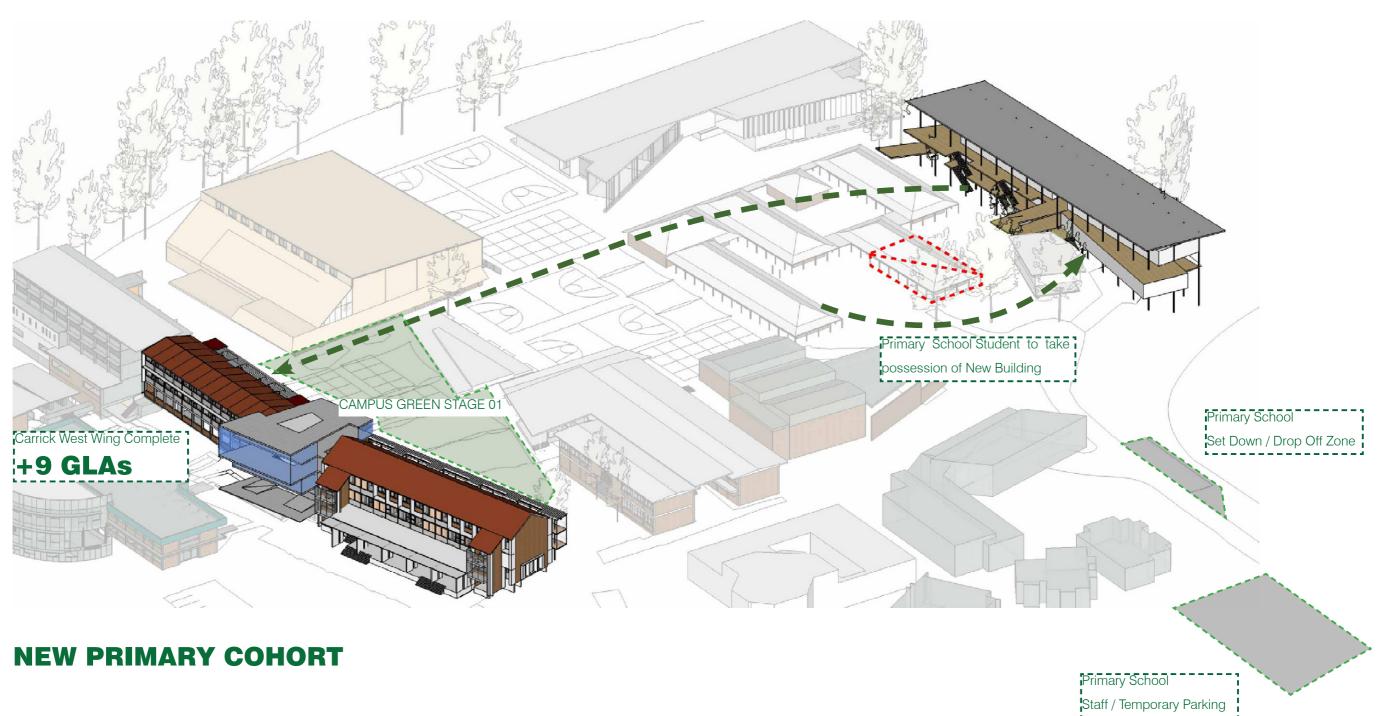
06.09.21 - APPLICATION ISSUE - A





# PHASE 1 STAGE 3 Carrick Wing East Complete Work to Carrick Wing West and Learning Hub





## PHASE 1 STAGE 4

Carrick Wing West

+ Learning Hub Complete

Primary School Students take

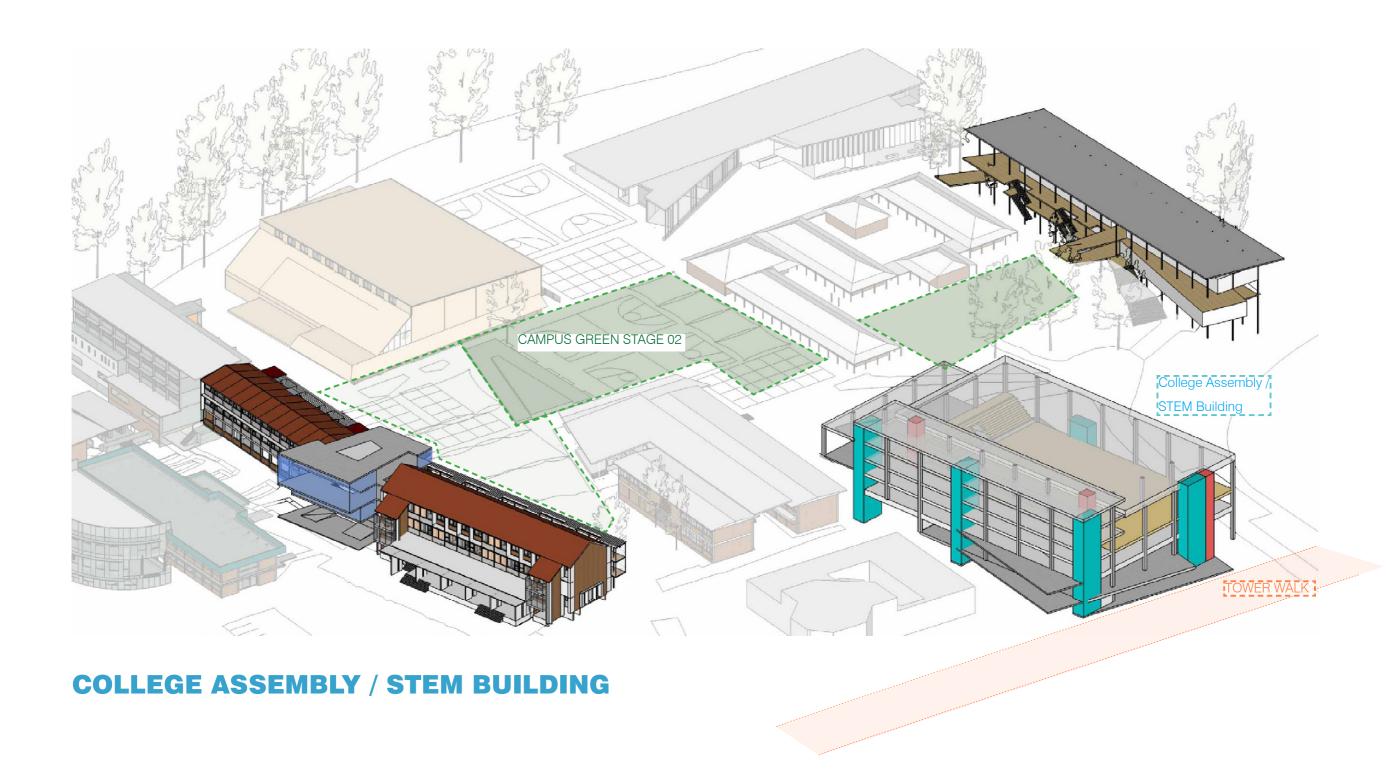
possession of New Building

Campus Green Stage 01

## **COLLEGE CORE PHASES**

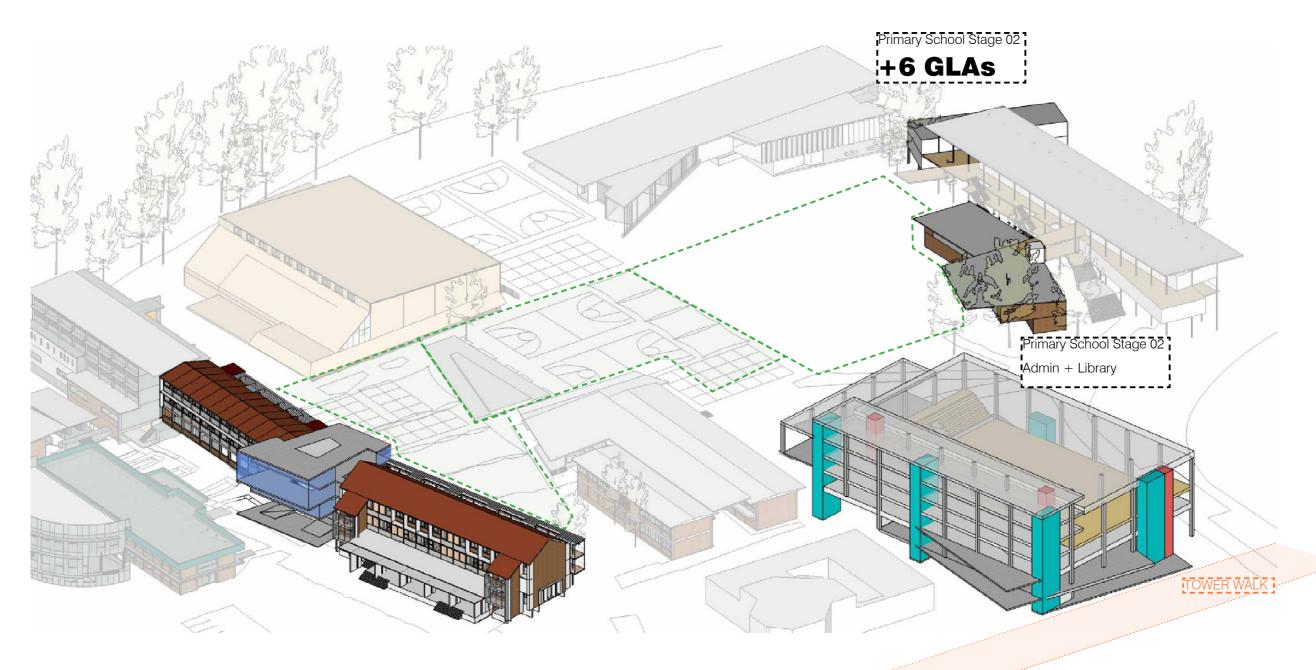
06.09.21 - APPLICATION ISSUE - A





## PHASE 2 STAGE 1

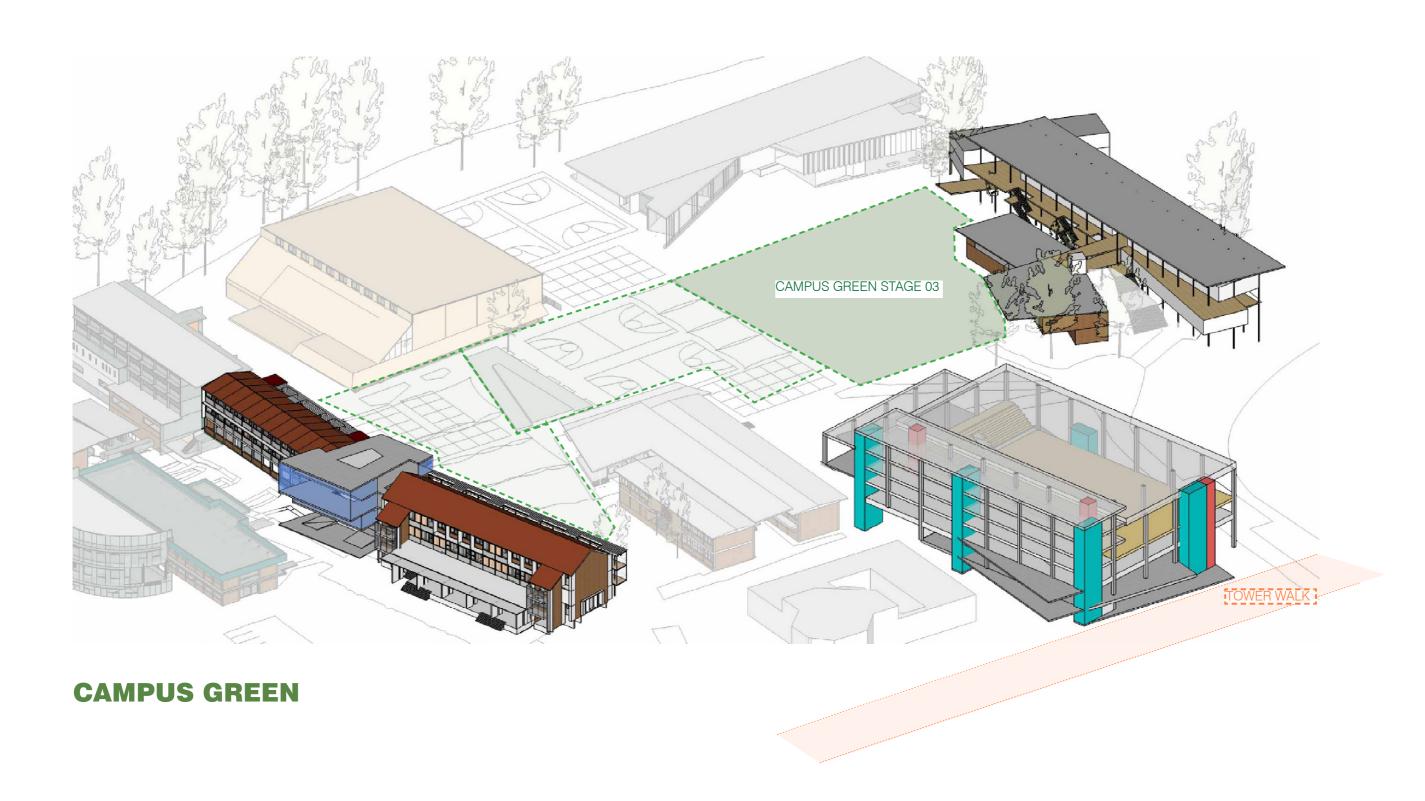
College Assembly/STEM Building
Campus Green STAGE 02



**PRIMARY SCHOOL STAGE 2** 

## PHASE 2 STAGE 2 Primary School STAGE 02 Administration + Library





PHASE 2 STAGE 3 Campus Green STAGE 03



Our reference: MPL-0221-0206

3 March 2021

Marist College Ashgrove
C/- Urbicus
110 Kennedy Terrace
PADDDINGTON QLD 4064

Sent by email: mark.k@urbicus.com.au

Dear Mr Kierpal



Department of State Development, Infrastructure, Local Government and Planning

## Pre-lodgement meeting record – proposed designation – Marist College Ashgrove

This pre-lodgement record provides a summary of relevant matters discussed at the prelodgement meeting facilitated by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP). This record is provided in good faith and provides initial advice regarding likely issues relevant to the proposed request to designate premises for the development of infrastructure (designation).

If the proposal is changed from that which was provided in the supporting information, you may wish to seek further or amended pre-lodgment advice from DSDILGP.

#### **Meeting details**

Meeting date: 26 February 2021

Attendees: • Caitlin Pozzi and Paul Beutel (the department)

Mark Kierpal (Urbicus)

• Paul Hotston (Phorm Architecture)

#### Site details

Street address: 142 Frasers Road, Ashgrove QLD 4060

Real property description: Lot 364 on SP272699

Local government area: Brisbane City Council (the council)

Existing use: Marist College Ashgrove

Relevant site history: No known outstanding obligations exist under approvals

#### **Proposed infrastructure details**

Type of infrastructure:

Item 6: educational facilities

Infrastructure description:

Marist College Ashgrove

State interests relevant to the assessment:

- Biodiversity MSES Wildlife habitat (endangered or vulnerable, special least concern animal, koala habitat areas – core and koala habitat areas – locally refined)
   – MSES – Regulated vegetation – category B and essential habitat)
- Water Quality Climatic regions stormwater management design objectives
- Natural hazards Flood hazard area Local Government flood mapping area and Bushfire prone area.
- Strategic Airports and Aviation facilities Obstacle limitation surface area and obstacle limitation surface contours

## **Supporting information**

Plan / Report title	Author	Ref no.	Version / date
Pre-lodgement Meeting Request	Urbicus	URB20-039	18 February 2021
182 Frasers Road, Ashgrove (Marist College Ashgrove)			

### Pre-lodgement advice

11010	Fre-lougement advice		
Item	Advice		
Infrastructure entity overview of proposal			
1.	The MID proposal will see the demolition of the existing primary school, tuckshop and other buildings on site, the refurbishment of the Carrick Wing (Senior Classrooms), music room, staff building, Champagnat Centre, Dining Complex and Bralexis Turton Science Centre and construction of a new Library, primary school buildings, sporting pavilion and extensions to existing buildings onsite.  The MID will result in a 10% increase in the primary school student numbers by 180 students. Existing vehicular entry/ exits from Frasers Road, Moola Road and Glenlyon Drive will be maintained by the proposal.  Bushfire clearing will be undertaken by the Department of Defence on the		
	adjoining Enoggera Barracks land.		
Infrastructure type			
2.	The proposed works would be consistent with infrastructure Item 6: educational facilities (Schedule 5 – Planning Regulation). Any proposal for the college on the site under a MID would be subject to obtaining endorsement to lodge a MID proposal, assessment of the proposal by DSDILGP, and a decision by the Planning Minister to make a MID.		

#### Servicing

3. The MID proposal should demonstrate that the site has adequate service connections to support the proposed development.

The MID proposal should be supported by an Engineering services report that confirms the adequacy of existing infrastructure and any upgrades or new services that may be required to be connected to support the proposed development.

#### **Amenity**

4. The land adjoining the part of the site where the BR Cyprian sporting pavilion is located is zoned as Low Density Residential.

The MID proposal should be supported by an acoustic assessment (including identified hours of operation) for the BR Cyprian sporting pavilion that demonstrates that the amenity impacts of the proposal on adjoining properties can be adequately mitigated.

#### Stormwater management

5. The MID proposal should be supported by a stormwater management plan that demonstrates a lawful point of discharge, no net worsening to adjoining and downstream properties and compliance with the SPP water quality benchmarks.

### **Biodiversity**

6. Part of the site is mapped as containing Matters of State Environmental Significance (MSES) - Wildlife habitat (endangered or vulnerable, special least concern animal, koala habitat areas – core and koala habitat areas – locally refined) – MSES – Regulated vegetation – category B and essential habitat). If impacts to the MSES are proposed, including clearing resulting from bushfire mitigation measures, the MID proposal should be supported by an Ecological Assessment that assesses the impacts to MSES and provides recommendations to minimise and mitigate the impacts.

#### **Flooding**

- 7. The site is shown on state interest mapping for Natural hazards, risk and resilience as:
  - Flood hazard area Local government flood mapping area

Brisbane City Council mapping shows that part of the site is impacted by flooding. Given the location of works and proximity to flooding onsite, a flood assessment is not required. Flooding should be addressed in the MID proposal and include details of how flood free access is obtained onsite. In addition, the MID proposal should demonstrate that the proposed development will not result in worsening of flood impacts upstream of the school site.

#### **Bushfire**

8. The site is mapped as containing Bushfire prone area - Potential Impact Buffer. A bushfire management plan should be prepared that includes a bushfire hazard assessment, an analysis of site constraints and environmental values, specific risk factors associated with the development and recommended bushfire protection and mitigation measures.

#### **Traffic**

9. The proposal involves additional traffic on the local road network.

The MID proposal should be supported by a Traffic Impact Assessment (TIA) that demonstrates any traffic impacts to the local road network resulting from the proposal are adequately mitigated including identifying any traffic management measures and road upgrades that may be required. The TIA should factor the ultimate planned student population on site.

#### Recommended technical reporting

- 10. It is recommended that the entity consider the following matters when preparing the infrastructure designation request:
  - Architectural plans including proposed elevations
  - Engineering services report
  - Ecological assessment (if necessary)
  - Acoustic assessment
  - Bushfire hazard assessment
  - Stormwater management plan
  - Traffic impact assessment.

#### **General information**

#### Preliminary stakeholder engagement requirements

Preliminary stakeholder engagement should include, but not be limited to, consultation with the council, Native Title and/or traditional owners for the area, letters to local, state and federal members and a letter box drop to the adjoining and surrounding properties identified on the preliminary stakeholder engagement plan below (as a minimum). Any preliminary stakeholder engagement material should describe and illustrate the proposal and provide 10 business days for comment. Please provide draft material to DSDILGP for review prior to commencing preliminary stakeholder engagement activities.

#### Endorsement to lodge a MID proposal

Endorsement to lodge a MID proposal can be sought following completion of preliminary stakeholder engagement activities. When seeking endorsement please provide the information contained within Attachment 3.1 of the MID Operational Guidance.

#### MID proposal

Should the proposal be endorsed, to apply for the designation, submit a MID proposal via the <u>online portal</u> that includes/addresses:

- the required material for making a MID specified in Schedule 3 of the <u>Minister's</u>
   Guidelines and Rules
- the matters raised in these pre-lodgement minutes.

#### Formal consultation stage

Formal consultation will include a 20 business day public consultation period which is to include as a minimum: sign/s on the land, a notice in the paper and letters to surrounding landowners, elected representatives and Native Title and/or Aboriginal or Torres Strait Islander party/parties for the area. Requirements for the formal consultation stage will be determined following endorsement to lodge a MID proposal.

If you require any further information, please contact Caitlin Pozzi, Senior Planner on 3452 6806 or caitlin.pozzi@dsdmip.qld.gov.au who will be pleased to assist.

Yours sincerely

Paul Beutel MANAGER

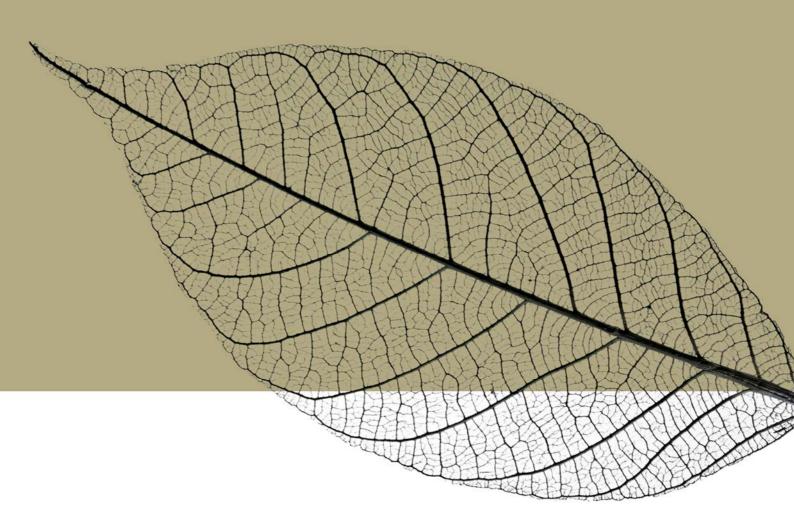
# Preliminary stakeholder engagement plan



Properties to consult

Site



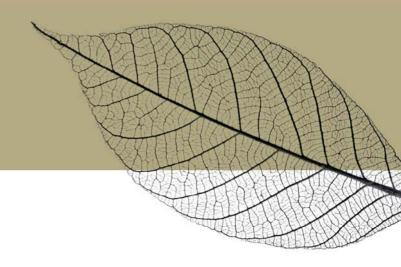


TRAFFIC ENGINEERING ASSESSMENT REPORT

PROPOSED SCHOOL EXPANSION MASTER PLAN

MARIST COLLEGE, 142 FRASERS ROAD, ASHGROVE





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#### **APPENDICES**

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### **DOCUMENT CONTROL**

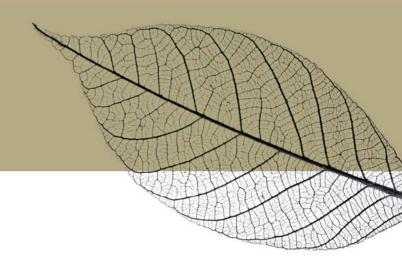
25 August 2021

Beth Meehan

Traffic Engineer

BE(Civil)(Hons), RPEQ #8373, FAITPM





## 1 Introduction

## 1.1 Purpose of this Report

This report provides an assessment of traffic engineering elements of a proposed Master Plan, which guides future growth of Marist College at 142 Frasers Road, Ashgrove. Specifically, the expansion is primarily for increasing the enrolment for Year 5 and Year 6.

This Application is to be lodged under the Ministerial Infrastructure Designation (MID) process.

In preparing this report, reference has been made to:

- Brisbane City Council's (BCC's) Planning Scheme.
- Plans of the proposed Master Plan prepared by Phorm Architects, with a copy provided at Appendix A to this report.
- Traffic (vehicle, pedestrian, bicycle) counts undertaken by Matrix on Wednesday 19 May 2021.
- An inspection of the site and its surrounds.
- Further review of the site utilising NearMap aerial and street view photography.

# 1.2 Background and Site Context

Approval is sought for expansion of the existing Marist College located at 142 Frasers Road, Ashgrove. The campus location is shown on Figure 1.1.

The current site operations, Year 2021, include the following components:

Primary School (Yr 5 & 6): Approval for 280 students (270 enrolled).
 Secondary School: Approval for 1,420 students (1,382 enrolled).

School staff: 239 staff.

The school currently primarily gains vehicle access to Moola Road, O'Connell Place and Glenlyon Drive, with access including:

Moola Road: Left-in only (Figure 1.2).
 O'Connell Place: Full movements (Figure 1.3).

• Glenlyon Road: Entry / Exit over single lane bridge, gated access past pool (Figure 1.4).

The formal pick-up / set-down operations for the school are undertaken on the southern side of the internal road, between Moola Road and the first internal roundabout (Figure 1.2).

There is an external vehicle pick-up / set-down zone in Grevillia Road, adjacent to the park.



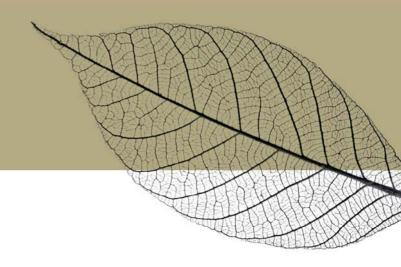


Figure 1.1: Site Location (Nearmap: Saturday 15 May 2021)





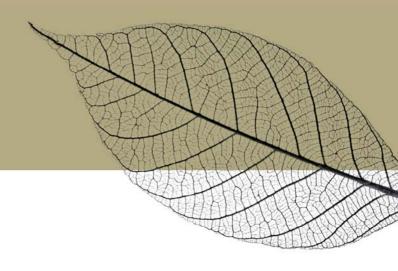


Figure 1.2: Moola Road Access (NearMap: Sunday 29 November 2020)



Figure 1.3: O'Connell Drive Access





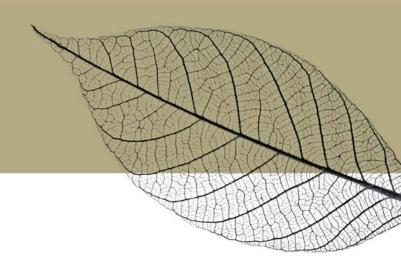


Figure 1.4: Glenlyon Drive Access (NearMap: Sunday 29 November 2020)



For pedestrian / cyclist connectivity to the school, the following are available:

- A separated pedestrian / cycle link next to the vehicle access to Glenlyon Drive.
- Pedestrian path to Moola Road adjacent to the vehicle entry.
- Pedestrian path to O'Connell Place adjacent to the vehicle entry.

The Glenlyon Drive access connects to the Enoggera Creek Bikeway, pedestrian / cycle path.

Bus access to the school includes:

- A private bus service which completes drop-off / pick-up within the school grounds.
- Public bus route 372, with a stop within the school ground.
- Public bus route 372 has stops in Grevillia Road, with some students accessing the service here.

Key roads adjoining and providing access to the site are described below.

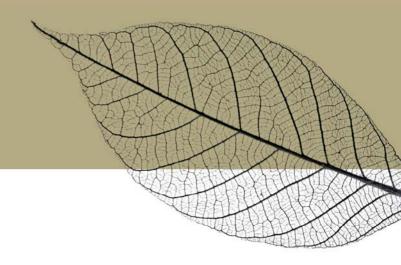
**Moola Road** is classified in Council's road hierarchy as a Neighbourhood Road (Minor Road). It is configured with a two-way, two-lane undivided carriageway, with pedestrian paths on both sides.

Queuing currently occurs on Moola Road, with this queue extending from within the school grounds. This creates issues for through traffic, as there are no turn lanes on Moola Road.

Parking is permitted on both sides of the roadway, with no time restriction. There is a central median in Moola Road at the school access, which physically restricts movements to left-in. There is also a 'No U-Turn' sign on this median.

**O'Connell Place** is unclassified in Council's road hierarchy, providing connection to a private estate and the school only. There is a pedestrian path on the southern side of the roadway, connecting to the school.



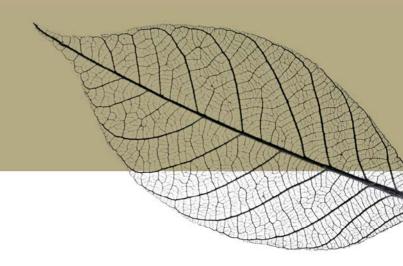


Glenlyon Drive, north of Grevillia Road, is a Neighbourhood Road (Minor Road), with pedestrian paths on both sides of the roadway. This changes to a Suburban Road (Major Road) south of Grevillia Road.

Grevillia Drive, east of Glenlyon Road, is a Suburban Road (Major Road).

Acacia Drive connects to Glenlyon Drive at the school's bridge entry. There are no formal pedestrian facilities in Acacia Drive, with the road space being a Bicycle Awareness Zone as part of the Principal Bicycle Network.





# 2 School Planning

Marist College is currently planning for expansion of their operations, primarily around the increase of the Year 5 and Year 6 cohorts. A summary of the existing enrolments, current capacity and proposed capacity is provided in Table 2.1.

Table 2.1: Summary of Existing and Proposed Operations

Use	Existing Enrolment	Current Capacity	Proposed Capacity
Primary School	270	280	450
Secondary School	1,382	1,420	1,420
Staff	239	239	249

The additions under the proposed Master Plan between the current capacity and the ultimate Master Planned community, are summarised in Table 2.2.

Table 2.2: Comparative Increase in Student and Staff Projections

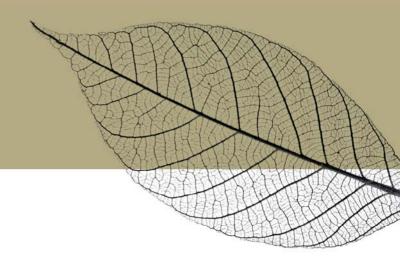
Use	Increase for Car Parking (Ultimate vs. Current Enrolments)	Increase for Traffic (Ultimate vs. Capacity)
Primary	180	170
Years 7 - 11	12	5
Year 12	20	-5
Staff	10	10

To support increases in the on-site population, the following infrastructure works are proposed:

- Addition of 26 car parks (CP10), to the west of the bus stops.
- Addition of 3 car parking (CP11), adjacent to the Primary School buildings.
- Creation of a new pick-up / set-down area, 6 bays, for use by the Primary School.
- Addition of 20 bicycle parking adjacent to the pool (BP01).
- Addition of 15 bicycle parking spaces in the Primary School (BP02).

These works are focussed on the Primary School, as this is where additional student numbers are proposed.



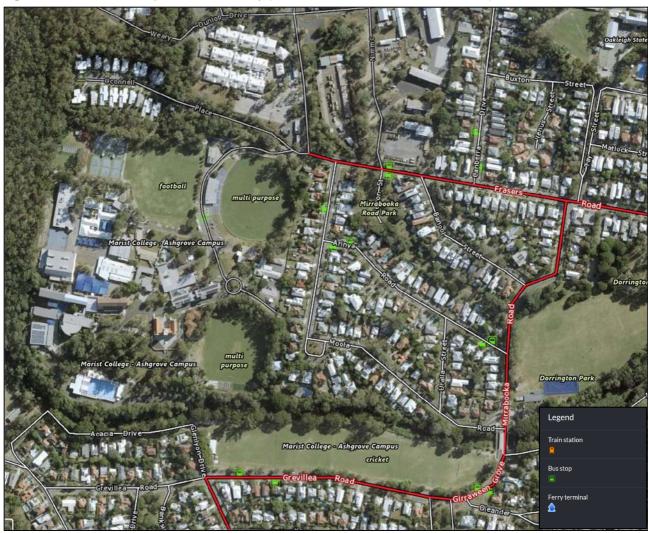


# **Public and Active Transport**

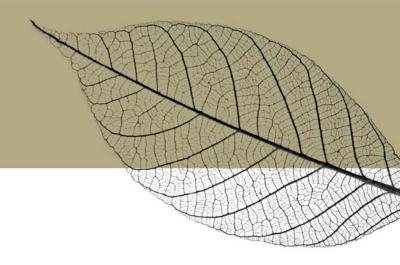
A review has been undertaken of accessibility to Marist College by public and active transport, with Figure 3.1 and Figure 3.2 graphically showing existing accessibility.

Identified public transport stops, as shown in Figure 3.1. There is also a charter service which operates for the school, which completes pick-up / set-down on the central spine road within the school.

Figure 3.1: Public Transport Accessibility (Base File from Queensland Globe)







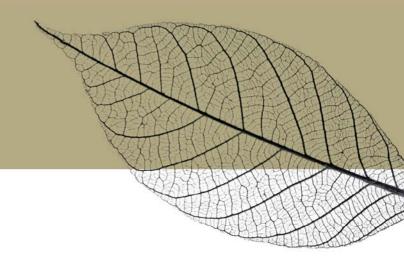
The school is well connected to active transport.

There is a listed Principal Bicycle Network, the Enoggera Creek Bikeway, connecting to the school at Glenlyon Drive (see Figure 3.2). Further to which, there is a Council Local Cycle along Grevillia Road and part of Frasers Road.

Figure 3.2 Active Transport (Source Queensland Globe)







# 4 End of Trip Requirements

## 4.1 Car Parking Assessment

## **Existing Car Parking**

There is various car parking provided throughout the site. The existing car parking will not be reduced as part of the proposed works.

## **Council Requirements**

Additional parking will be provided to accommodate the additional staff and student numbers.

BCC's Planning Scheme lists car parking rates for various uses within their *Transport, Access, Parking and Servicing Policy* (TAPS Policy). The relevant car parking requirement for a School use are:

- 1.0 space / staff; plus
- 0.1 spaces / staff, for their visitors.

Application of Council's car parking requirement rates to the additional Primary School capacity proposed under the Master Plan results in a car parking requirement for an additional **11 spaces**.

# Pick-up/Drop-Off Parking

Whilst there is no specific pick-up / set-down requirement in the TAPS Policy, it is proposed to include an additional pick-up / set-down area for use of the Primary School. In this way, the proposed Master Plan is expected to improve the school's current pick-up / set-down arrangements by:

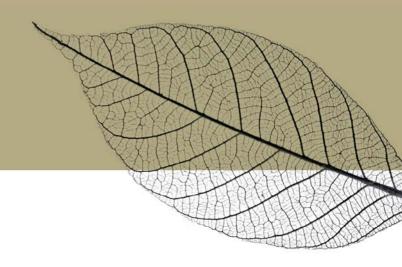
- Reducing the demand on the existing facility accessed from Moola Road, such that this facility will
  only be utilised by students in Year 7 Year 12. This represents a reduction of some 270 students
  who currently use this facility.
- Adding a new pick-up / set-down operation in the Primary School precinct. This will be accessed
  from the north, specifically O'Connell Place, with vehicles turning right from the internal road. This
  will separate the operations as much as possible from the Moola Road facility. This will service the
  forecast 450 students within the Primary School.

# **Summary**

To summarise the above in relation to car parking, 11 car parking spaces for staff and their visitors are required under the TAPS Policy under the Master Plan.

As the new Primary School collection area is proposed for the whole of the Primary School operations, this is recommended to be designed to accommodate six (6) vehicles loading.



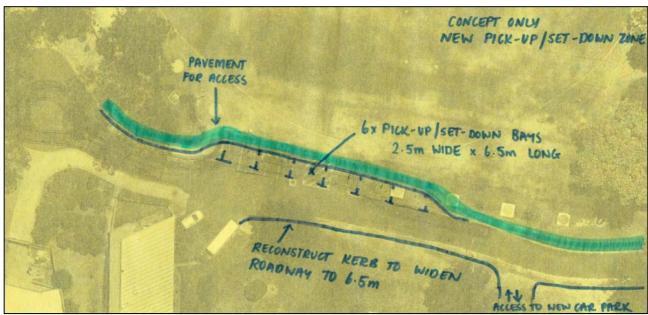


## 4.2 Suitability of Car Parking Provision

A concept design for the new pick-up / set-down facility for the Primary School is shown in Figure 4.1.

The new car parking areas, CP10 and CP11, have a total of 29 car parking spaces. This exceeds the requirements of Brisbane City Council for the additional staff numbers within the site (11 spaces required).

Figure 4.1: Pick-Up / Set-Down Design for Primary School



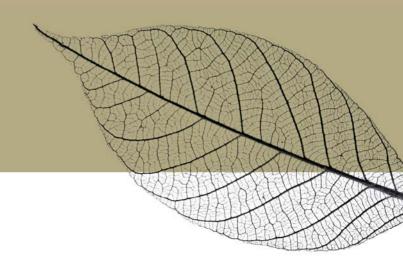
## 4.3 Pedestrian Facilities

A footpath is proposed along the northern side of the new pick-up/set-down facility, connecting the Primary School both to this facility, and further afield to the bus stops.

# 4.4 Bus Parking

The bus facilities, which accommodate existing public and charter services, will remain unchanged.





# 4.5 Bicycle End of Trip Facilities

BCC outlines in the TAPS Policy their requirements for bicycle end-of-trip facilities for various uses. These requirements are:

School Students: 1 space / 5 pupils (Year 5 or above).

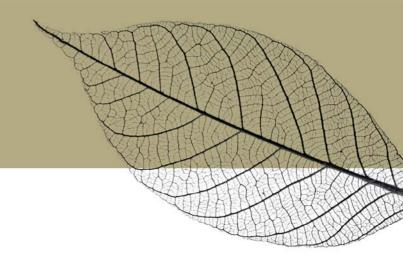
School Staff: 1 space / 50 staff.

Application of the above bicycle parking rates to the <u>additional</u> enrolment capacity under the Master Plan results in a requirement for the following <u>additional</u> bicycle parking facilities.

School Students: 34 spaces.
School Staff: 1 space.
Total: 35 spaces.

The Master Plan includes the provision of additional 35 bicycle parking spaces at BP01 and BP02, as required.





# 5 Assessment of Site Changes: Concept Only

The following design principles have been included in the design of the Master Plan:

- 1. Provision of a new Primary School pick-up / set-down area.
- 2. Reducing demand for the existing pick-up / set-down area, allocating to the Secondary School only.
- 3. Provision of new car parking (CP10 and CP11), near the Primary School.
- 4. Additional bicycle parking (BP01 and BP02).

The removal of 270 students from the existing Moola Road pick-up / set-down facility will reduce the queuing currently experienced at this location.

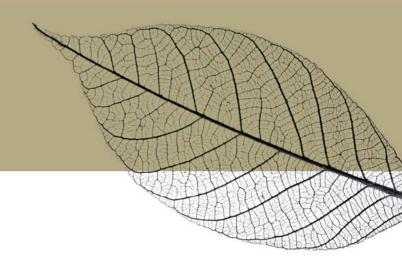
Due to the nature of current planning, this review has been provided at a conceptual level only. Detailed review of design elements will be undertaken prior to construction of each element.

To manage traffic flows around the school and minimise queuing, it is proposed that:

- The Primary School pick-up / set-down will be accessed from the north (O'Connell Place).
- The Secondary School pick-up / set-down will be accessed from Moola Road.

The access to the pick-up / set-down facilities will be somewhat intuitive, given the queuing currently experienced at Moola Road. Education of parents / carers regarding the access arrangement can, however, also be advised through school communication channels.





# 6 Traffic Impacts

## 6.1 Existing Traffic Volumes

Traffic counts and observations were undertaken at the existing school access locations on Wednesday 19 May 2021 at the following locations:

- O'Connell Place / site access.
- Moola Road / site access.
- Glenlyon Road / site access.

The surveys were undertaken from 7:00am – 9:00am and 2:30pm – 4:30pm.

The peak periods for vehicles entering and exiting the school grounds were:

- 7:30am 8:30am, and
- 3:15pm 4:15pm.

Recognising that there is additional activity happening on the adjacent road network associated with school pick-up / set-down, not entering the school, the school entry / exit movements in the peak hour included:

- AM Peak Hour: 449 in / 350 out (799 total).
- PM Peak Hour: 148 in / 232 out (380 total).

From the above data, the AM Peak Hour is the critical peak for traffic impacts, with approximately double the PM traffic volume.

#### 6.2 Traffic Generation

To calculate traffic generating rates for the school, reference has been made to the existing school traffic movements. From a review of this data, the following trip generation rates have been interpolated for school traffic:

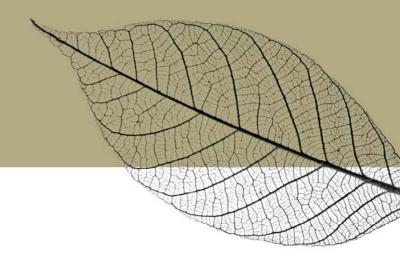
- AM Peak Hour: 0.48 trips / student / hour.
- PM Peak Hour: 0.23 trips / student / hour.

These traffic rates are higher than those recommended in the Department of Transport and Main Roads 'Road Planning and Design Manual' of 0.1 trips / student for a private school and is considered a more accurate representation of current day school travel patterns.

Application of the above rates to the forecast additional students in the ultimate scenario (170 additional, from existing capacity) anticipates the following additional traffic volumes:

- AM Peak Hour: +82 trips / hour.
- PM Peak Hour: +39 trips / hour.





Based on information collected at the school, the following distribution rates have been adopted:

AM Peak Hour: 56% in / 44% out.PM Peak Hour: 39% in / 61% out.

The anticipated trip generation by the **increased school enrolment** is therefore:

- AM Peak Hour:
  - In: +46 trips / hour.
  - Out: + 36 trips / hour.
- PM Peak Hour:
  - In: + 15 trips / hour.
  - Out: + 24 trips / hour.

Applying the trip generation rates to the <u>full forecast Primary School cohort</u>, which could be anticipated at the new Primary School facilities, estimates:

- AM Peak Hour:
  - In: 121 trips / hour.
  - Out: 95 trips / hour.
- PM Peak Hour:
  - In: 41 trips / hour.
  - Out: 63 trips / hour.

#### 6.3 Traffic Distribution

Due to changes to the pick-up / set-down arrangements for the Primary School, changes to existing traffic movements are anticipated. Currently the following traffic enters the School from Moola Road:

- AM Peak Hour: 322 vehicle movements.
- PM Peak Hour: 81 vehicle movements.

Entering traffic at Moola Road is expected to be <u>reduced</u> by traffic redistributing to O'Connell Place to access the new Primary School pick-up / set-down. The following reduction is anticipated:

- AM Peak Hour: -75 vehicle movements.
- PM Peak Hour: -26 vehicle movements.

The net change in traffic movements associated with the modifications to the internal operations are shown in Figure 6.1 and Figure 6.2.

25 August 2021



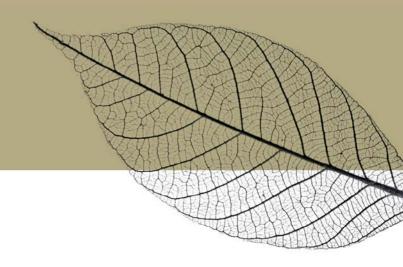
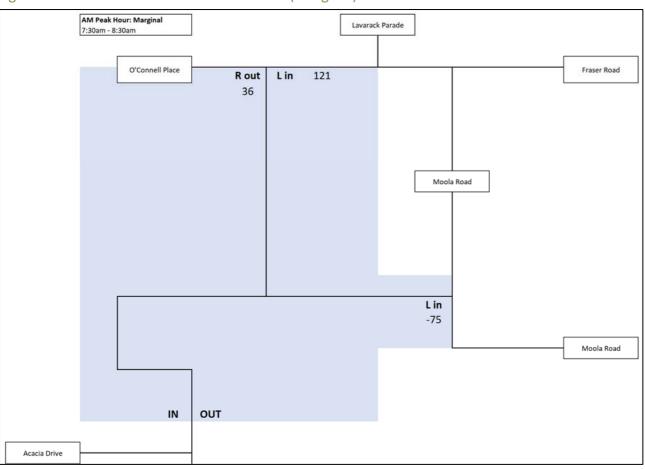


Figure 6.1: AM Peak Hour Traffic Generation (Marginal)





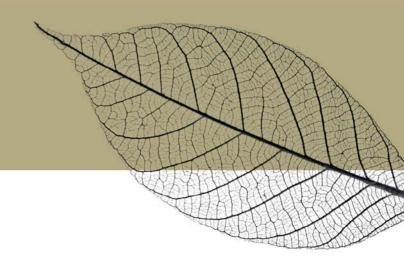
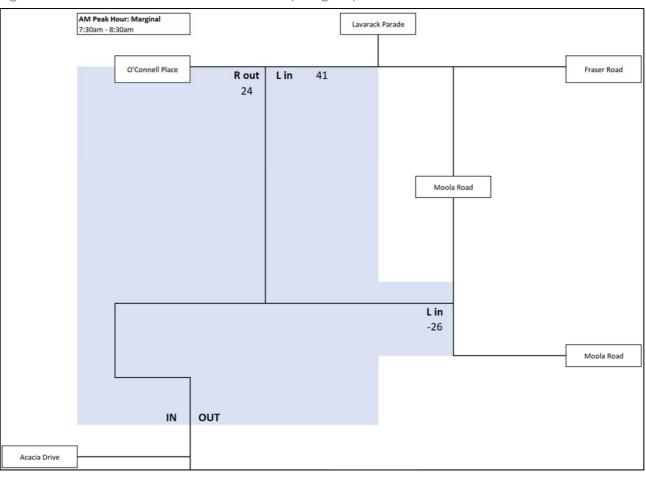
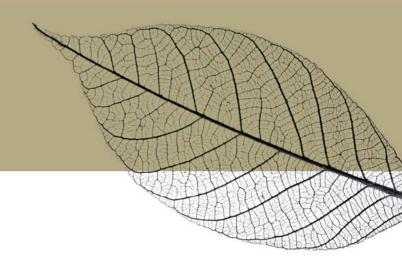


Figure 6.2: PM Peak Hour Traffic Generation (Marginal)







# **6.4** Mitigating Traffic Works

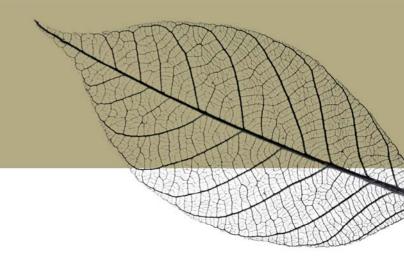
The Master Plan incorporates the mitigating works to offset the impacts of the additional capacity of enrolments:

Relocate Primary School pick-up / set-down: Reduce queuing on Moola Road.

Provide additional bicycle parking:
 Encourage active travel.

The proposal will introduce a demand for right turn movements from the internal road to the new pick-up / set-down area. If congestion occurs around this right turn, it would be possible to create a right turn lane by removing bollards to the east of the roadway. This is not included in the initial works package and should continue to be monitored.





## 7 Conclusions

In relation to **car parking**, the following are provided as part of the Master Plan:

- 6 new pick-up/set-down car parking spaces at the Primary School.
- 11 new staff car parking spaces (CP10).
- 15 car parking spaces over and above the requirement of Council's TAPS Policy (CP10 and CP11).
- 3 new PWD parking spaces (CP10 and CP11).

As part of the detailed design of all new car parking, this will be constructed to meet the requirements of the Australian Standard for Off Street Car Parking (AS/NZS2890.1-2004).

To continue to support cycling and active transport, an <u>additional 35 bicycle parking spaces</u> are proposed.

The overall development is expected to **generate the following additional traffic**, at completion and full take-up of the Master Planned development:

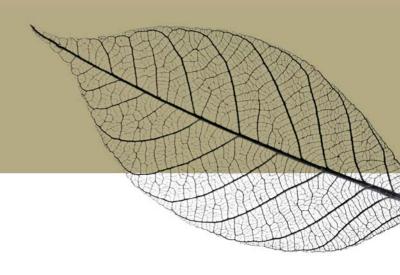
- AM Peak Hour:
  - In: +46 trips / hour.
  - Out: + 36 trips / hour.
- PM Peak Hour:
  - In: + 15 trips / hour.
  - Out: + 24 trips / hour.

There will be a redistribution of traffic associated with the relocation of all Primary School pick-up/drop-off.

The Master Plan includes the following **key infrastructure works** to off-set the impacts of the development:

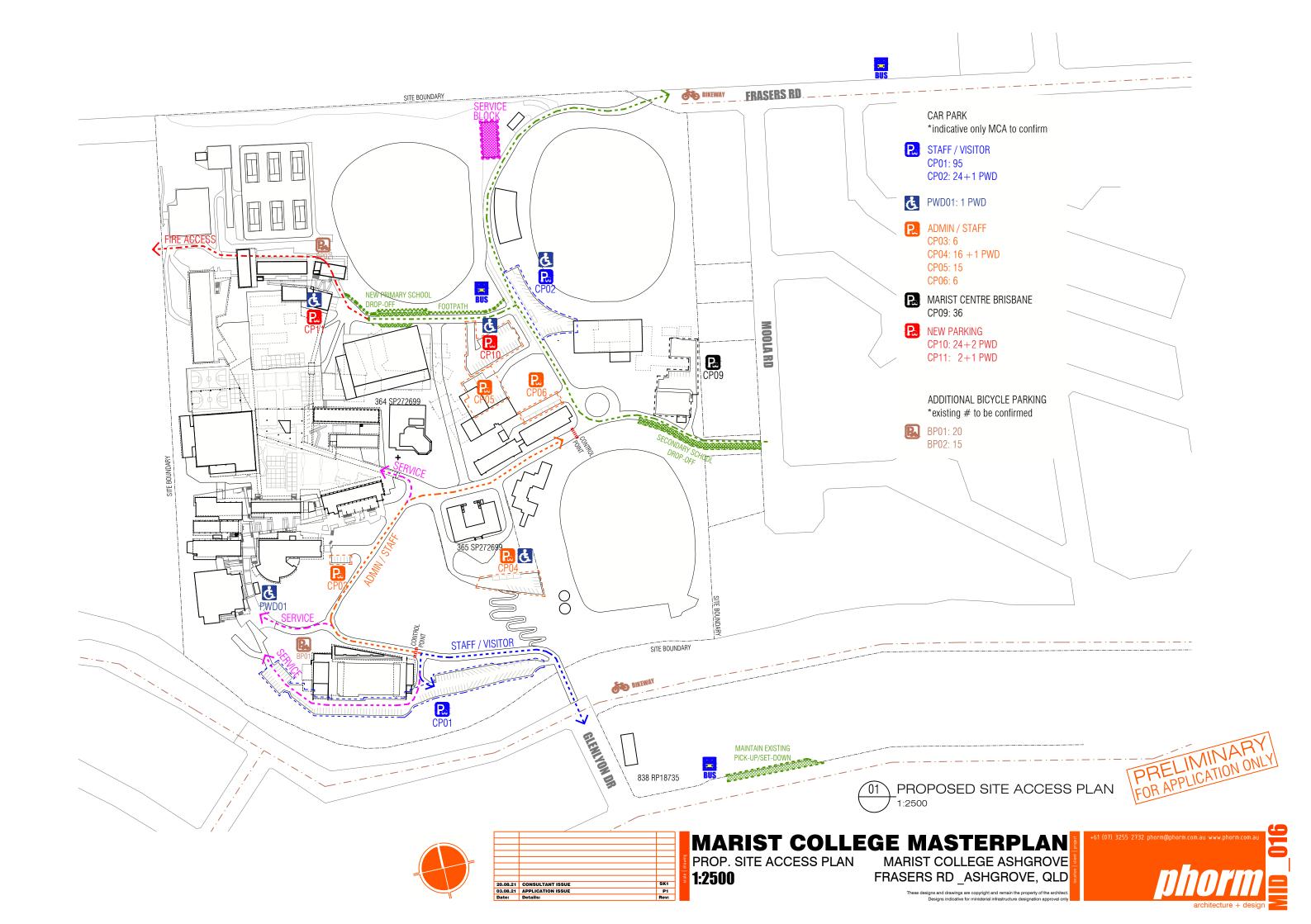
- Providing a new pick-up / set-down facility for the Primary School.
- Reducing the demand, and associated off-site queuing, in Moola Road, by relocating Primary School pick-up / set-down.
- Additional parking for 35 bicycles.
- Adding to the internal path network.

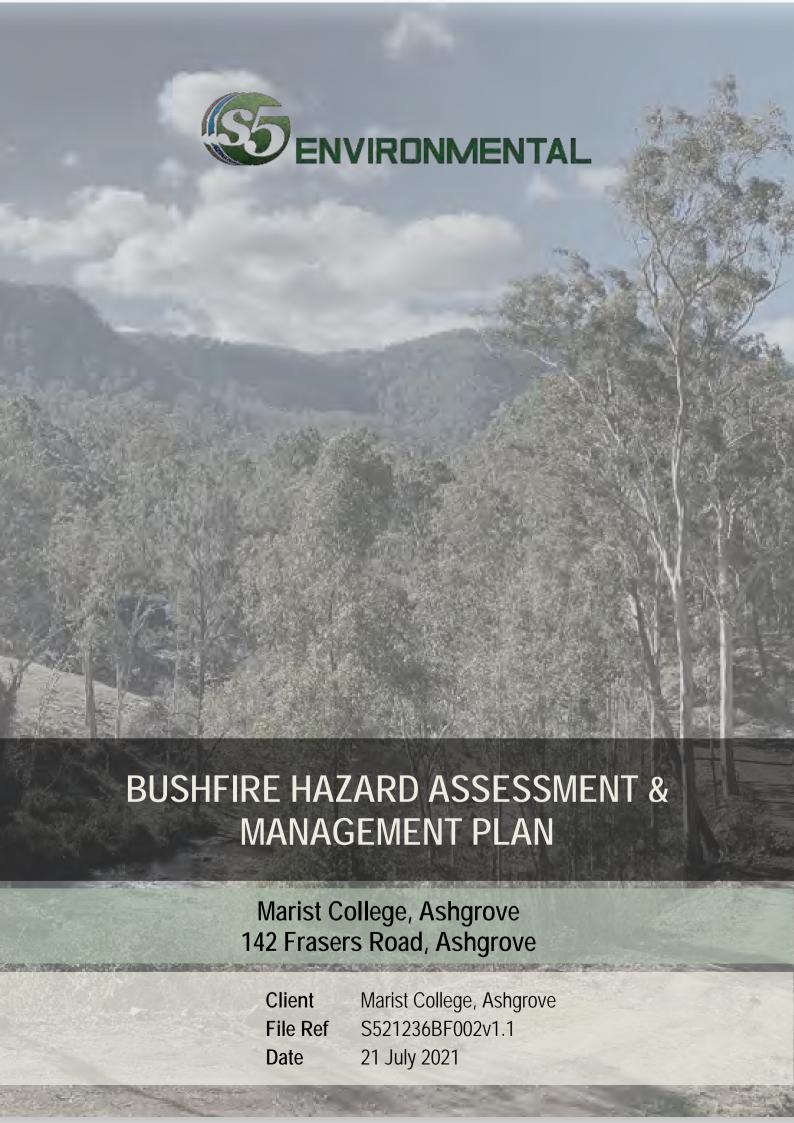




# Appendix A

Master Plan





#### **Quality Control**

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#### **Version Control**

Version	Description	Date	Author	Reviewer	Approver
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#### Disclaimer

S5 Consulting Pty Ltd trading as S5 Environmental has developed this Bushfire Hazard and Bushfire Attack Level Assessment, taking into consideration the Australian Standards (AS3959-2018) - Construction of building in bushfire-prone areas, the State Planning Policy and relevant local authority policies and guidelines. However, there can be no guarantee that following the recommendations made in this assessment can guarantee safety of property and human life.

Fire is an element of nature, and as such fire events (small or large) can have disastrous outcomes even with the best planning in place. The authors of this report and S5 Consulting Pty Ltd accept no responsibility for any harm to property or human life caused by fire or any other cause to persons utilising property or structures.

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## **ABBREVIATIONS**

AHD Australian Height Datum

AS 3959-2018 Australian Standard 3959-2018 Construction of Buildings in Bushfire Prone Areas

State Planning Policy 1/03 Mitigating the adverse Impacts of Flood, Bushfire and

BAL Bushfire Attack Level

BCC Brisbane City Council

BLE Building Envelope

BMP Bushfire Management Plan

BPZ Building Protection Zone

BRC Bushfire Resilient Communities (2019)

CFA Country Fire Authority

DES Department of Environment and Science

DNRME Department of Natural Resources, Mines and Energy

FFDI Forest Fire Danger Index

GFDI Grassland Fire Danger Index

ha Hectares

NCA National Construction Association

RE Regional Ecosystem

SEQ South East Queensland

SPP State Planning Policy, 2017

SPP 1/03 Landslide

VHC Vegetation Hazard Class

### 1.0 INTRODUCTION

S5 Environmental was commissioned by Urbicus, on behalf of their client, Marist College, Ashgrove, to conduct a Bushfire Hazard Assessment and, if required, a Bushfire Attack Level (BAL) Assessment to support an application for a Ministerial Infrastructure Designation (MID) for their proposed master-planned program of works.

The aim of this Bushfire Hazard Assessment is to undertake a site-specific "fit for purpose" assessment in accordance with the SPP Technical Guide - *Bushfire Resilient Communities*, 2019, (BRC) which, amongst other things, provides technical guidance on procedures for undertaking Bushfire Hazard Assessments, Vegetation Hazard Class Assessments, calculating hazard protection zones and preparing Bushfire Management Plans. This fit for purpose approach focuses on the actual hazard status of vegetation adjacent to the site and utilises the *New Methodology For State-Wide Mapping Of Bushfire Prone Areas In Queensland* (Leonard *et al.* 2014) and the CSIRO's *Estimating the potential bushfire hazard of vegetation patches and corridors An enhancement of Queensland's methodology for State-wide mapping of bushfire prone areas* (Leonard *et al.* 2014).

This approach in undertaking a site-specific Bushfire Hazard Assessment involved a quantitative assessment of the site including a review of the vegetation communities, fuel loads and slope. S5 Environmental Ecologists completed a detailed desktop assessment utilising recent high-resolution aerial photography, available datasets and mapping to survey existing vegetation and land features of the site and surrounding area.

Table 1. Site Description

Address	142 Frasers Road, Ashgrove		Lot 364 on SP272399	
LGA	Brisbane City Council	Site Area	16.08 ha	
Zone	Community Facilities Education Purposes (CF5)	Tenure	Freehold	
Current State	The proposed works are to be located within the existing school grounds. Some areas of the school grounds consist of manicured gardens, maintained grassy areas and a mixture of native and exotic canopy species. The site has many buildings, carparks and internationals. The school is bound by vegetation and the Enoggera Gallipoli Army Barracks to the west/north-west, and residential developments and sporting facilities to the south and east refer to Figure 1.			
Proposed Development				

- Primary School (5 Buildings)
- CLE Building
- Assembly Complex;
- Dining Complex (east of)
- BR Cyprian Pavilion

#### **Alterations**

- Music Room
- Staff Building
- Carrick Wing West
- Carrick Wing East
- Champagnat Centre
- BR Alexis Turton Science Centre
- Dining Complex
- BR Cyprian Pavilion (south of)

#### Other Infrastructure

Car Parking

Refer to Figure 2.

Potentially Hazardous vegetation is mapped on the western edge of the site.

The lot to the west, occupied by the Gallipoli Army Barracks, supports a large expanse of remnant vegetation. The majority of the vegetation is mapped as Regional Ecosystem 12.11.5 – Least Concern (described as *Corymbia citriodora subsp. variegata woodland to open forest +/- Eucalyptus siderophloia/E. crebra, E. carnea, E. acmenoides, E. propinqua on metamorphics +/- interbedded volcanics*).

## Potentially Hazardous Vegetation

To the south of the site there is a gully area, mapped as RE 12.3.7 – Of Concern (described as *Eucalyptus tereticornis, Casuarina cunninghamiana subsp. cunninghamiana +/-Melaleuca spp. fringing woodland*).

A small corridor of vegetation running along the north of the school is mapped as RE 12.11.3a – Least Concern (described as Lophostemon confertus +/- Eucalyptus microcorys, E. carnea, E. propinqua, E. major, E. siderophloia woodland. Occurs in gullies and exposed ridges of Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics), changing to RE12.3.11 at its eastern extent. RE 12.3.11 is described as Eucalyptus tereticornis +/- Eucalyptus siderophloia, Corymbia intermedia open forest on alluvial plains usually near coast.



Figure 1. Site Aerial
Source: Near Map (Dated: 21 March 2021), CRS: GDA 94 MGA Zone 56

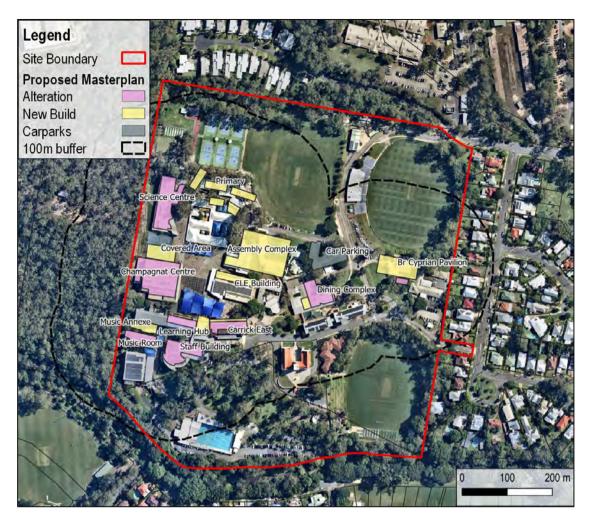


Figure 2. Proposed Works and Area of Investigation

Source: Near Map (Dated: 21 March 2021), CRS: GDA 94 MGA Zone 56

### 2.0 STATUTORY REQUIREMENTS

### 2.1 Bushfire Prone Areas

Bushfire Prone Areas are identified at both the State and Local Government Level. The State Planning Policy (SPP) Bushfire Prone Area map was developed by CSIRO to map areas with Very High, High, and Medium Potential Bushfire Intensity. The SPP also maps a 100 m Potential Impact Buffer.

The State Planning Policy (SPP) Bushfire Prone Area Map (attached in **Appendix B**), was consulted to determine the preliminary bushfire hazard ratings of the site. Under the *SPP Bushfire Prone Areas Map*, the site is mapped as High Potential Bushfire Intensity Hazard and Potential Impact Buffer, refer to Figure 3.

Whilst it is acknowledged that the Local Authority Planning Scheme does not apply to the MID process, it is important to recognise and acknowledge Local Government Planning overlays and intent. As such, it is acknowledged that the *Brisbane City Council City Plan 2014* implements the *Bushfire Hazard Overlay Code* which acts as a development constraint within the BCC locality. However, the Bushfire Hazard Overlay maps for BBC differ slightly from the SPP overlays, refer to Figure 4. Both overlays show bushfire mapping within 100 m of the proposed buildings, and consequently a further investigation of the site-specific bushfire hazard characteristics has been undertaken to determine the actual hazard of the site, in accordance with the SPP.

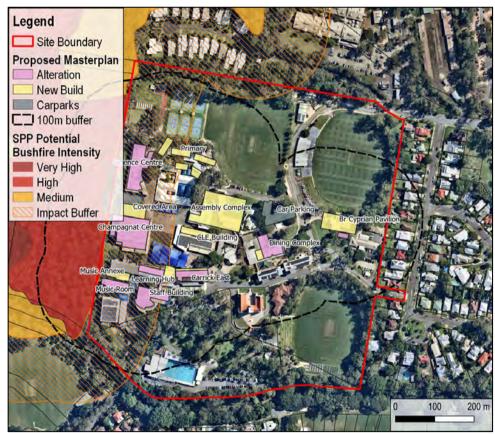


Figure 3. Extract of the SPP Bushfire Prone Areas Mapping



Figure 4. Extract of the Brisbane City Council Bushfire Hazard Overlay Mapping

# 2.2 AS3959-2018 Construction of Buildings in Bushfire Prone Areas

The BCA then triggers bushfire assessment in accordance with the *Australian Standard 3959-2018 - Construction of Buildings in Bushfire Prone Areas* for Class 1, 2, 3 and associated Class 10a buildings that are proposed to be constructed in Bushfire Prone Areas, refer to **Table 2**.

Table 2. Summary of Building Classes 1, 2, 3, and 10a

Class	Description
Class 1	Class 1a: A single dwelling being –  (i) A detached house, or  (ii) One of a group of two more attached dwellings, each being a building, separated by fire resisting wall, including a row house, terrace house, town house or villa unit  Class 1b:  (i) A boarding house, guest house, hostel or the like –  a) With a total area of all floors not exceeding 300 m² measured over the enclosing walls of the Class 1b; and  b) In which not more than 12 persons would ordinarily be resident, or  (ii) Or more single dwellings located on one allotment and used for short-term holiday accommodation
Class 2	A building containing two or more sole-occupancy units each being a separate dwelling

Class 3	A residential building, other than a building of class 1 or 2, which is a common place of long term or transient living for several unrelated persons, including –  a) A boarding house, guest house, lodging house or backpacker's accommodation; or b) A residential part of a hotel or motel; or c) A residential part of a school; d) Or accommodation for the aged, children or people with disabilities; or e) A residential part of a health-care building which accommodates members or staff; or f) A residential part of a detention centre.
Class 10a	A non-habitable building or structure –  a) A non-habitable building being a private garage, carport, shed, or the like.

Source: Modified from Building Code of Australia

The proposed development includes the renovation of several school buildings, extensions to existing buildings including dining complex, Champagnat Centre, General Learning Areas (GLA), BR Cyprian Pavilion, and additional carparking. Additional learning spaces will include an extension to the Carrick Wing, Music Room annex, Science Building, and CLE Building, with Covered Area extending from the Champagnat Centre. New buildings include the Primary School, Assembly Complex, Learning Hub between the Carrick Wings, and a new Music Annex building. Accordingly, it is considered that this development includes the construction of one class of building type only - teaching spaces/library, refer to Table 3.

Given that these are non-habitable structures and are not a Class 1-3 or 10A Buildings or structures, there is no requirement to comply with the construction requirements described in AS3959-2018, under the *Building Code of Australia*. Accordingly, a Bushfire Attack Level Assessment is not required for the proposed Master Plan works.

Table 3 Summary of Building Classes associated with Proposed Development

Proposed Building	Class	Description
Classroom	Class 9b	<ul> <li>A Class 9 building is a building of a public nature that includes one or more of the following sub-classifications:</li> <li>(1) Class 9a — a health-care building including any parts of the building set aside as laboratories, and includes a health-care building used as a residential care building.</li> <li>(2) Class 9b — an assembly building including a trade workshop or laboratory <i>in a primary or secondary school.</i></li> </ul>

Source: Modified from Building Code of Australia - Volume Two

### 3.0 METHODOLOGY

## 3.1 Potential Fire-line Intensity Calculation

The SPP Potential Bushfire Intensity classifications are based on the *New Methodology for State-Wide Mapping of Bushfire Prone Areas In Queensland* (Leonard *et al.* 2014). This new State-wide mapping methodology was developed to identify Bushfire Prone Areas in support of bushfire hazard provisions of Queensland's State Planning Policy. The new methodology scales bushfire hazard based on the Potential Fire-line Intensity (PFLI) of a severe bushfire and can be used to predict the radiation profile of areas located adjacent to potentially hazardous vegetation and an associated Potential Impact Buffer.

Accordingly, the classification of an area's Potential Fire-line Intensity (FI) is calculated as a combination of the following three metrics, using the below equation (Leonard *et al.* 2014):

- Total fuel load (W);
- The McArthur Forest Fire Danger Index (FFDI), and
- Maximum Landscape Slope (∂ in ∘)

$$FI = 0.62 W^2 FFDI \exp(0.069 \theta)$$

Equation 1

S5 Environmental have utilised data from the Queensland Fire and Emergency Services (QFES) "Catalyst" database for Fuel Load and FFDI values. Catalyst provides access to current vegetation and fire management data, mapping and analytical tools to be utilised to "prepare consistent and comparable information about who, what and where is at risk from natural disasters". The main aim of Catalyst is "to improve the integration of risk assessments and natural disaster mitigation, preparedness, response and recovery planning."

#### 4.0 BUSHFIRE HAZARD ASSESSMENT

## 4.1 Vegetation Types and Fuel Loads

In accordance with the *New Methodology for State-Wide Mapping of Bushfire Prone Areas in Queensland* (Leonard *et al.* 2014), potential fuel loads are assigned to vegetation categories (Vegetation Hazard Classes – VHC) formed by amalgamating land use and vegetation types with a moderately consistent fuel load and structure.

The Potential Fuel Load assigned to each VHC is generally representative of the higher fuel load expected for the typical vegetation types, landscape and site conditions within each VHC and approximates the *80th percentile (%) fuel load of the "long unburnt condition"* for the class (generally greater than 10 years without burning).

Using QFES Catalyst Mapping, numerous VHCs were mapped within and adjacent to the lot. An extract of the Catalyst Mapping is shown below in **Figure 5**.

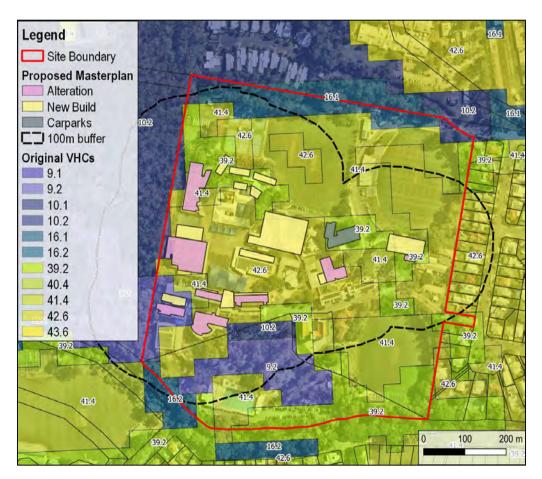


Figure 5. Extract of Vegetation Hazard Classes from Catalyst

### 4.1.1 Vegetation Assessment

To confirm and ground-truth the Catalyst VHCs mapped within and adjacent to the site, S5 Environmental Ecologists, conducted a site assessment on the 3<sup>rd</sup> of June 2021, and conducted a detailed review of aerial photography for the site. They confirmed that the Catalyst VHC mapping of the site and surrounds was generally consistent with the on-ground conditions, however with some mapping anomalies. Refer to S521036ER001 Detailed Ecological Assessment for a detailed description of the Vegetation Communities within the site.

Therefore, the VHC mapping has been modified to more accurately reflect the on-ground conditions including the vegetation to the west being representative of Open Forest rather than Woodland, and to reflect the post-development state of the site and surrounds. The modified VHCs are shown in **Figure 6**.

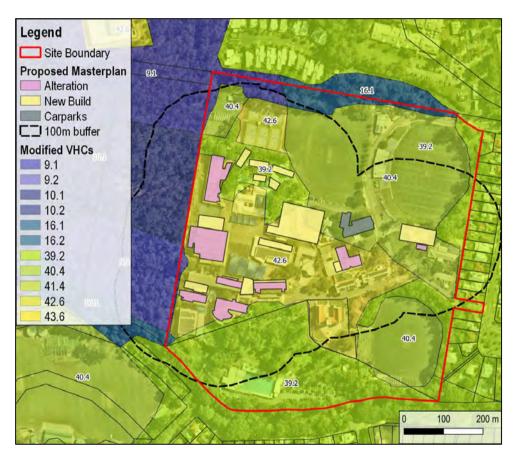


Figure 6. Ground-truthed and Post-development Vegetation Hazard Class

## 4.1.2 Modified Intensity of Small Patches and Corridors

The QFES *Bushfire Resilient Communities Technical Reference Guide* (2019) summarises research by Leonard and Opie (2017) which downgrades the intensity of small patches and corridors of potentially hazardous vegetation. The theory suggests that small patches and corridors have a reduced likelihood of ignition due to their reduced size, as well as a reduced ability to support a full fire front, ultimately resulting in a Low hazard level, refer to **Table 4**. Step three has been applied to the potentially hazardous vegetation in the vicinity of the proposed development, with the new downgraded VHCs shown in **Figure 7**. It should be

noted that this downgrade coincides with the Bushfire Prone Areas Mapped within and around the site under the SPP Bushfire Prone Area Map, refer to Figure 3.

Table 4. Steps to downgrade bushfire intensity

Step	Description
1	Remove small isolated patches (<1 ha) that are further than 100 m from any other continuous fuel patch greater than 2 ha.
2	Downgrade intensity of small patches (<3 ha) that are located further than 100 m from any other continuous fuel patch greater than 2 ha.
3	Remove narrow corridors less than 50 m in width.
4	Remove isolated small fragments (<0.5 ha)

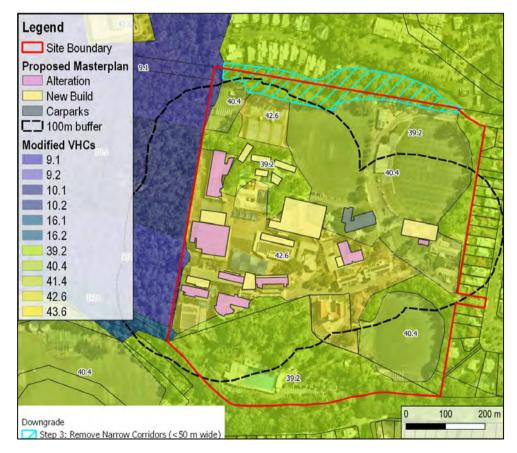


Figure 7. VHC areas to be downgraded due to narrow corridors

#### 4.1.3 Fuel-loads

**Table 5** below, summarises the associated fuel-loads of the final VHCs after they have been ground-truthed.

Table 5. Summary of Vegetation Communities and their respective VHC and Fuel Loads

VHC	VHC Description	Potential Fuel Load * (t/ha)		
VIIC	VIIC Description	Surface**	Total***	
9.1	Moist to dry eucalypt open forest on coastal lowlands and ranges	21	31	
10.1	Spotted Gum dominated open forests	19.3	29.3	
16.1	Eucalyptus dominated open forest on drainage lines and alluvial plains	13.8	23.8	
39.2	Low to moderate tree cover in built-up areas	5	8	
40.4	Continuous low grass or tree cover	4.5	5	
42.6	Nil to very low vegetation cover	2	2	

<sup>\*</sup>CSIRO A methodology for State-wide mapping of annual fuel load and bushfire hazard in Queensland Glenn Newnham, Kimberley Opie, Justin Leonard CSIRO Land and Water, 2017.

## 4.2 Slope Assessment

The slope of vegetated land over which a bushfire passes has a strong influence on both the intensity and rate of spread of the bushfire. From a Bushfire Hazard Assessment perspective, the relevant slopes to consider are the slopes of land beneath areas of potentially hazardous vegetation that would be retained within or adjacent to the proposed development. Also relevant, is whether or not the vegetated land is situated upslope or downslope of the proposed development. As fire travels upslope, there is a significant reduction in risk and fire-line intensity for sites that sit below the vegetation.

Slope has been calculated in GIS from a 25 m resolution digital elevation model (DEM). The maximum slope (in degrees) was calculated from the central point in a pixel in a group of 9 x 9 cells to the eight adjoining cells in that group, refer to **Figure 6**, below.

<sup>\*\* &#</sup>x27;Surface' total fuel load is the additional of both Surface and Near-Surface values as outlined in Bushfire Resilient Communities - Technical Reference Guide for the State Planning Policy State Interest 'Natural Hazards, Risk and Resilience - Bushfire'.

<sup>\*\*\* 10</sup> Tonnes/ha has been added to the surface fuel Load in accordance with the BCC Technical Guideline. Has not been applied to Discontinuous Fuel Loads as canopy not present or canopy engagement is not expected.

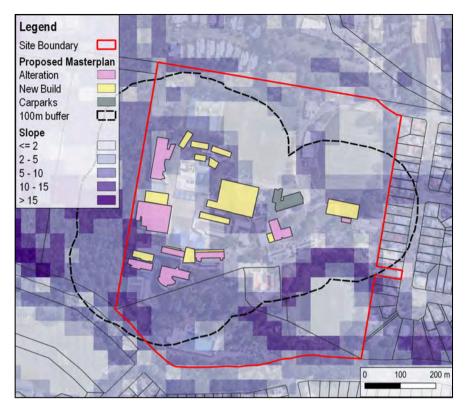


Figure 6. Slope (Degrees) of the Site

### 4.3 Forest Fire Danger Index

In accordance with the Australian Standard (AS) 3959-2018, *Construction of buildings in bushfire prone* areas, the Fire Danger Index (FDI) indicates the chance of a fire starting, its intensity, rate of spread and the difficultly of its suppressions, according to a number of combinations of relative humidity, air temperature, wind speed as well as long- and short-term drought effects. The QFES Catalyst Mapping indicates that the site-specific Forest Fire Danger Index (FFDI) for the subject site is **56**.

# 4.4 Post-development Potential Bushfire (Fire-line) Intensity

A bushfire hazard rating has been derived for classifiable vegetation in accordance with the State-wide mapping methodology for bushfire prone areas in Queensland, described in **Section 3.1** (Leonard *et al.* 2014). Using *Equation 1*, calculations have been undertaken using GIS Raster Calculator, with the rasterised inputs for Fuel Load (**Figure 6**), Slope (**Figure 6**) and FFDI. **Figure 7**, below summarises the output of Bushfire Hazard Calculations at 25 m resolution. It should be noted the PFLI is a general guide to hazard due to the high spatial resolution. Where a BAL assessment is required, a higher resolution assessment based on the on-ground edges of hazardous vegetation is provided.

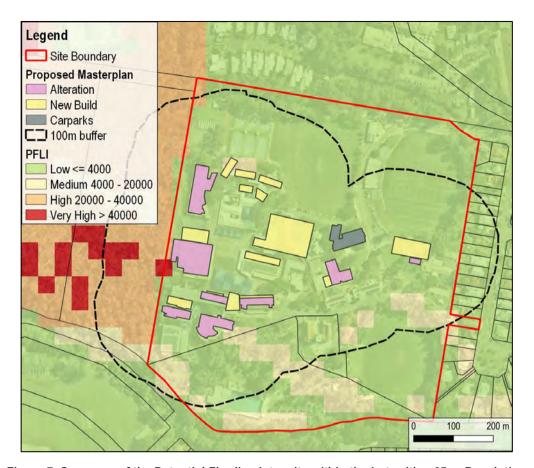


Figure 7. Summary of the Potential Fire-line Intensity within the Lot, with a 25 m Resolution
In accordance with the *New State-Wide Mapping Methodology for Bushfire Prone Areas in Queensland* (Leonard et al. 2014), Potential Bushfire Intensity Classes are described as

- Very high (potential intensity) > 40,000+kW/m;
- High (potential intensity) 20,000 40,000kW/m;
- Medium (potential intensity) 4,000 20,000kW/m; and
- Low (potential intensity) < 4,000kW/m.

Accordingly, the school campus and proposed development footprints are impacted by a combination of Low, Medium, High, and Very High potential bushfire intensity. Accordingly, a Bushfire Management Plan has been developed for the site to minimise and mitigate Bushfire risk, refer to **Section 5**.

#### 5.0 BUSHFIRE MANAGEMENT PLAN

This Bushfire Management Plan (BMP) identifies management measures that must be implemented to ensure that the risk of bushfire attack is reduced to an acceptable level. It is first important to understand the processes that influence bushfire behaviour (Section 5.1), and the sources of damage that threatened people and property (Section 5.2).

#### 5.1 Bushfire Behaviour

Understanding bushfire behaviour is imperative when planning new development. There are three main factors which influence fire behaviour as follows:

#### a) Topography

Slope influences the speed and intensity of a fire. Fire is known to burn faster uphill as flames and radiant heat preheat the vegetation ahead of the fire, drying it out and making it increasingly flammable. As a rule of thumb, for every 10 degrees slope, fire doubles in speed. Refer to **Plate 1**, below.

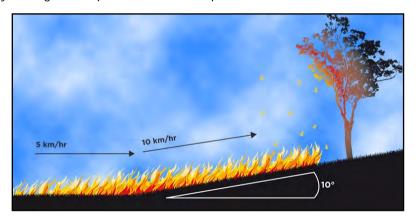


Plate 1. Effects of Topography on Bushfire

Source: Country Fire Authority

#### b) Weather Conditions

Bushfire weather conditions are fundamentally defined by temperature, humidity, wind, atmospheric conditions and past rainfall. For example, summer weather conditions increase the flammability of vegetation. Wind influences the speed and direction in which fire travels, fire intensity and possibility of spot fires from burning debris. A measure of weather conditions is the Forest Fire Danger Index (FFDI) and Grassland Fire Danger Index (GFDI). These measures are useful in determining the fire danger rating (refer to Fire Danger Rating in Plate 2, below).

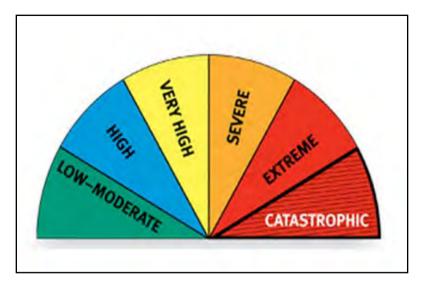


Plate 2. Fire Danger Rating

Source: Queensland Government, Emergency Services and Safety

#### c) Vegetation

Vegetation is the source of fuel for a bushfire. The amount of fuel surrounding a building can directly impact a buildings survival. Vegetation management, landscaping for bushfire and breaking the continuity of vegetation can limit the spread of fire.

# 5.2 Bushfire Damage Sources

The Country Fire Authority (2009) states, "Bushfires can vary in intensity and scale across the landscape". As the past bushfire events throughout Australia have illustrated, bushfires can be devastating and lead to long-running fires which are difficult to suppress. Building survival is influenced by many interacting factors. The four main ways buildings are destroyed during a bushfire include:

- Ember attack:
- Radiant heat:
- Direct flame contact: and
- Fire-driven wind.

#### **Ember Attack**

Research indicates that the most common way buildings catch on fire is through ember attack (80% of house loss). Ember attack occurs when small burning twigs, bark, leaf are carried by wind and land in and around a building. Embers can ignite flammable plants, leaf litter, fences, outdoor furniture and sheds (refer to Plate 3, below). Ember attack is addressed within the AS 3950-2018 through the requirement of construction standards.

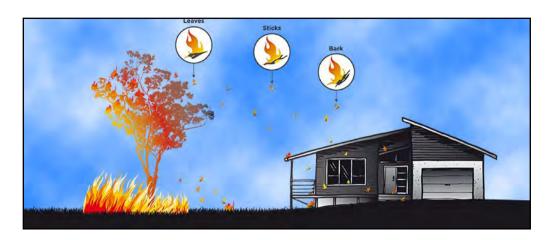


Plate 3. Ember Attack

Source: Country Fire Authority

#### **Radiant Heat**

Radiant heat is the heat created from burning fuel during a bushfire. Radiant heat can ignite surfaces without direct flame contact or ember attack, dry out vegetation ahead of the bushfire, crack glass (allowing embers to enter a building) and distort and melt materials (refer to **Plate 4**, below). The most common cause of loss of human life is via radiant heat (CFA, 2018).



Plate 4. Radiant Heat

Source: Country Fire Authority

#### **Direct Flame Contact**

Direct flame contact occurs when a fire front reaches a building, this is referred to as the 'Flame Zone'. Approximately 20% of house loss occurs when houses/buildings are directly adjacent to bushland.

#### Fire-driven Wind

Fire-driven wind can carry embers, cause trees to fall onto buildings, can break windows and destroy structures. The closer a building is to a fire front, the more severe the impact of fire-driven wind.

## 5.3 Management and Mitigation Measures – Permanent Structures

Management and mitigation measures are generally outlined in relevant planning instruments at both the state and local level.

Mitigation measures emphasize resilience to bushfire and are categorised into the following groups for the permanent structures within the site.

- Layout and Design (Section 5.3.1);
- Building and Construction (Section 5.3.2)
- Firefighting infrastructure (Section 5.3.3);
- Bushfire emergency plan (Section 5.3.4); and
- Vegetation management and landscaping (Section 5.3.5).

An Assessment against the SPP Natural Hazards Risk and Resilience Example Bushfire Code is provided in **Appendix A**.

#### 5.3.1 LAYOUT DESIGN

#### Access and Egress

Marist College, Ashgrove currently has numerous access and egress points for the site. One main access point connects to Frasers Road to the east, to the south there is a secondary access to the east, to Moola Road. A third access via Glenlyon Drive leads south to Acacia Drive. These access points are considered sufficient to support evacuation in the event of an emergency, and access for fire-fighting personnel and equipment where needed as they provide opportunities for evacuation in different directions away from the potential fuel source. All roads within the site are closed surface and suitable for all-weather usage.

#### Siting of Development

It is acknowledged that as the site use is an existing school, and new infrastructure is required to be extensions and annexes of existing buildings, alternative siting opportunities for buildings is limited. With regards to buildings proposed outside the footprint of existing buildings (ie. excluding proposed renovations), new structures within close proximity to hazardous vegetation include the Music Annex, the Covered Area to the north of the Champagnat Centre, Learning Hub, and the Primary School Buildings.

Whilst Bushfire Attack Levels (BAL) do not apply to the proposed classes of buildings, a BAL assessment was utilised to determine the potential radiant heat exposure the proposed buildings could experience in the event of a Bushfire. The vegetation within the Army Barracks land to the west of the school has been used as the hazardous or Classifiable Vegetation, to determine potential radiant heat flux exposure to the proposed new Master Plan buildings (refer Figure 8 – Figure 10).

The inputs into the Flamesol Minimum Distance Calculator include a Flame Temperature of 1200k, variable fuel loads reflecting the differing Vegetation Hazard Classes, and variable slopes along the western boundary. Refer **Appendix D** for Slope Calculations and Flamesol Inputs.

The Music Annex is to be constructed within the same alignment of the existing Music Room, located approximately 13m from the hazardous vegetation to the west (refer **Figure 8**). The radiant heat exposure

to this building is greater than 40kW/m<sup>2</sup> (refer **Table 6**), however is not exposed to greater heat flux than the existing music building. Some trees and understorey are present between the proposed development footprint and the site boundary.

The proposed Covered Area to the north of the Champagnat Building is located 17.5m from the hazardous vegetation to the west (refer **Figure 9**). The radiant heat exposure of the Covered Area falls between 40kW/m² and 29kW/m² (refer **Table 7**). The Covered Area is set back from the alignment of the existing footprint of the Champagnat Building and the radiant heat flux exposure accordingly is lower. The area to the west between the Covered Area and the site boundary is currently a low fuel load environment, providing an additional buffer to the hazardous vegetation.

The remainder of the proposed works are exposed to a radiant heat flux of 10kW/m<sup>2</sup> or less (refer **Figure 10**). This includes the Primary School, Learning Hub, Assembly Complex, Carrick Extensions, CLE Building, Dining Extension and BR Cyprian Pavilion.

Accordingly, the majority of buildings will be exposed a radiant heat flux of 12.5kW/m<sup>2</sup> or less. Only one proposed building, the Music Annex, is exposed to a higher radiant heat flux (40kW/m<sup>2</sup>). Whilst this level of exposure is in line with the exposure experienced by the existing school buildings along the western boundary, additional vegetation management along this boundary and within the Defence Land is highly recommended (refer Section 5.3.5).

Table 6. Summary of Radiant Heat Exposure at proposed Music Annex.

Radiant Heat (kW/m²)	Setback Distance from Classifiable Vegetation to the West
10	47.5 m
12.5	40.6 m
19	29.4 m
29	20.6 m
40	15.3 m

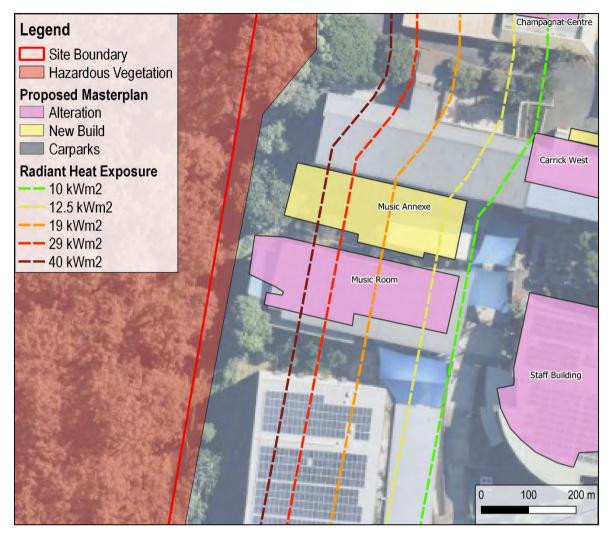


Figure 8. Radiant Heat Exposure Modelled Setback for Hazardous Vegetation to the West of Music Annex

Table 7 Summary of Radiant Heat Exposure at proposed Cover Area

Radiant Heat (kW/m²)	Setback Distance from Classifiable Vegetation to the West
10	45 m
12.5	38.3 m
19	27.6 m
29	19.2 m
40	14.1 m

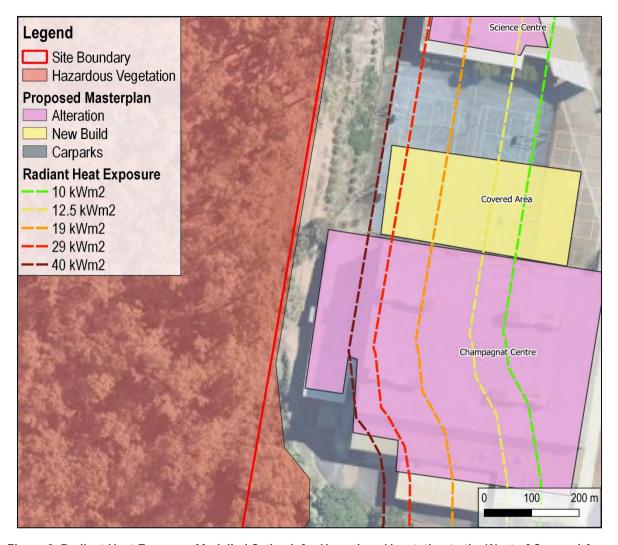


Figure 9. Radiant Heat Exposure Modelled Setback for Hazardous Vegetation to the West of Covered Area

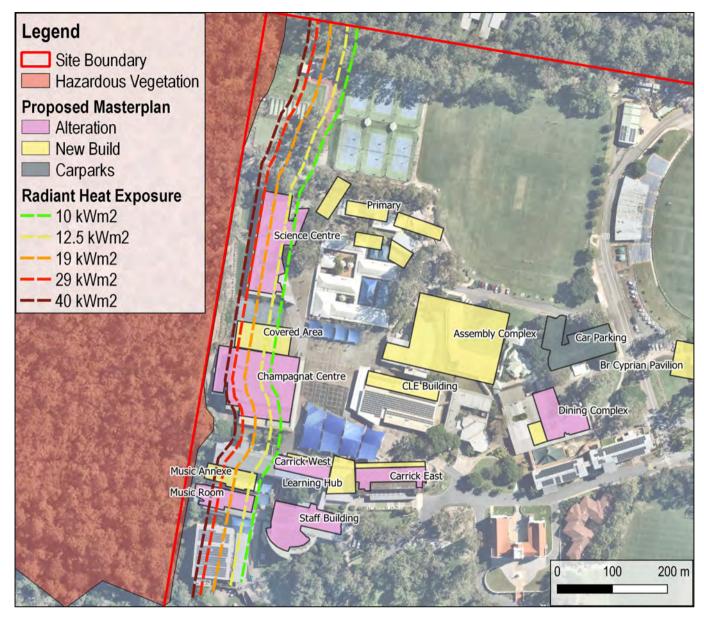


Figure 10. Radiant Heat Exposure Modelled Setback for Hazardous Vegetation to the west for Proposed Master Plan

#### Design

Whilst the requirement for a BAL assessment and the construction requirements of Australian Standard 3959-2018 - *Construction of Buildings in Bushfire Prone Areas* does not apply to this Class of Building, it is highly recommended that consideration of building materials and their intrinsic flammability be given highest priority. Non-flammable or Low Flammability materials should be incorporated throughout building design wherever possible.

#### 5.3.2 BUILDING AND CONSTRUCTION REQUIREMENTS

#### AS3959 – 2018 Construction Standards

In accordance with the BCA, the AS 3959-2018 requirements for construction of buildings do not apply to classrooms buildings.

#### Early Warning Systems

Smoke alarms must be installed within the proposed buildings in accordance with the Building Code of Australia and the AS 3786-1993 - *Smoke Alarms*. The Queensland Fire and Emergency Services recommends photoelectric smoke alarms (not ionization alarms). Photoelectric smoke alarms are generally more effective than ionization types as they detect visible particles of combustion.

#### 5.3.3 FIREFIGHTING INFRASTRUCTURE

The site is connected to a reticulated water supply. It is anticipated that the reticulated water network within the area complies with the provisions outlined in the SEQ Water Supply & Sewage Design & Construction Code. Firefighting appliances (such as fire extinguisher) are to be incorporated within the design of the buildings, in accordance with the NCC requirements for fire resistance. Additional fire hydrants are to be installed in accordance with AS2419.1 -2005 Fire Hydrant Installations-System design, installation and commissioning, if required. However, firefighting appliances have limitations and should not be used in cases where evacuation is considered the appropriate action.

#### 5.3.4 BUSHFIRE EMERGENCY PLAN

It is anticipated that Marist College, Ashgrove has an existing Emergency Response Plan in place. It is recommended that this plan be modified to incorporate Bushfire Risk and emergency response procedures for a Bushfire event and include the new buildings to identify suitably emergency assembly points and evacuation routes for anyone within these buildings in the event of an emergency.

Emergency Assembly Areas should be located away from areas of bushfire risk and have high connectivity with emergency evacuation routes. For example, the oval to the northeast of the school would be suitable emergency assembly point due to its disconnection with fuel-source, low-flammability surface and connectivity with evacuation routes.

In the event of a Bushfire Emergency, the local QFES should be contacted immediately. The Ashgrove Fire and Rescue Station is located approximately 1 km south of the site. The contact details for the Ashgrove Fire and Rescue Station are as follows:

- Address: 515 Waterworks Rd, Ashgrove QLD 4060
- Phone: (07) 3366 0258, Please note that in fire emergencies the triple zero (000) emergency telephone number should be used.

#### 5.3.5 VEGETATION MANAGEMENT AND LANDSCAPING

The majority of the proposed works are located within a low bushfire hazard area, with the exception of the area along the western boundary. Accordingly, it is highly recommended that the School maintains discussions with the Property Management personnel of the Gallipoli Army Barracks with regard to the establishment and maintenance of a suitable fire break within their property adjacent to the schools western

boundary. A 20m wide cleared area is recommended to be cleared and maintained as an Asset Protection Zone within the Defence Land along the shared boundary with Marist College. The clearing may be undertaken through applying exemptions under the *Planning Regulation 2017* for clearing associated with fences and for tracks. This will provide a 20m wide setback to hazardous vegetation from the shared boundary reducing the radiant heat exposure experienced by all buildings along the school's western boundary.

Similarly, it is recommended an Asset Protection Zone is implemented between the western boundary and the school buildings, proposed and existing (refer Figure 11). This is relevant to the Music Room and Annex, Champagnat Centre and Covered Extension, and, the Science Centre. In general, the Asset Protection Zone within the College is to be managed in a very low fuel state. This will involve limiting the horizontal and vertical connectivity of vegetation, by ensuring any vegetation retained or planted is located in patches and shrubs are not located under the canopies of trees. Trees present are to have their lower limbs trimmed to reduce vertical connections into their canopies so as to for further reduce the risk of fire spreading to the infrastructure. There should also be a clear separation of 2m between the Music Annex and the tree adjacent, which may require some canopy pruning. Removal of understorey vegetation including weed species in this location, and, reducing of leaf litter build up, should be regularly undertaken to minimise the risk of bush fire spread. Low flammability ground treatments such as lawn (maintained at less than 10 mm in height), concrete, gravel, and pavers should be implemented. A low fuel load environment should be maintained between the existing and proposed buildings in this area and the western site boundary

Landscaping plays an important role in increasing a buildings' ability to endure bushfire attack. Landscaping for bushfire reduces the risk of ember attack which is the most common cause of building loss during bushfire Any Landscaping within 100 m of the hazardous vegetation within the Army Barracks land is recommended to adhere to the following requirements outlined in SPP Technical Reference Guide – Bushfire Resilient Communities. This includes utilisation of low flammability treatments such as rock mulches, concrete retaining blocks, and appropriate plantings.

Appropriate plant attributes to consider implementing in landscape design to reduce bushfire risk include:

- High leaf moisture content;
- Lower volatile oil content;
- Higher leaf mineral content;
- Broad-leaved species;
- Resilience to pruning;
- Low ignition likelihood;
- A low volume of persistent dead leaves/branches;
- Smooth or tightly-held bark; and
- Leaves and twigs that do not regularly fall.

The Victorian Country Fire Authority (CFA) have produced an online Plant Selection Key which facilitates landscape designers and property owners to select fire wise garden plants. The CFA have also produced

the publication 'Landscaping for Bushfire: Garden Design and Plant Selection' (CFA, 2011). The publication outlines planning, designing, choosing suitable plants, maintaining gardens and provides a Plant Selection Key, and can be obtained from their website (refer to **8.0 References**).

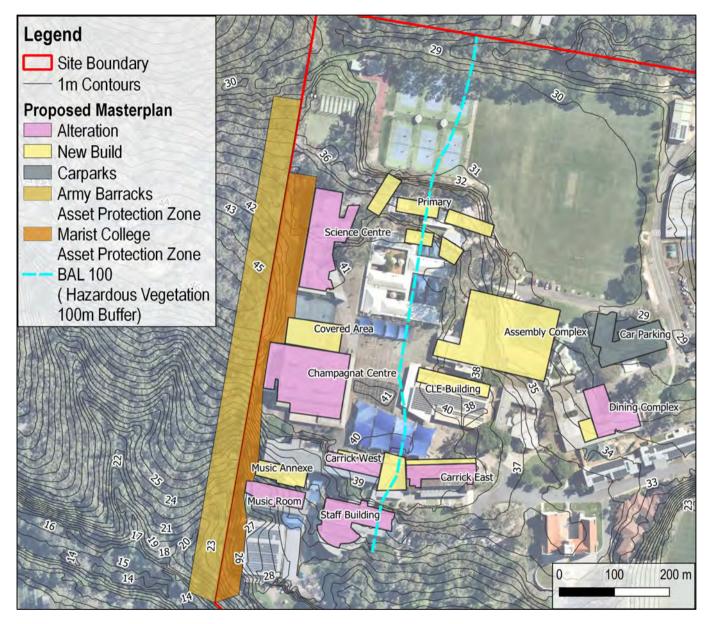


Figure 11. Recommended Asset Protection Zones

#### 6.0 RISK ASSESSMENT

To satisfy the outcomes of the SPP 2017, a simple risk assessment in general accordance with *Australian Standard ISO 31000:2018 Risk Management* – Guidelines has been completed below. ISO 31000:2018 provides principles and generic guidelines on risk management and can be applied to any type of risk, whatever its nature, whether having positive or negative consequences.

#### 6.1 Bushfire Risk Assessment

Risk is a product of Likelihood and Consequence. When considering the risk of bushfire on human assets such as residences, schools, bridges etc., the methodology used to assess the level of bushfire risk will be based on the following:

- Likelihood Rating The chance of bushfire igniting, spreading and reaching the asset; and
- Consequence Rating The outcome or impact of a bushfire event on an asset, as measured by the threat posed by the hazard vegetation and the vulnerability of the asset.

Human assets are generally defined as one of the following Asset Subcategories:

- **Residential** Residential areas, including rural properties and urban interface areas;
- Places of Temporary Occupation Commercial districts and industrial areas, mining sites or camps, and other locations where people may work or gather that are located away from towns and population centres; and
- Special Risk and Critical Facilities Locations and facilities where the occupants may be more vulnerable to bushfire for one or more of the following reasons:
  - Occupants may have limited knowledge about the impact of bushfire;
  - Occupants may have a reduced capacity to evaluate risk and respond adequately to bushfire threat;
  - Occupants may be more vulnerable to stress and anxiety arising from bushfire threat or the effects of smoke;
  - There may be significant communication barriers; or
  - Relocation and/or management of occupants may present unique challenges or difficulties such as transportation of occupants, or providing alternative accommodation, healthcare or food supplies.

Accordingly, the proposed works within Marist College is classified within the Special Risk and Critical Facilities Asset Subcategory.

To determine the Risk on the Special Risk and Critical Facility, being in this case the proposed new buildings, the Likelihood and Consequence needs to be determined in accordance with the following Tables and definitions:

## Table 8 Ranking Risk Assessment by Likelihood

Likelihood Ranking	Frequency of Occurrence
Almost Certain (Sure to Happen)	Is expected to occur in most circumstances; High level of recorded incidents and/or strong anecdotal evidence; and/or Strong Likelihood the event will reoccur; and/or May occur more than once in 5 years.
<b>Likely</b> (Probable)	Regular recorded incidents and strong anecdotal evidence; and/or May occur at least once in 5 years.
Possible (Feasible but less than probable)	Should occur at some stage; and/or Few, infrequent, random recorded incidents or little anecdotal evidence.
Unlikely (Improbable, not likely)	Would occur under exceptional circumstances.

Table 9. Ranking Risk Assessment by Consequence

Consequence Ranking	Severity of Consequence
Catastrophic	Multiple fatalities and/or extensive cases of serious injury; Extensive damage to assets across facility requiring significant ongoing asset recovery; and Facility partially functioning with widespread inconvenience.
Major	Potential fatalities and/or multiple cases of serious injury; Significant damage to assets across facility requiring ongoing recovery; and Facility partially functioning with widespread inconvenience.
Moderate	No Fatalities, possible isolated injuries; Localized damage of assets across facility; and Facility continues to function as normal with some inconvenience.
Minor	No Fatalities; Near misses or minor first aid treatment possibly required; and Inconsequential or no damage to an asset.

### Rating the Likelihood and Consequence

To determine the **Likelihood** rating for an asset the following is considered:

- Do Fires occur frequently? Yes or No NO;
- If a fire occurs, is it expected to spread and reach the asset? Yes or No YES.

Table 10. Determination of Likelihood Rating

		If a Fire occurs, is it expected to spread to each Asset?	
		No	Yes
Do Fires occur	Yes	Possible	Almost Certain
frequently?	No	Unlikely	LIKELY

To determine the **Consequence** rating for an asset the following is considered:

- Threat The threat posed by the hazard vegetation? Moderate;
- Vulnerability The vulnerability of the asset? Moderate.

Accordingly, with the implementation of the bushfire mitigation measures discussed in **Section 5**, the proposed works are expected to have a *Medium Bushfire Risk Rating*.

Table 11. Risk Matrix

		Consequence				
		Minor Moderate Major Catastrophi				
	Almost Certain	High	Very High	Extreme	Extreme	
pooq	Likely	Medium	HIGH	Very High Extreme		
Likelihood	Possible	Low	Medium	High	Very High	
	Unlikely	Low	Low	Medium	High	

#### 7.0 CONCLUSIONS

The Bushfire Hazard Assessment concluded that the proposed new buildings under the Master Plan for the Marist College, Ashgrove are located within 100 m of Hazardous Vegetation and that bushfire risk is present to varying degrees across the school grounds. While the majority of the school is located within Low Hazard area, there is Very High, High and Medium Hazard PFLI within 100m of the proposed master planned works.

Hazardous vegetation is located within the Gallipoli Army Barracks. As a result of this setback, the majority of the proposed buildings have been determined to be potentially exposed to a radiant heat flux of 10kW/m² or lower. The Covered Area will be exposed to a radiant heat flux of 29kW/m², lower than the adjoining building to the south, and the Music Annex, 40kW/m². This exposure is considered acceptable as the works are proposed within the existing footprint of the school, and not expected to increase the school's bushfire risk. However, it is highly recommended that arrangements are be made with the property managers of the Gallipoli Army Barracks to plan an Asset Protection Zone. This should consist of a cleared 20m setback from the shared boundary with Marist College, and be continually maintained.

Due to the hazard rating determined by the hazard assessment, a site-specific Bushfire Management Plan was developed. The Bushfire Management Plan recommends key mitigation measures which should be implemented to ensure the risk to people and property is acceptable and minimised. These measures are summarised as:

- Asset Protection Zone placed over the recommended 20m wide Army Barracks setback, to be regularly slashed;
- Asset Protection Zone implemented along the western boundary between existing and proposed buildings;
- Undertake vegetation management in the school Asset Protection Zone to maintain in a very low fuel state;
- Build fire-resistant buildings in accordance with the BCA and AS3959-2018 (where applicable), in particular constructing the Accommodation Buildings in accordance to BAL 12.5 construction standards;
- Including early warning systems and fire-fighting infrastructure such as: smoke alarms, fire
  extinguishers, and fire hydrants, in the design of buildings and layout of the subdivision;
- Ensure up-to-date evacuation and emergency procedure plans are prepared; and
- Implement low-flammability landscaping within 100 m of bushland areas.

A Bushfire Risk Assessment, conducted in accordance with AS/NZS ISO 3100-2018 determined that with the implementation of the above recommended mitigation measures, the risk of a bushfire igniting, spreading and causing damage to the proposed development along the western boundary and people within is considered High.

The proposed development complies with the SPP Natural Hazards, Risks and Resilience Example Bushfire Code, refer to **Appendix A**.

#### 8.0 REFERENCES

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Queensland Fire and Emergency Services (2019). Fire Hydrant and Vehicle Access Guidelines for Residential, Commercial and Industrial Lots. Queensland Government, Australia.

Queensland Government (2016) State Planning Policy – State Interest Technical Manual - Natural Hazards, Risk and Resilience

Standards Australia Committee FP – 020 (2018) Australian Standard – Construction of buildings in bushfire-prone areas (AS3959-2018), Council of Standards Australia, Sydney.

# **APPENDIX A**

SPP Natural Hazards, Risks and Resilience – Bushfire Code

#### **SOLUTIONS** COMMENTS Complies PERFORMANCE OUTCOMES **ACCEPTABLE OUTCOMES** Non-Compliance Performance Solution Not Applicable Section A - Not applicable Reconfiguring a Lot – Where creating more than 2000 square meters Section B - Not Applicable Reconfiguring a Lot - Where creating lots of 2000 square meters or less Section C - Not Applicable Reconfiguring a Lot - Where creating more than 20 lots Section D - Not Applicable Reconfiguring a Lot – Where creating additional lots for the purpose of residential development and a reticulated water supply is not provided Section F -Material Change of Use There is a need to expand the learning PO14 AO14 facilities of the Marist College, Ashgrove. As Vulnerable uses listed in Table 7 are not established or No acceptable outcome is prescribed. it is an existing school, built on limited intensified within a bushfire prone area unless: space, it is essential the school can build up a) there is an overriding need in the public interest for the in previously cleared and modified areas. new or expanded service the development provides; and While there may be an alternate location for there are no other suitable alternative locations within the Music Annex, it is located adjacent the the required catchment; and existing music building and alternate site planning can appropriately mitigate the risk (for locations are logistically impractical example, siting ovals for an educational establishment considering the existing use. between the hazardous vegetation and structures. Note – The preparation of a bushfire management plan in

S521036BF002V1.1 Marist College
Bushfire Hazard Assessment and Management Plan

accordance with

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTION:  ✓ Complies X Non-Com PS Performa NA Not Applie	apliance ance Solution
the methodology in the QFES Bushfire resilient communities document		✓	The recommended clearing in the Army Barracks, and the 7m plus setback to the site western site boundary will mitigate risk. It is recommended that vegetation management is undertaken in the zone between the proposed new and renovated buildings and the western boundary in the form of a maintained asset protection zone.
Section F Where involving an asset protection zone			
PO17 Asset protection zones are designed and managed to ensure they do not increase the potential for bushfire hazard. Note – The preparation of a landscape management plan undertaken in accordance with the methodology in the QFES Bushfire resilient communities document may assist in demonstrating compliance with this performance outcome.	AO17.1  Landscaping treatments within any asset protection zone comprise only low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.  Note – Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack, for example short-cropped grass to a nominal height of 10 centimetres.	✓	Zone between the proposed buildings and the western boundary is generally an existing low-fuel environment as can be expected of a school facility. Further management and maintenance of the area is to be guided by the recommendations in Section 5.3.5.
	AO17.2  Landscaping management within any asset protection zone maintains a:  (a) potential available fuel load which is less than eight tonnes/hectare in aggregate; and	✓	

PERFORMANCE OUTCOMES	ACCEPTABLE OUTCOMES	SOLUTIONS  Complies  X Non-Comp  PS Performar  NA Not Applica	liance nce Solution
	(b) fuel structure which is discontinuous.  Note – The preparation of a landscape management plan undertaken in accordance with the methodology in the QFES Bushfire resilient communities document may assist in demonstrating compliance with this acceptable outcome.		
Section G – Not Applicable Where planning provisions or conditions of approval requ	ire revegetation or rehabilitation		

# **APPENDIX B**

SPP Bushfire Prone Areas Map





#### Date: 06/07/2021

State Planning Policy
Making or amending a local planning instrument
and designating land for community infrastructure

**Queensland Government** 

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140 280 420 560

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Metres

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## Legend

#### Cadastre (10k)

Cadastre (10k)

#### Bushfire prone area

Very High Potential Bushfire Intensity

High Potential Bushfire Intensity

Medium Potential Bushfire Intensity

Potential Impact Buffer





State Planning Policy
Making or amending a local planning instrument
and designating land for community infrastructure





# **APPENDIX C**

Vegetation Management Supporting Regional Ecosystem Map



# **Vegetation management report**

For Lot: 364 Plan: SP272699

01/06/2021



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# **Recent changes**

#### Updated mapping

Updated vegetation mapping was released on 6 April 2020 and includes the most recent Queensland Herbarium scientific updates to the Regulated Vegetation Management Map, regional ecosystems, wetland, high-value regrowth and essential habitat mapping.

Improvements to the format of the report were made in July 2020 to more clearly delineate the three regulatory frameworks of vegetation management, protected plants and koala habitat protection. The Vegetation Management Pre-clear Regional Ecosystem map was also removed from the Vegetation Management Report but can still be requested as a separate map.

#### **Overview**

Based on the lot on plan details you have supplied, this report provides the following detailed information:

**Property details** - information about the specified Lot on Plan, lot size, local government area, bioregion(s), subregion(s) and catchment(s);

**Vegetation management framework** - an explanation of the application of the framework and contact details for the Department of Resources who administer the framework;

#### Vegetation management framework details for the specified Lot on Plan including:

- the vegetation management categories on the property;
- the vegetation management regional ecosystems on the property;
- vegetation management watercourses or drainage features on the property;
- vegetation management wetlands on the property;
- vegetation management essential habitat on the property;
- whether any area management plans are associated with the property;
- · whether the property is coastal or non-coastal; and
- whether the property is mapped as Agricultural Land Class A or B;

**Protected plant framework** - an explanation of the application of the framework and contact details for the Department of Environment and Science who administer the framework, including:

high risk areas on the protected plant flora survey trigger map for the property;

**Koala protection framework** - an explanation of the application of the framework and contact details for the Department of Environment and Science who administer the framework; and

#### Koala protection framework details for the specified Lot on Plan including:

- the koala district the property is located in;
- koala priority areas on the property;
- core and locally refined koala habitat areas on the property;
- whether the lot is located in an identified koala broad-hectare area; and
- koala habitat regional ecosystems on the property for core koala habitat areas.

This information will assist you to determine your options for managing vegetation under:

- the vegetation management framework, which may include:
  - exempt clearing work;
  - accepted development vegetation clearing code;
  - an area management plan;
  - a development approval;
- the protected plant framework, which may include:
  - the need to undertake a flora survey;
  - exempt clearing;
  - a protected plant clearing permit;
- the koala protection framework, which may include:
  - exempted development;
  - a development approval;
  - the need to undertake clearing sequentially and in the presence of a koala spotter.

## Other laws

The clearing of native vegetation is regulated by both Queensland and Australian legislation, and some local governments also regulate native vegetation clearing. You may need to obtain an approval or permit under another Act, such as the Commonwealth Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Section 8 of this guide provides contact details of other agencies you should confirm requirements with, before commencing vegetation clearing.

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# 1. Property details

## 1.1 Tenure and title area

All of the lot, plan, tenure and title area information associated with property Lot: 364 Plan: SP272699, are listed in Table 1.

Table 1: Lot, plan, tenure and title area information for the property

Lot	Plan	Tenure	Property title area (sq metres)
364	SP272699	Freehold	198,002
А	SP272699	Easement	3,639

The tenure of the land may affect whether clearing is considered exempt clearing work or may be carried out under an accepted development vegetation clearing code.

# 1.2 Property location

Table 2 provides a summary of the locations for property Lot: 364 Plan: SP272699, in relation to natural and administrative boundaries.

**Table 2: Property location details** 

Local Government(s)		
Brisbane City		

Bioregion(s)	Subregion(s)		
Southeast Queensland	Burringbar - Conondale Ranges		

Catchment(s)
Brisbane

# 2. Vegetation management framework (administered by the Department of Resources)

The *Vegetation Management Act 1999* (VMA), the Vegetation Management Regulation 2012, the *Planning Act 2016* and the Planning Regulation 2017, in conjunction with associated policies and codes, form the Vegetation Management Framework.

The VMA does not apply to all land tenures or vegetation types. State forests, national parks, forest reserves and some tenures under the *Forestry Act 1959* and *Nature Conservation Act 1992* are not regulated by the VMA. Managing or clearing vegetation on these tenures may require approvals under these laws.

The following native vegetation is not regulated under the VMA but may require permit(s) under other laws:

- grass or non-woody herbage;
- a plant within a grassland regional ecosystem prescribed under Schedule 5 of the Vegetation Management Regulation 2012; and
- a mangrove.

# 2.1 Exempt clearing work

Exempt clearing work is an activity for which you do not need to notify the Department of Resources or obtain an approval under the vegetation management framework. Exempt clearing work was previously known as exemptions.

In areas that are mapped as Category X (white in colour) on the regulated vegetation management map (see section 4.1), and where the land tenure is freehold, indigenous land and leasehold land for agriculture and grazing purposes, the clearing of vegetation is considered exempt clearing work and does not require notification or development approval under the vegetation management framework. For all other land tenures, contact the Department of Resources before commencing clearing to ensure that the proposed activity is exempt clearing work.

A range of routine property management activities are considered exempt clearing work. A list of exempt clearing work is available at

https://www.gld.gov.au/environment/land/vegetation/exemptions/.

Exempt clearing work may be affected if the proposed clearing area is subject to development approval conditions, a covenant, an environmental offset, an exchange area, a restoration notice, or an area mapped as Category A. Exempt clearing work may require approval under other Commonwealth, State or Local Government laws, or local government planning schemes. Contact the Department of Resources prior to clearing in any of these areas.

# 2.2 Accepted development vegetation clearing codes

Some clearing activities can be undertaken under an accepted development vegetation clearing code. The codes can be downloaded at

https://www.qld.gov.au/environment/land/vegetation/codes/

If you intend to clear vegetation under an accepted development vegetation clearing code, you must notify the Department of Resources before commencing. The information in this report will assist you to complete the online notification form.

You can complete the online form at

https://apps.dnrm.qld.gov.au/vegetation/

## 2.3 Area management plans

Area Management Plans (AMP) provide an alternative approval system for vegetation clearing under the vegetation management framework. They list the purposes and clearing conditions that have been approved for the areas covered by the plan. It is not necessary to use an AMP, even when an AMP applies to your property.

On 8 March 2020, AMPs ended for fodder harvesting, managing thickened vegetation and managing encroachment. New notifications cannot be made for these AMPs. You will need to consider options for fodder harvesting, managing thickened vegetation or encroachment under a relevant accepted development vegetation clearing code or apply for a development approval.

New notifications can be made for all other AMPs. These will continue to apply until their nominated end date.

If an Area Management Plan applies to your property for which you can make a new notification, it will be listed in Section 3.6 of this report. Before clearing under one of these AMPs, you must first notify the Department of Resources and then follow the conditions and requirements listed in the AMP.

https://www.gld.gov.au/environment/land/vegetation/area-plans/

## 2.4 Development approvals

If under the vegetation management framework your proposed clearing is not exempt clearing work, or is not permitted under an accepted development vegetation clearing code, or an AMP, you may be able to apply for a development approval. Information on how to apply for a development approval is available at

https://www.qld.gov.au/environment/land/management/vegetation/development

# 2.5. Contact information for the Department of Resources

For further information on the vegetation management framework:

Phone 135VEG (135 834)

Email vegetation@resources.qld.gov.au

Visit https://www.dnrme.gld.gov.au/?contact=vegetation to submit an online enquiry.

# 3. Vegetation management framework for Lot: 364 Plan: SP272699

# 3.1 Vegetation categories

The vegetation categories on your property are shown on the regulated vegetation management map in section 4.1 of this report. A summary of vegetation categories on the subject lot are listed in Table 3. Descriptions for these categories are shown in Table 4.

Table 3: Vegetation categories for subject property. Total area: 19.55ha

Vegetation category	Area (ha)		
Category B	2.6		
Category X	16.9		

Table 4: Description of vegetation categories

Category	Colour on Map	Description	Requirements / options under the vegetation management framework		
A	red	Compliance areas, environmental offset areas and voluntary declaration areas	Special conditions apply to Category A areas. Before clearing, contact the Department of Resources to confirm any requirements in a Category A area.		
В	dark blue	Remnant vegetation areas	Exempt clearing work, or notification and compliance with accepted development vegetation clearing codes, area management plans or development approval.		
С	light blue	High-value regrowth areas	Exempt clearing work, or notification and compliance with managing Category C regrowth vegetation accepted development vegetation clearing code.		
R	yellow	Regrowth within 50m of a watercourse or drainage feature in the Great Barrier Reef catchment areas	Exempt clearing work, or notification and compliance with managing Category R regrowth accepted development vegetation clearing code or area management plans.		
X	white	Clearing on freehold land, indigenous land and leasehold land for agriculture and grazing purposes is considered exempt clearing work under the vegetation management framework. Contact the Department of Resources to clarify whether a development approval is required for other State land tenures.	No permit or notification required on freehold land, indigenous land and leasehold land for agriculture and grazing. A development approval may be required for some State land tenures.		

#### **Property Map of Assessable Vegetation (PMAV)**

There is no Property Map of Assessable Vegetation (PMAV) present on this property.

## 3.2 Regional ecosystems

The endangered, of concern and least concern regional ecosystems on your property are shown on the vegetation management supporting map in section 4.2 and are listed in Table 5.

A description of regional ecosystems can be accessed online at https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/descriptions/

Table 5: Regional ecosystems present on subject property

Regional Ecosystem	VMA Status	Category	Area (Ha)	Short Description	Structure Category
12.11.3	Least concern	В	0.67	Eucalyptus siderophloia, E. propinqua +/- E. microcorys, Lophostemon confertus, Corymbia intermedia, E. acmenoides open forest on metamorphics +/- interbedded volcanics	Mid-dense
12.11.5	Least concern	В	1.76	Corymbia citriodora subsp. variegata woodland to open forest +/- Eucalyptus siderophloia/E. crebra, E. carnea, E. acmenoides, E. propinqua on metamorphics +/- interbedded volcanics	Mid-dense
12.3.11	Of concern	В	0.08	Eucalyptus tereticornis +/- Eucalyptus siderophloia, Corymbia intermedia open forest on alluvial plains usually near coast	Mid-dense
12.3.7	Least concern	В	0.13	Eucalyptus tereticornis, Casuarina cunninghamiana subsp. cunninghamiana +/- Melaleuca spp. fringing woodland	Sparse
non-rem	None	Х	16.91	None	None

#### Please note:

The VMA status of the regional ecosystem (whether it is endangered, of concern or least concern) also determines if any of the following are applicable:

- · exempt clearing work;
- accepted development vegetation clearing codes;
- performance outcomes in State Code 16 of the State Development Assessment Provisions (SDAP).

#### 3.3 Watercourses

Vegetation management watercourses and drainage features for this property are shown on the vegetation management supporting map in section 4.2.

#### 3.4 Wetlands

There are no vegetation management wetlands present on this property.

#### 3.5 Essential habitat

Under the VMA, essential habitat for protected wildlife is native wildlife prescribed under the *Nature Conservation Act 1992* (NCA) as critically endangered, endangered, vulnerable or near-threatened wildlife.

<sup>1.</sup> All area and area derived figures included in this table have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

<sup>2.</sup> If Table 5 contains a Category 'plant', please be aware that this refers to 'plantations' such as forestry, and these areas are considered non-remnant under the VMA.

Essential habitat for protected wildlife includes suitable habitat on the lot, or where a species has been known to occur up to 1.1 kilometres from a lot on which there is assessable vegetation. These important habitat areas are protected under the VMA.

Any essential habitat on this property will be shown as blue hatching on the vegetation supporting map in section 4.2.

If essential habitat is identified on the lot, information about the protected wildlife species is provided in Table 6 below. The numeric labels on the vegetation management supporting map can be cross referenced with Table 6 to outline the essential habitat factors for that particular species. There may be essential habitat for more than one species on each lot, and areas of Category A, Category B and Category C can be mapped as Essential Habitat.

Essential habitat is compiled from a combination of species habitat models and buffered species records. Regional ecosystem is a mandatory essential habitat factor, unless otherwise stated. Essential habitat, for protected wildlife, means an area of vegetation shown on the Regulated Vegetation Management Map -

- 1) that has at least 3 essential habitat factors for the protected wildlife that must include any essential habitat factors that are stated as mandatory for the protected wildlife in the essential habitat database. Essential habitat factors are comprised of regional ecosystem (mandatory for most species), vegetation community, altitude, soils, position in landscape; or
- 2) in which the protected wildlife, at any stage of its life cycle, is located.

If there is no essential habitat mapping shown on the vegetation management supporting map for this lot, and there is no table in the sections below, it confirms that there is no essential habitat on the lot.

#### Category A and/or Category B and/or Category C

Table 6: Essential habitat in Category A and/or Category B and/or Category C

Label	Scientific Name	Common Name	NCA Status	Vegetation Community	Altitude	Soils	Position in Landscape
860	Phascolarctos cinereus	koala	V	SEQ: Open eucalypt forest and woodland that has: a) multiple strata layers containing Eucalyptus, Corymbia, Angophora, Lophostemon or Melaleuca trees that-at 1.3 metres above the ground-have a diameter both greater and less than 30 centimetres; and b) at least 1 of the following species: Eucalyptus tereticornis, E. fibrosa, E. propinqua; E. umbra, E. grandis, E. microcorys, E. tindaliae, E. resinifera, E. populnea, E. robusta, E. nigra, E. racemosa, E. crebra, E. exserta, E. seeana, Lophostemon confertus, L. suaveolens, Melaleuca quinquenervia. Outside SEQ: Open eucalypt forest and woodland that contains Eucalyptus &/or Corymbia spp. Tree species used for food varies across State and can include Eucalyptus tereticornis, E. camaldulensis, E. coolabah; E. drepanophylla, E. platyphylla, E. orgadophilla, E. thozetiana, E. melanophloia, E. populnea, E. melliodora, E. dealbata, E. microtheca, E. crebra, E. exserta, E. blakelyi, E. papuana, Corymbia tessellaris, C. citriodora, Melaleuca quinquenervia, M. leucadendra.	Sea level to 1000m.	None	Riparian areas, plains and hill/escarpment slopes.
706	Adelotus brevis	tusked frog	V	In cavities, under debris (logs, stones) in subtropical vine forest, tall open moist forest, heaths, Melaleuca swamp and pasturelands near puddles and streams.	Sea level to 1000m.	None	None
1107	Ninox strenua	powerful owl	V	Wet and dry tall open eucalypt forest (Eucalyptus pilularis, E. acmenoides, E. tereticornis, E. camaldulensis, E. crebra, E. melliodora, Corymbia citriodora & C. intermedia), including mountain forest gullies/gorges; forests aged 60+ years (large & old) on fertile soils with suitable hollows; roosting in dense foliage of closed forest (occasionally caves) and foraging in open forest and woodland including areas adjacent to urban/rural development. Nest in large hollows (45-75cm diameter, 50-180cm deep) 6-45m above ground, in large (>100cm dbh) old eucalypts on the side or at the head of heavily wooded gully.	Sea level to 1000m.	None	Gully.

Regional Ecosystem (mandatory unless otherwise specified)
SEQ: 11.32, 11.34, 11.325, 11.326, 11.82, 11.84, 11.8.5, 11.8.8, 11.9.9, 12.25, 12.26, 12.2.7, 12.2.8, 12.2.10, 12.3.2, 12.3.3, 12.3.4, 12.3.5, 12.3.6, 12.3.7, 12.3.9, 12.3.10, 12.3.11, 12.3.14, 12.3.18, 12.3.19, 12.3.20,
125.1, 125.2, 125.3, 125.4, 125.6, 125.7, 125.10, 125.12, 128.1, 128.8, 128.9, 128.11, 128.12, 128.14, 128.16, 128.17, 128.20, 128.24, 128.25, 12.9-10.1, 12.9-10.2, 12.9-10.3, 12.9-10.4, 12.9-10.5, 12.9-10.7,
12.9-10.8, 12.9-10.11, 12.9-10.12, 12.9-10.14, 12.9-10.17, 12.9-10.18, 12.9-10.19, 12.9-10.21, 12.9-10.25, 12.9-10.26, 12.9-10.27, 12.9-10.28, 12.9-10.29, 12.11.2, 12.11.3, 12.11.5, 12.11.6, 12.11.7, 12.11.8, 12.11.9,
12.11.14, 12.11.15, 12.11.16, 12.11.17, 12.11.18, 12.11.22, 12.11.23, 12.11.24, 12.11.25, 12.11.26, 12.11.27, 12.11.28, 12.12.2, 12.12.3, 12.12.5, 12.12.6, 12.12.7, 12.12.8, 12.12.9, 12.12.11, 12.12.12, 12.12.14, 12.12.15,
12.12.23, 12.12.24, 12.12.25, 12.12.28. Outside SEQ: 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, 4.3.6, 4.3.8, 4.3.10, 4.3.11, 4.4.1, 4.5.3, 4.5.5, 4.5.6, 4.5.8, 4.5.9, 4.7.1, 4.7.7, 4.7.8, 4.9.6, 4.9.10, 4.9.12, 4.9.17, 6.3.1, 6.3.2, 6.3.3, 6.3.4,
6.3.5, 6.3.7, 6.3.8, 6.3.9, 6.3.11, 6.3.12, 6.3.17, 6.3.18, 6.3.22, 6.3.24, 6.3.25, 6.4.1, 6.4.2, 6.4.3, 6.4.4, 6.5.1, 6.5.2, 6.5.3, 6.5.5, 6.5.6, 6.5.7, 6.5.8, 6.5.9, 6.5.10, 6.5.11, 6.5.13, 6.5.14, 6.5.15, 6.5.16, 6.5.17, 6.5.18, 6.5.19,
6.6.2, 6.7.1, 6.7.2, 6.7.5, 6.7.6, 6.7.7, 6.7.9, 6.7.11, 6.7.12, 6.7.13, 6.7.14, 6.7.17, 6.9.3, 7.2.3, 7.2.4, 7.2.7, 7.2.11, 7.3.7, 7.3.8, 7.3.9, 7.3.12, 7.3.13, 7.3.14, 7.3.16, 7.3.19, 7.3.20, 7.3.21, 7.3.25, 7.3.26, 7.3.39, 7.3.40, 7.3.42,
7.3.43, 7.3.44, 7.3.45, 7.3.47, 7.3.48, 7.3.50, 7.5.1, 7.5.2, 7.5.3, 7.5.4, 7.8.7, 7.8.8, 7.8.10, 7.8.15, 7.8.16, 7.8.17, 7.8.18, 7.8.19, 7.11.5, 7.11.6, 7.11.13, 7.11.14, 7.11.16, 7.11.18, 7.11.19, 7.11.20, 7.11.21, 7.11.31, 7.11.32,
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10711 10712 1092 1093 1095 10 101 10 103 10 104 10 105 10 107 11 21 11 25 11 31 11 32 11 33 11 34 11 35 11 36 11 37 11 39 11 310 11 312 11 313 11 314 11 315 11 316 11 317
113.18 113.19 113.21 113.23 113.25 113.26 113.27 113.28 113.29 113.30 113.32 113.33 113.35 113.36 113.37 113.38 113.39 114.2 114.3 114.7 114.8 114.9 114.10 114.12 114.13 115.1
11.5.2. 11.5.3. 11.5.4. 11.5.5. 11.5.7. 11.5.8. 11.5.9. 11.5.12. 11.5.13. 11.5.14. 11.5.17. 11.5.18. 11.5.20. 11
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# 3.6 Area Management Plan(s)

Nil

# 3.7 Coastal or non-coastal

For the purposes of the accepted development vegetation clearing codes and State Code 16 of the State Development Assessment Provisions (SDAP), this property is regarded as\*

Coastal

\*See also Map 4.3

# 3.8 Agricultural Land Class A or B

The following can be used to identify Agricultural Land Class A or B areas under the "Managing regulated regrowth vegetation" accepted development vegetation clearing code:

Does this lot contain land that is mapped as Agricultural Land Class A or B in the State Planning Interactive Mapping System?

No Class A

No Class B

Note - This confirms Agricultural Land Classes as per the State Planning Interactive Mapping System only. This response does not include Agricultural Land Classes identified under local government planning schemes. For further information, check the Planning Scheme for your local government area.

See Map 4.4 to identify the location and extent of Class A and/or Class B Agricultural land on Lot: 364 Plan: SP272699.

# 4. Vegetation management framework maps

Vegetation management maps included in this report may also be requested individually at: https://www.dnrme.gld.gov.au/gld/environment/land/vegetation/vegetation-map-request-form

#### Regulated vegetation management map

The regulated vegetation management map shows vegetation categories needed to determine clearing requirements. These maps are updated monthly to show new <u>property maps of assessable vegetation (PMAV).</u>

#### Vegetation management supporting map

The vegetation management supporting map provides information on regional ecosystems, wetlands, watercourses and essential habitat.

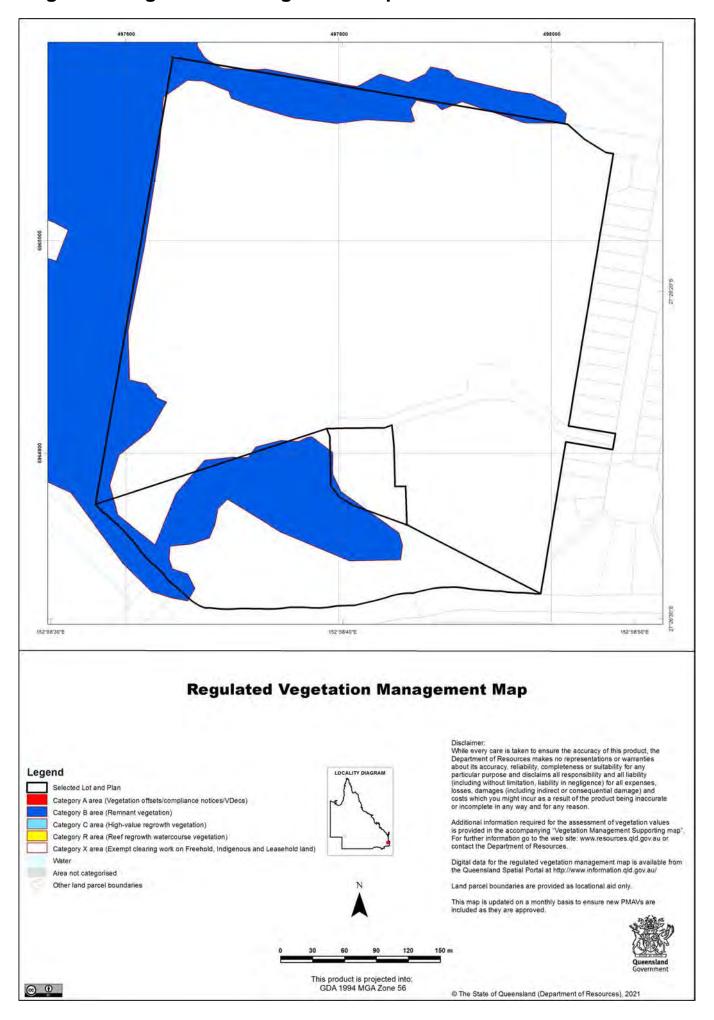
#### Coastal/non-coastal map

The coastal/non-coastal map confirms whether the lot, or which parts of the lot, are considered coastal or non-coastal for the purposes of the accepted development vegetation clearing codes and State Code 16 of the State Development Assessment Provisions (SDAP).

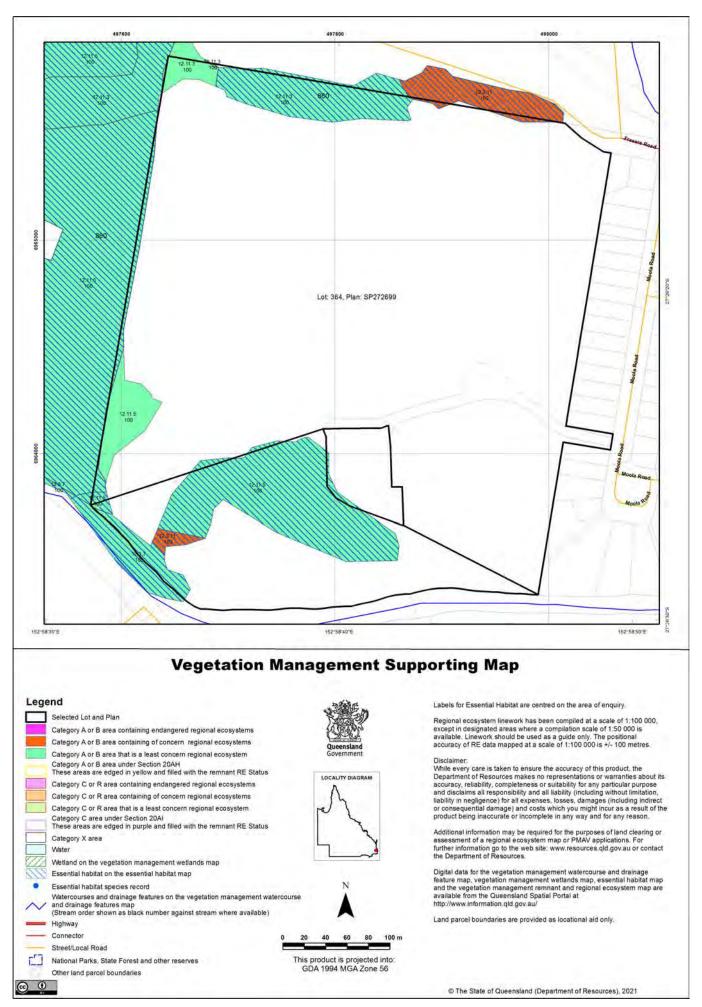
#### Agricultural Land Class A or B as per State Planning Policy: State Interest for Agriculture

The Agricultural Land Class map confirms the location and extent of land mapped as Agricultural Land Classes A or B as identified on the State Planning Interactive Mapping System. Please note that this map does not include areas identified as Agricultural Land Class A or B in local government planning schemes. This map can be used to identify Agricultural Land Class A or B areas under the "Managing regulated regrowth vegetation" accepted development vegetation clearing code.

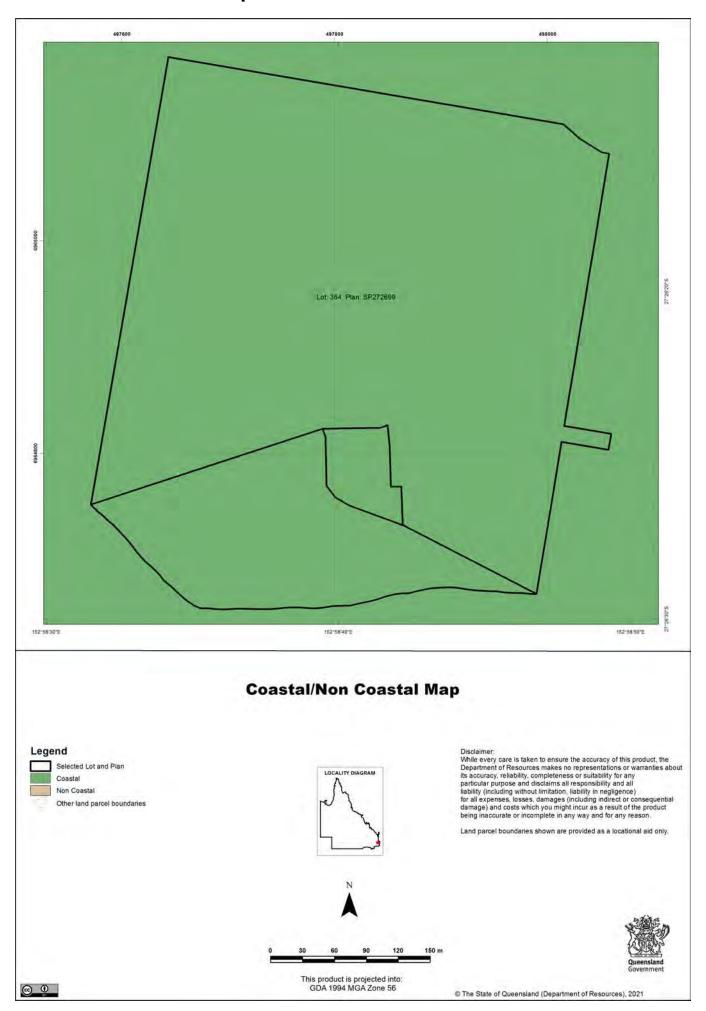
# 4.1 Regulated vegetation management map



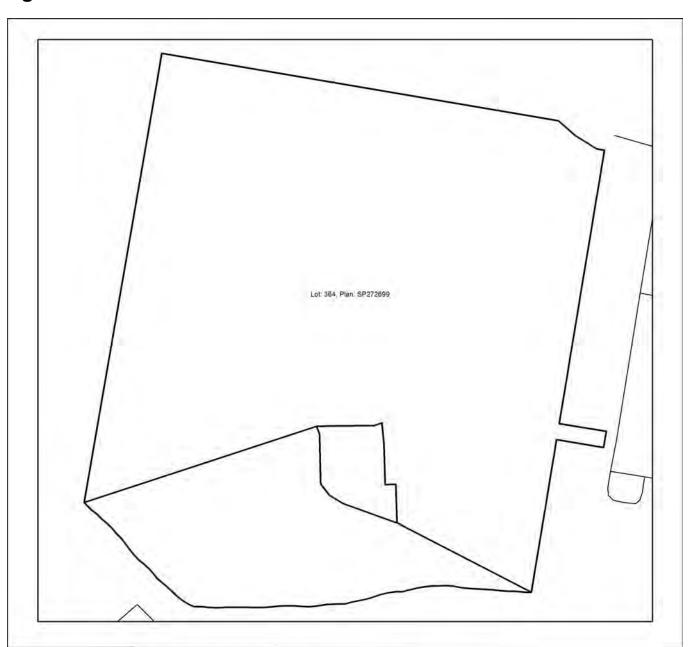
# 4.2 Vegetation management supporting map

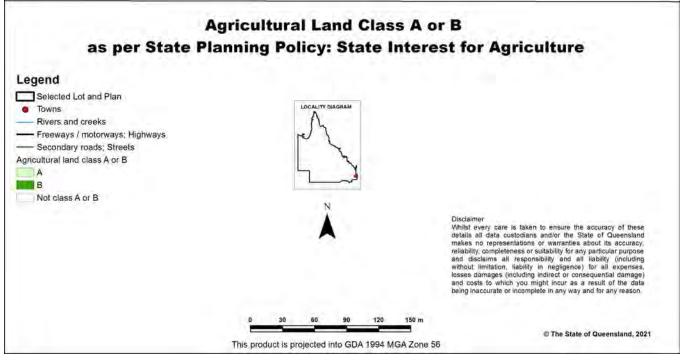


# 4.3 Coastal/non-coastal map



# 4.4 Agricultural Land Class A or B as per State Planning Policy: State Interest for Agriculture





# 5. Protected plants framework (administered by the Department of Environment and Science (DES))

In Queensland, all plants that are native to Australia are protected plants under the <u>Nature Conservation Act 1992</u> (NCA). The NCA regulates the clearing of protected plants 'in the wild' (see <u>Operational policy: When a protected plant in Queensland is considered to be 'in the wild'</u>) that are listed as critically endangered, endangered, vulnerable or near threatened under the Act.

Please note that the protected plant clearing framework applies irrespective of the classification of the vegetation under the *Vegetation Management Act 1999* and any approval or exemptions given under another Act, for example, the *Vegetation Management Act 1999* or *Planning Regulation 2017*.

## 5.1 Clearing in high risk areas on the flora survey trigger map

The flora survey trigger map identifies high-risk areas for endangered, vulnerable or near threatened (EVNT) plants. These are areas where EVNT plants are known to exist or are likely to exist based on the habitat present. The flora survey trigger map for this property is provided in section 5.5.

If you are proposing to clear an area shown as high risk on the flora survey trigger map, a flora survey of the clearing impact area must be undertaken by a suitably qualified person in accordance with the <u>Flora survey guidelines</u>. The main objective of a flora survey is to locate any EVNT plants that may be present in the clearing impact area.

If the flora survey identifies that EVNT plants are not present within the clearing impact area or clearing within 100m of EVNT plants can be avoided, the clearing activity is exempt from a permit. An <u>exempt clearing notification form</u> must be submitted to the Department of Environment and Science, with a copy of the flora survey report, at least one week prior to clearing.

If the flora survey identifies that EVNT plants are present in, or within 100m of, the area to be cleared, a clearing permit is required before any clearing is undertaken. The flora survey report, as well as an impact management report, must be submitted with the <u>clearing permit application form</u>.

## 5.2 Clearing outside high risk areas on the flora survey trigger map

In an area other than a high risk area, a clearing permit is only required where a person is, or becomes aware that EVNT plants are present in, or within 100m of, the area to be cleared. You must keep a copy of the flora survey trigger map for the area subject to clearing for five years from the day the clearing starts. If you do not clear within the 12 month period that the flora survey trigger map was printed, you need to print and check a new flora survey trigger map.

# 5.3 Exemptions

Many activities are 'exempt' under the protected plant clearing framework, which means that clearing of native plants that are in the wild can be undertaken for these activities with no need for a flora survey or a protected plant clearing permit. The Information sheet - General exemptions for the take of protected plants provides some of these exemptions.

Some exemptions under the NCA are the same as exempt clearing work (formerly known as exemptions) under the Vegetation Management Act 1999 (i.e. listed in Schedule 21 of the Planning Regulations 2017) while some are different.

#### 5.4 Contact information for DES

For further information on the protected plants framework:

Phone 1300 130 372 (and select option four)

Email palm@des.qld.gov.au

Visit https://www.qld.gov.au/environment/plants-animals/plants/protected-plants

## 5.5 Protected plants flora survey trigger map

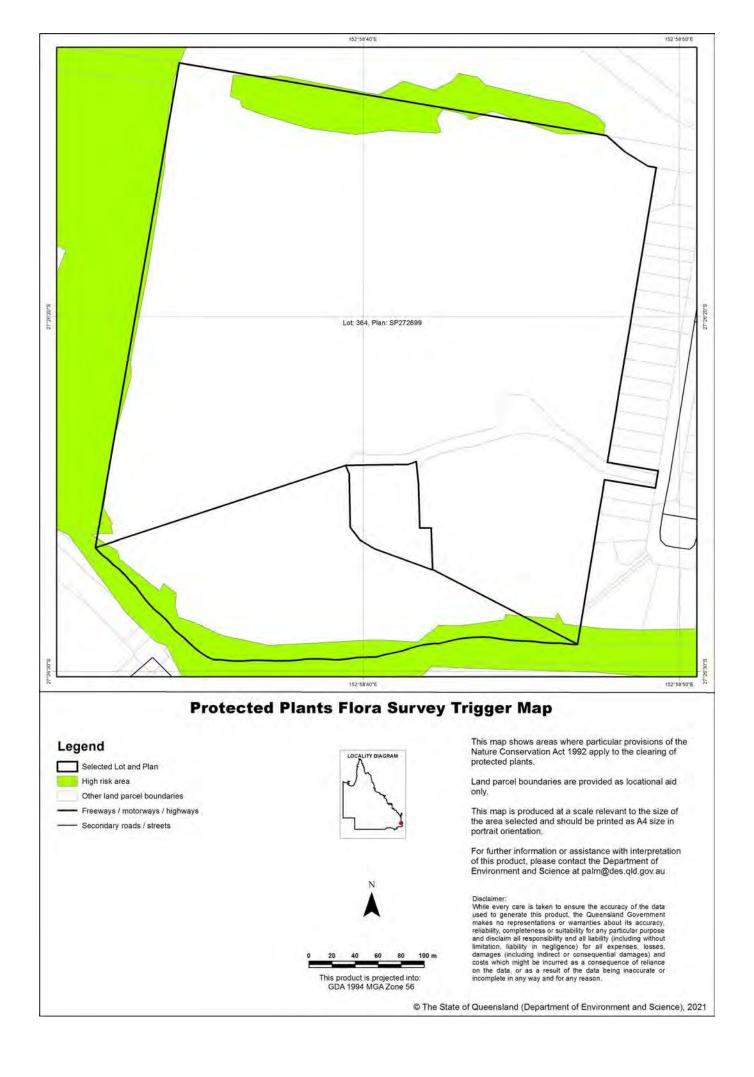
This map included may also be requested individually at: <a href="https://apps.des.gld.gov.au/map-request/flora-survey-trigger/">https://apps.des.gld.gov.au/map-request/flora-survey-trigger/</a>.

#### Updates to the data informing the flora survey trigger map

The flora survey trigger map will be reviewed, and updated if necessary, at least every 12 months to ensure the map reflects the most up-to-date and accurate data available.

#### **Species information**

Please note that flora survey trigger maps do not identify species associated with 'high risk areas'. While some species information may be publicly available, for example via the <u>Queensland Spatial Catalogue</u>, the Department of Environment and Science does not provide species information on request. Regardless of whether species information is available for a particular high risk area, clearing plants in a high risk area may require a flora survey and/or clearing permit. Please see the Department of Environment and Science webpage on the <u>clearing of protected plants</u> for more information.



# 6. Koala protection framework (administered by the Department of Environment and Science (DES))

The koala (*Phascolarctos cinereus*) is listed in Queensland as vulnerable by the Queensland Government under *Nature Conservation Act 1992* and by the Australian Government under the *Environment Protection and Biodiversity Conservation Act 1999*.

The Queensland Government's koala protection framework is comprised of the *Nature Conservation Act 1992*, the Nature Conservation (Animals) Regulation 2020, the Nature Conservation (Koala) Conservation Plan 2017, the *Planning Act 2016* and the Planning Regulation 2017.

## 6.1 Koala mapping

#### 6.1.1 Koala districts

The parts of Queensland where koalas are known to occur has been divided into three koala districts - koala district A, koala district B and koala district C. Each koala district is made up of areas with comparable koala populations (e.g. density, extent and significance of threatening processes affecting the population) which require similar management regimes.

Section 7.1 identifies which koala district your property is located in.

#### 6.1.2 Koala habitat areas

Koala habitat areas are areas of vegetation that have been determined to contain koala habitat that is essential for the conservation of a viable koala population in the wild based on the combination of habitat suitability and biophysical variables with known relationships to koala habitat (e.g. landcover, soil, terrain, climate and ground water). In order to protect this important koala habitat, clearing controls have been introduced into the Planning Regulation 2017 for development in koala habitat areas.

Please note that koala habitat areas only exist in koala district A which is the South East Queensland "Shaping SEQ" Regional Plan area. These areas include the local government areas of Brisbane, Gold Coast, Logan, Lockyer Valley, Ipswich, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and Toowoomba (urban extent).

There are two different categories of koala habitat area (core koala habitat area and locally refined koala habitat), which have been determined using two different methodologies. These methodologies are described in the document <a href="Spatial modelling in South East Queensland">Spatial modelling in South East Queensland</a>.

Section 7.2 shows any koala habitat area that exists on your property.

Under the Nature Conservation (Koala) Conservation Plan 2017, an owner of land (or a person acting on the owner's behalf with written consent) can request to make, amend or revoke a koala habitat area determination if they believe, on reasonable grounds, that the existing determination for all or part of their property is incorrect.

More information on requests to make, amend or revoke a koala habitat area determination can be found in the document Guideline - Requests to make, amend or revoke a koala habitat area determination.

The koala habitat area map will be updated at least annually to include any koala habitat areas that have been made, amended or revoked.

Changes to the koala habitat area map which occur between annual updates because of a request to make, amend or revoke a koala habitat area determination can be viewed on the register of approved requests to make, amend or revoke a koala habitat area available at: <a href="https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping/koalamaps">https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping/koalamaps</a>. The register includes the lot on plan for the change, the date the decision was made and the map issued to the landholder that shows areas determined to be koala habitat areas.

#### 6.1.3 Koala priority areas

Koala priority areas are large, connected areas that have been determined to have the highest likelihood of achieving conservation outcomes for koalas based on the combination of habitat suitability, biophysical variables with known relationships to koala habitat (e.g. landcover, soil, terrain, climate and ground water) and a koala conservation cost benefit analysis.

Conservation efforts will be prioritised in these areas to ensure the conservation of viable koala populations in the wild including a focus on management (e.g. habitat protection, habitat restoration and threat mitigation) and monitoring. This includes a prohibition on clearing in koala habitat areas that are in koala priority areas under the Planning Regulation 2017 (subject to some exemptions).

Please note that koala priority areas only exist in koala district A which is the South East Queensland "Shaping SEQ" Regional Plan area. These areas include the local government areas of Brisbane, Gold Coast, Logan, Lockyer Valley,

Ipswich, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and Toowoomba (urban extent).

Section 7.2 identifies if your property is in a koala priority area.

#### 6.1.4 Identified koala broad-hectare areas

There are seven identified koala broad-hectare areas in SEQ. These are areas of koala habitat that are located in areas committed to meet development targets in the SEQ Regional Plan to accommodate SEQ's growing population including bring-forward Greenfield sites under the Queensland Housing Affordability Strategy and declared master planned areas under the repealed *Sustainable Planning Act 2009* and the repealed *Integrated Planning Act 1997*.

Specific assessment benchmarks apply to development applications for development proposed in identified koala broad-hectare areas to ensure koala conservation measures are incorporated into the proposed development.

Section 7.2 identifies if your property is in an identified koala broad-hectare area.

# 6.2 Koala habitat planning controls

On 7 February 2020, the Queensland Government introduced new planning controls to the Planning Regulation 2017 to strengthen the protection of koala habitat in South East Queensland (i.e. koala district A).

More information on these planning controls can be found here: <a href="https://environment.des.gld.gov.au/wildlife/animals/living-with/koalas/mapping/legislation-policy">https://environment.des.gld.gov.au/wildlife/animals/living-with/koalas/mapping/legislation-policy</a>.

As a high-level summary, the koala habitat planning controls make:

- development that involves interfering with koala habitat (defined below) in an area that is both a koala priority area and a koala habitat area, prohibited development (i.e. development for which a development application cannot be made);
- development that involves interfering with koala habitat (defined below) in an area that is a koala habitat area but is not a koala priority area, assessable development (i.e. development for which development approval is required); and
- development that is for extractive industries where the development involves interfering with koala habitat (defined below) in an area that is both a koala habitat area and a key resource area, assessable development (i.e. development for which development approval is required).

#### Interfering with koala habitat means:

- 1) Removing, cutting down, ringbarking, pushing over, poisoning or destroying in anyway, including by burning, flooding or draining native vegetation in a koala habitat area; but
- 2) Does not include destroying standing vegetation stock or lopping a tree.

However, these planning controls do not apply if the development is exempted development as defined in Schedule 24 of the <u>Planning Regulation 2017</u>. More information on exempted development can be found here: <a href="https://environment.des.gld.gov.au/wildlife/animals/living-with/koalas/mapping/legislation-policy">https://environment.des.gld.gov.au/wildlife/animals/living-with/koalas/mapping/legislation-policy</a>.

There are also assessment benchmarks that apply to development applications for:

- building works, operational works, material change of use or reconfiguration of a lot where:
  - the local government planning scheme makes the development assessable;
  - the premises includes an area that is both a koala priority area and a koala habitat area; and
  - the development does not involve interfering with koala habitat (defined above); and
- development in identified koala broad-hectare areas.

The <u>Guideline - Assessment Benchmarks in relation to Koala Habitat in South East Queensland assessment benchmarks</u> outlines these assessment benchmarks, the intent of these assessment benchmarks and advice on how proposed development may meet these assessment benchmarks.

# 6.3 Koala Conservation Plan clearing requirements

Section 10 and 11 of the <u>Nature Conservation (Koala) Conservation Plan 2017</u> prescribes requirements that must be met when clearing koala habitat in koala district A and koala district B.

These clearing requirements are independent to the koala habitat planning controls introduced into the Planning Regulation 2017, which means they must be complied with irrespective of any approvals or exemptions offered under other legislation.

Unlike the clearing controls prescribed in the Planning Regulation 2017 that are to protect koala habitat, the clearing requirements prescribed in the Nature Conservation (Koala) Conservation Plan 2017 are in place to prevent the injury or death of koalas when koala habitat is being cleared.

#### 6.4 Contact information for DES

For further information on the koala protection framework:

Phone 13 QGOV (13 74 68)

Email koala.assessment@des.gld.gov.au

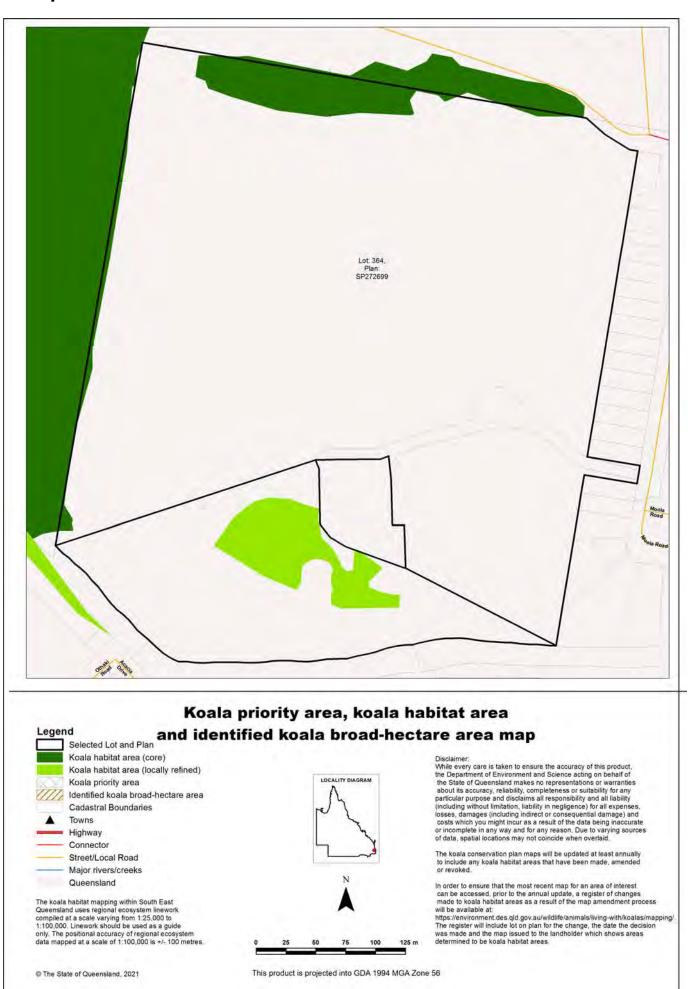
Visit https://environment.des.qld.gov.au/wildlife/animals/living-with/koalas/mapping

# 7. Koala protection framework details for Lot: 364 Plan: SP272699

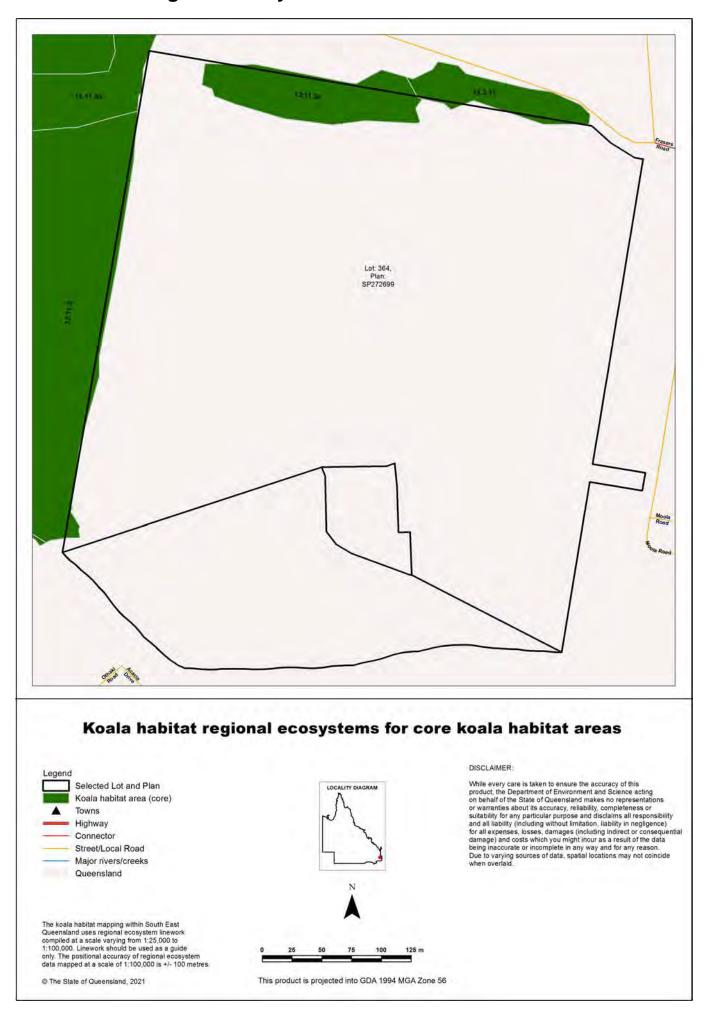
#### 7.1 Koala districts

Koala District A

# 7.2 Koala priority area, koala habitat area and identified koala broad-hectare area map



# 7.3 Koala habitat regional ecosystems for core koala habitat areas



# 8. Other relevant legislation contacts list

Activity	Legislation	Agency	Contact details	
Interference with overland flow     Earthworks, significant disturbance	Water Act 2000 Soil Conservation Act 1986	Department of Regional Development, Manufacturing and Water (Queensland Government) Department of Resources (Queensland Government)	Ph: 13 QGOV (13 74 68) www.dnrme.qld.gov.au	
Indigenous Cultural Heritage	Aboriginal Cultural Heritage Act 2003 Torres Strait Islander Cultural Heritage Act 2003	Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships	Ph: 13 QGOV (13 74 68) www.datsip.qld.gov.au	
Mining and environmentally relevant activities     Infrastructure development (coastal)     Heritage issues	Environmental Protection Act 1994 Coastal Protection and Management Act 1995 Queensland Heritage Act 1992	Department of Environment and Science (Queensland Government)	Ph: 13 QGOV (13 74 68) www.des.qld.gov.au	
Protected plants and protected areas	Nature Conservation Act 1992	Department of Environment and Science (Queensland Government)	Ph: 1300 130 372 (option 4) palm@des.qld.gov.au www.des.qld.gov.au	
Koala mapping and regulations	Nature Conservation Act 1992	Department of Environment and Science (Queensland Government)	Ph: 13 QGOV (13 74 68) Koala.assessment@des.qld.gov.au	
<ul> <li>Interference with fish passage in a watercourse, mangroves</li> <li>Forestry activities on State land tenures</li> </ul>	Fisheries Act 1994 Forestry Act 1959	Department of Agriculture and Fisheries (Queensland Government)	Ph: 13 QGOV (13 74 68) www.daf.qld.gov.au	
Matters of National Environmental Significance including listed threatened species and ecological communities	Environment Protection and Biodiversity Conservation Act 1999	Department of Agriculture, Water and the Environment (Australian Government)	Ph: 1800 803 772 www.environment.gov.au	
Development and planning processes	Planning Act 2016 State Development and Public Works Organisation Act 1971	Department of State Development, Infrastructure, Local Government and Planning (Queensland Government)	Ph: 13 QGOV (13 74 68) www.dsdmip.qld.gov.au	
Local government requirements	Local Government Act 2009 Planning Act 2016	Department of State Development, Infrastructure, Local Government and Planning (Queensland Government)	Ph: 13 QGOV (13 74 68) Your relevant local government office	
Harvesting timber in the Wet     Tropics of Qld World Heritage area	Wet Tropics World Heritage Protection and Management Act 1993	Wet Tropics Management Authority	Ph: (07) 4241 0500 www.wettropics.gov.au	

# APPENDIX D

Slope and Flamesol Calculations

Project Marist College Ashgrove

Number: S521036



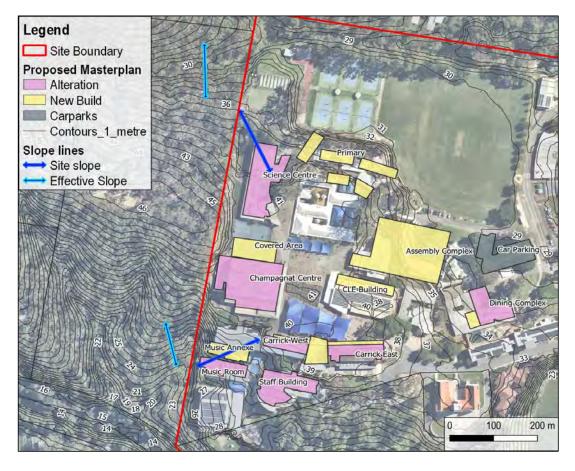
# **BUSHFIRE SLOPE CALCULATOR**

Nth West - VHC 9.2							
Effective Slope							
Direction	Downslope						
Top Elevation	35						
Bottom Elevation	33	Slope %	3.77%				
Distance	53	Slope (°)	2.16				

Site Slope					
	Downslope				
Top Elevation	38	m			
Bottom Elevation	36	m	Slope %	3.01%	
Distance	66.5	m	Slope (°)	1.72	

SthWest - VHC 9.1							
Effective Slope	Effective Slope						
	Upslope						
Top Elevation	32 ا	m					
Bottom Elevation	23 ו	m	Slope %	20.74%			
Distance	43.4	m	Slope (°)	11.88			

Site Slope					
Top Elevation	36	m			
Bottom Elevation	26	m	Slope %	16.39%	
Distance	61	m	Slope (°)	9.39	





Calculated July 20, 2021, 10:18 am (MDc v.4.9)

#### WEST VHC 9.1 North

Minimum Distance Calculator - AS3959-2018 (Method 2)					
Inputs		Outputs			
Fire Danger Index	56	Rate of spread	1.63 km/h		
Vegetation classification	Forest	Flame length	14.36 m		
Understorey fuel load	21 t/ha	Flame angle	65.72 °, 71.72 °, 76.72 °, 79.72 °, 80.72 ° & 85.72 °		
Total fuel load	31 t/ha	Elevation of receiver	6.04 m, 6.14 m, 6.03 m, 5.75 m, 5.55 m & 3.7 m		
Vegetation height	n/a	Fire intensity	26,235 kW/m		
Effective slope	2.16 °	Transmissivity	0.857, 0.838, 0.81299999999999, 0.789, 0.778 & 0.725		
Site slope	1.72 °	Viewfactor	0.4164, 0.3086, 0.2089, 0.1414, 0.1146 & 0.0308		
Flame width	100 m	Minimum distance to < 40 kW/m²	16.8 m		
Windspeed	n/a	Minimum distance to < 29 kW/m²	22.5 m		
Heat of combustion	18,600 kJ/kg	Minimum distance to < 19 kW/m²	31.9 m		
Flame temperature	1,200 K	Minimum distance to < 12.5 kW/m²	43.7 m		
		Minimum distance to < 10 kW/m²	51 m		



Calculated July 20, 2021, 9:48 am (MDc v.4.9)

#### WEST VHC 9.1 South

Minimum Distance Calculator - AS3959-2018 (Method 2)					
Inputs		Outputs			
Fire Danger Index	56	Rate of spread	1.41 km/h		
Vegetation classification	Forest	Flame length	12.89 m		
Understorey fuel load	21 t/ha	Flame angle	65°, 71°, 76°, 78°, 79°&84°		
Total fuel load	31 t/ha	Elevation of receiver	5.84 m, 6.09 m, 6.25 m, 6.3 m, 6.32 m & 6.41 m		
Vegetation height	n/a	Fire intensity	22,602 kW/m		
Effective slope	0 °	Transmissivity	0.861, 0.843, 0.817999999999999, 0.795, 0.783 & 0.728		
Site slope	0 °	Viewfactor	0.4156, 0.3068, 0.2073, 0.1402, 0.1139 & 0.0306		
Flame width	100 m	Minimum distance to < 40 kW/m²	15.3 m		
Windspeed	n/a	Minimum distance to < 29 kW/m²	20.6 m		
Heat of combustion	18,600 kJ/kg	Minimum distance to < 19 kW/m²	29.4 m		
Flame temperature	1,200 K	Minimum distance to < 12.5 kW/m²	40.6 m		
		Minimum distance to < 10 kW/m²	47.5 m		



Calculated July 20, 2021, 10:22 am (MDc v.4.9)

#### West VHC 10.1

Minimum Distance Calculator - AS3959-2018 (Method 2)					
Inputs		Outputs			
Fire Danger Index	56	Rate of spread	1.29 km/h		
Vegetation classification	Forest	Flame length	11.94 m		
Understorey fuel load	19.3 t/ha	Flame angle	65°, 71°, 76°, 79°, 80° & 84°		
Total fuel load	29.3 t/ha	Elevation of receiver	5.41 m, 5.64 m, 5.79 m, 5.86 m, 5.88 m & 5.94 m		
Vegetation height	n/a	Fire intensity	19,633 kW/m		
Effective slope	0 °	Transmissivity	0.864, 0.847, 0.822, 0.799, 0.787 & 0.731		
Site slope	0 °	Viewfactor	0.4123, 0.3061, 0.2063, 0.1398, 0.1134 & 0.0305		
Flame width	100 m	Minimum distance to < 40 kW/m²	14.3 m		
Windspeed	n/a	Minimum distance to < 29 kW/m <sup>2</sup>	19.2 m		
Heat of combustion	18,600 kJ/kg	Minimum distance to < 19 kW/m²	27.6 m		
Flame temperature	1,200 K	Minimum distance to < 12.5 kW/m <sup>2</sup>	38.3 m		
		Minimum distance to < 10 kW/m <sup>2</sup>	45 m		

Rate of Spread - Mcarthur, 1973 & Noble et al., 1980

# APPENDIX D<br/>NALL Mapping



# **Protected Vegetation Report**

Tuesday 1 June, 2021 3:09 PM



# Case Number

Dedicated to a better Brisbane

The Protected Vegetation Report provides property or lot-based protected vegetation information for property owners and managers. This report provides existing information extracted from Council systems on the presence of protected vegetation for the requested address. Refer to the Terms and Definitions section for a glossary of terms. To find out more about how the contents of this report may affect decisions to carry out work on existing vegetation, please visit https://www.brisbane.qld.gov.au/laws-and-permits/laws-and-permits-for-residents/protected-vegetation.

Please note that all trees on the footpath adjacent to or abutting the boundary of a property in Brisbane are protected.

#### This is a report for:

**Customer Name:** Ronnie Gardiner

Address: 182 FRASERS ROAD, Ashgrove



#### Legend

**Council Vegetation** 



Significant Native Vegetation



Significant Urban Vegetation



Waterway and Wetland Vegetation



#### **Advice**

There is vegetation on this property that is protected under the Natural Assets Local Law 2003. There are also other types of protected vegetation including: development history, and heritage listing.

It is an offence to interfere with, or cause, or permit interference with protected vegetation. If you plan to carry out works that may interfere with this vegetation, please apply for a permit, or contact Council on 07 3403 8888.

#### **Disclaimer**

The status of Protected Vegetation for a property provided in this report has been based on the property details supplied by the Customer and determined from the records the best available information to Council at the date of issue. The Protected Vegetation status for a particular property may change if further information becomes available.

The information in the Protected Vegetation Report is for general informational purposes only. All information in the report is provided in good faith, however Council makes no representation or warranty of any kind, express or implied regarding the accuracy, adequacy, validity, reliability, currency or completeness of any information in the report. Under no circumstances will Council have any liability for any loss or damage of any kind incurred as a result of use of the report or reliance on any information provided in the report. Use of the Protected Vegetation report by the Customer and the Customer's reliance on any information in the report is solely at the Customer's risk.

#### **Terms and Definitions**

#### **Natural Assets Local Law**

The NALL is a local law which protects our valuable natural assets from indiscriminate clearing. The NALL affects vegetation on private properties and seeks to balance the needs of landowners with environmental needs. It is not a development control.

Land owners with NALL affected properties must seek Council approval to interfere with clear protected vegetation, except for basic maintenance, weed control and emergency work.

#### Covenant

A Covenant is a type of contract under which certain conditions are tied to the use of a parcel of land. Issued under the Land Titles Act 1994, a Covenant imposes duties or restrictions upon the use of that land regardless of the owner. With regard to vegetation existing on a private property, a Covenant may exist which simultaneously restricts removal of vegetation from the property whilst also requiring that the owner of the property carry out enhancement planting and weed management.

A Covenant may exist as a component of development assessment conditions made during the subdivision stage.

#### **Development History**

Many properties in Brisbane may be subject to conditions set as part of a development approval which relate to the vegetation present on the property. For example, during the subdivision or planning stage of a development particular trees or areas of vegetation may have been required to be retained to meet requirements for the subdivision to be approved. On some properties a specific area is designated for house construction to maximise vegetation retention. These conditions, or history, are tied to the land regardless of the owner.

#### **Heritage Listing**

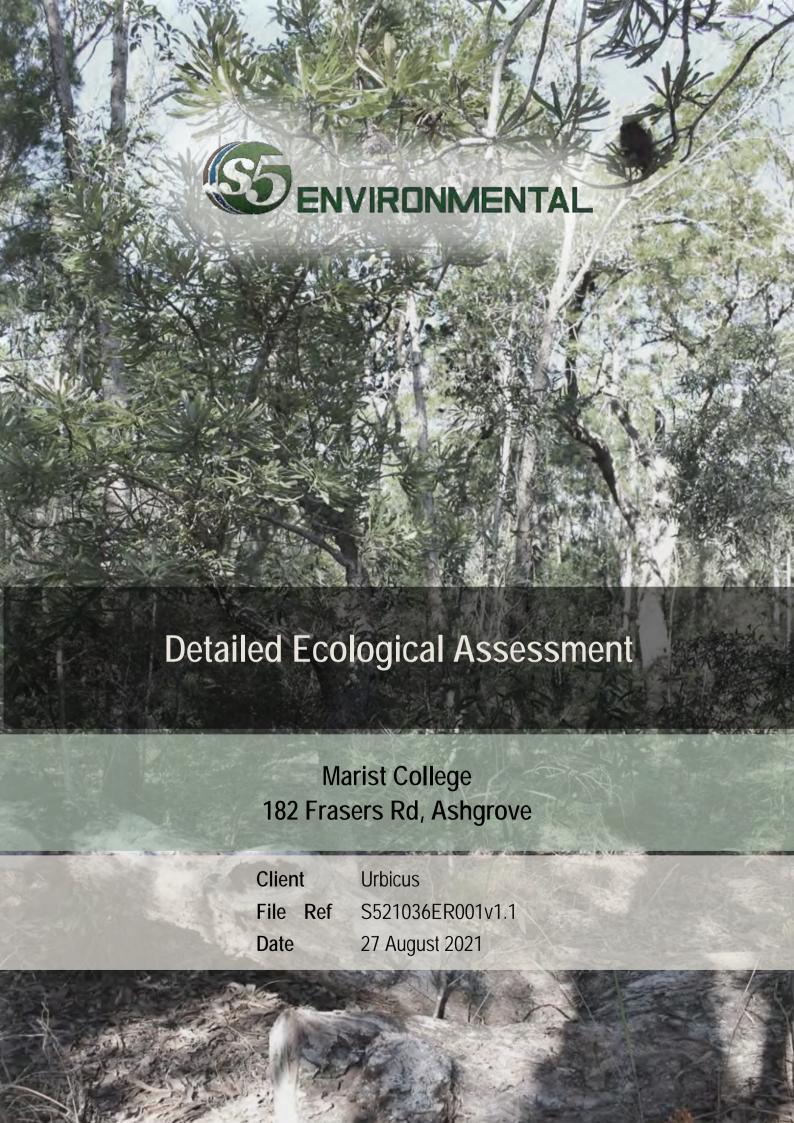
A property may be subject to Heritage listing due to either cultural or natural attributes. The listing may refer to trees or other vegetation on the property. A Heritage tree is one which has been protected due to its cultural or natural heritage significance. These trees may be associated with an historical building but a tree may also be solely protected.

#### **Property Usage**

Certain properties have restrictions on their usage due to the City Plan Flag current on the property. The Brisbane City Plan 2000 sets out Council's intentions for the future development of Brisbane. For example, a property with a City Plan Flag of Environmental Protection could not be used for farming purposes.

#### Interfere with

"Interfere with" means to engage in any activity damaging or leading to the death, disfigurement or mutilation of vegetation including but not limited to, to lop or top, poison, spill onto root zone, cut or tear branches or roots (other than in the course of pruning), ring bark, scar bark, fix objects into, use tree climbing spikes on, damage root zone, uproot or displace, effect the hydrological scheme, burn, scorch, singe or damage by heat or introduce livestock onto protected vegetation



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Date	27/08/2021

#### **Version Control**

Version	Description	Date	Author	Reviewer	Approver
1.1	For Submission	27/08/2021	RG (Ecologist)	LH (Senior Ecologist)	RS (Director)

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#### **Abbreviations**

AHD Australian Height Datum
ALA Atlas of Living Australia
BCC Brisbane City Council

BONN Convention on the Conservation of Migratory Species of Wild Animals 1991 (or the BONN

(Convention)

CAMBA China/Australia Migratory Bird Agreement 1988

CE Critically Endangered
Cwlth Commonwealth

DBH Diameter at Breast Height

DES Department of Environment and Science (Qld)

DNRME Department of Natural Resources, Mines and Energy (Qld)

DAWE Department of the Agriculture, Water and Environment (Cwlth)

DSDMIP Department of State Development, Manufacturing, Infrastructure and Planning (Qld)

E Endangered

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)

EVNT Endangered, Vulnerable and Near Threatened

JAMBA Japan/Australia Migratory Bird Agreement 1981

KADA Koala Assessable Development Area

Koala SPRP South East Queensland Koala Conservation State Planning Regulatory Provisions

km Kilometre M Migratory m Meter

MNES Matters of National Environmental Significance
MSES Matters of State Environmental Significance
MLES Matters of Local Environmental Significance

NCA Nature Conservation Act 1992 (Qld)

NT Near Threatened
RE Regional Ecosystem
PR Planning Regulation 2017

ROKAMBA Republic of Korea Migratory Bird Agreement 2007

QH Queensland Herbarium

QLD Queensland

SARA State Assessment and Referral Agency (Old)
SDAP State Development Assessment Provisions
Contained to Planning Act 2000 (Old)

SPA Sustainable Planning Act 2009 (Qld)

SPP State Planning Policy

SPR Sustainable Planning Regulation 2009 (Qld)

V Vulnerable

VMA Vegetation Management Act 1999 (Qld)



#### 1.0 INTRODUCTION

S5 Environmental was commissioned by Urbicus on behalf of their client Marist College to undertake an Ecological Assessment Report for the school. This Ecological Assessment has been compiled to support an application for a Ministerial Infrastructure Designation (MID) for proposed works to upgrade school facilities under the Master Plan, refer to Table 1.

This report investigates the ecological values, features and functionality of the site, focussed on the areas of proposed works, in the context of the local and regional area and applicable ecological constraints. Further, this report investigates the presence and/or absence of *Nature Conservation Act 1992* (NC Act) and *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed species and ecological corridor connectivity across the site and regional surrounds.

Table 1. Site Description

Street Address	182 Frasers Road, Ashgrove	RPD	Lot 364 on SP272699 Lot 365 on SP272699		
LGA	Brisbane City Council	Area			
Zone	CF5 Community facilities (Education purposes)	y facilities (Education Tenure			
Neighborhood Plan	Ashgrove-Grange District Neighbourhood Plan Enoggera District Neighbourhood Plan	Central Coordinates	-27.4389, 152.9775		
Current State	The proposed works are to be located within the existing school grounds. Some areas on the school grounds consist of manicured gardens, maintained grassy areas and a mixture of native and exotic canopy species. The site has many buildings, carparks and internal roads. The school is bounded by vegetation and the Gallipoli Army Barracks to the west/north-west, and residential developments and sporting facilities to the south and east, refer to <b>Figure 1</b> .				



Ministerial Infrastructure Designation for works includes:

#### **New Buildings**

- Music Annexe
- Learning Hub
- Champagnat Centre (north of)
- Primary School (5 Buildings)
- CLE Building
- Assembly Complex
- Dining Complex (east of)
- BR Cyprian Pavilion

#### **Alterations**

# Proposed Development

- Music Room
- Staff Building
- Carrick Wing West
- Carrick Wing East
- Champagnat Centre
- BR Alexis Turton Science Centre
- Dining Complex
- BR Cyprian Pavilion (south of)

#### Other Infrastructure

Car Parking

The majority of the proposed works are located within the footprint of existing school infrastructure, however some of the proposed development will impact on vegetation, specifically the new primary school, BR Cyprian Pavilion buildings, and, car parking.

Refer to Figure 2 and Figure 3.



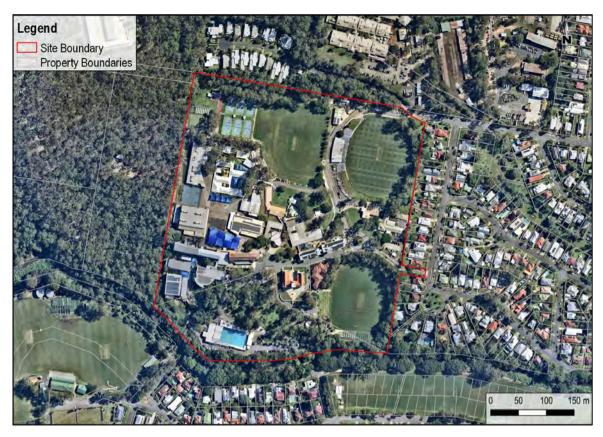


Figure 1. Site Aerial

Source: Near Map (Dated: 25 March 2021), CRS: GDA 94 MGA Zone 56

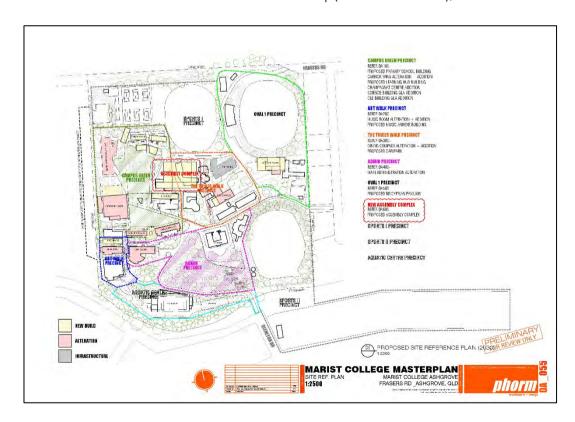


Figure 2. Extract from Marist College Masterplan

Source: Marist College Masterplan P2, 10/06/2021





Figure 3. Proposed Works and Area of Investigation

#### 2.0 METHODOLOGY

The intent of this report is to provide an informed assessment of the ecological values that are present and/or likely to be present on the site, particularly within the areas of proposed works so as to inform master planning, design, and the approval process. This report also provides an assessment of the site's habitat and biodiversity values and ecological functionality. The new proposed infrastructure is located in many different areas of the school grounds, refer to Figure 2 and Figure 3. In the preparation of this assessment the following steps were undertaken:

- Desktop Assessment;
- 2. Legislation and Planning Review;
- Field Surveying;
- 4. Impact Assessment and Development Analysis; and
- 5. Conclusions and Recommendations.

## 2.1 Desktop Assessment

Desktop searches were reviewed prior to the field assessment in order to inform a targeted search for threatened species and ecological communities that could potentially occur on the site. Desktop searches covered the following databases and mapping sources:

#### Databases (Appendix A)

- Department of the Agriculture, Water and Environment (2021), EPBC Act Protected Matters Search Tool (Search of 1 km radius);
- Queensland Government (2021), Wildlife Online Extract, Nature Conservation Act 1992 (Search of 1 km radius);
- MSES Report (Search of 2 km radius).

#### State Mapping (Appendix B)

- Department of Environment and Science (2021a), Koala habitat map request form;
- Queensland Government (2021), Fire ant biosecurity zone mapping Version 1;
- Queensland Government (2021b), Request a vegetation map or property report;
- Department of State Development, Manufacturing, Infrastructure and Planning (2021), Online mapping system which incorporates the State Planning Policy (SPP) Interactive Mapping System (IMS), and the Development Assessment Mapping System (DAMS); and,

#### Local Government Area Mapping

- Brisbane City Council *Interactive mapping tool.* 

In addition, aerial photography was utilised to discern potential wildlife movement corridors and regional ecological function of the locality. The online resource 'Atlas of Living Australia' (ALA, 2021) was also utilised to gather information on potential flora and fauna at the site.



# 2.2 Field Survey Methodology

A detailed site inspection of the site was conducted by S5 Environmental Ecologist's on the 3<sup>rd</sup> of June, 2021. Weather was cool and cloudy, with small showers throughout the survey, with a minimum temperature of 14.9 °C and a maximum temperature of 21.9°C.

For the Ecological Assessment, the 'random meander' technique (Cropper, 1993) was used to traverse the site. A measured walkover of the site was achieved with focus on the areas within and adjacent the development footprints, refer to **Figure 3**. Flora and fauna species were recorded as they were encountered. Vegetation communities were inspected in order to assess their structure, dominance, associations and function. The structure, health and integrity of the ecosystems within the site were also assessed and documented.

Areas, or niches, displaying habitat value were closely examined. This included habitat trees and areas of woody debris that may shelter reptiles. Signs of faunal activity, including tree scratches, nests, dreys, scats, tracks, dens and diggings were also searched for and recorded. These traces were interpreted using Triggs (2008). The ecological intactness of land neighbouring the site was broadly investigated as part of the assessment.



#### 3.0 LEGISLATIVE AND PLANNING OVERVIEW

A review was conducted on the regulatory framework applicable to the project. The review confirmed that all activities within the site must comply with the relevant provisions of Commonwealth, State and Local Legislation, Regulations and Guidelines including but not limited to the following.

# 3.1 International Agreements

Australia participates in the development and implementation of international agreements in relation to the environment, conservation and sustainability. These International Agreements include the following:

- Ramsar Convention on Wetlands;
- Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment (CAMBA);
- Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment (JAMBA);
- Agreement between the Government of Australia and the Government of the Republic of Korea on the Protection of Migratory Birds (ROKAMBA); and
- The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or the Bonn Convention).

Sections 3.1.1 and 3.1.2 below provide a detailed summary of International Agreements in relation to development of the site.

#### 3.1.1 Ramsar Convention

The *Ramsar Convention*, a convention on wetlands of international importance, "is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources".

The site is located 12-20 km upstream from a Ramsar site; Moreton Bay. Due to the distance between the site and the nearest Ramsar sites, and incorporation of best practice stormwater management during the development, it is considered unlikely that the project will have an impact on Moreton Bay.

#### 3.1.2 JAMBA / CAMBA / ROKAMBA / Bonn Convention

The Japan/Australia Migratory Bird Agreement 1981 (JAMBA), China/Australia Migratory Bird Agreement 1988 (CAMBA), Republic of Korea Migratory Bird Agreement 2007 (ROKAMBA) and the Convention on the Conservation of Migratory Species of Wild Animals 1991, or the Bonn Convention, were signed as a means of protecting migratory species and their habitats. JAMBA, CAMBA, ROKAMBA and the Bonn Convention schedule migratory species that are protected under these agreements. The Federal EPBC Act is the legislation in Australia that enforces these Agreements, as all species listed under BONN, JAMBA, CAMBA and ROKAMBA are listed as 'Migratory' under the EPBC Act.



#### 3.2 FEDERAL LEGISLATIVE OVERVIEW

#### 3.2.1 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legislative framework to protect and manage nationally and internationally significant flora, fauna, ecological communities and heritage places. The EBPC Act defines these as Matters of National Environmental Significance (MNES).

The EPBC Act facilitates Australia's commitment to signed international agreements by requiring Federal assessment and approval of proposals that may 'significantly impact' MNES. Under this legislation, a 'self-assessment' is required to ascertain the necessity to refer the matter to the Department of the Agriculture, Water and Environment (DAWE).

The EPBC Act Policy Statement 1.1, the 'Significant Impact Guidelines' further lists a set of 'significant impact criteria' for each of the listed matters of national environmental significance.

The matters of national environmental significance which are applicable to the proposed works include the potential to impact upon:

- Three Listed threatened Ecological Communities;
- 40 Listed threatened species; and
- 15 Migratory species protected under international agreements.

These matters and each species recorded or likely to occur on the site have been assessed against the Significant Impact Guidelines. For fauna and flora species, their likely presence within the site and any impact resultant of the proposed works has been considered. A number of species were returned by these searches as listed to occur within a 1 km radius of the site. The likelihood of these species occurring on site was then assessed and these species were targeted in fieldwork. Table A1 - Threatened and Significant Flora and Fauna Species Identified to <u>likely</u> or <u>known</u> to occur in the area by EPBC, Wildlife Online Database Searches and MSES Report, in Appendix A, summarises the significant flora and fauna species and their likely occurrence on the site, in the context of the site location and habitat available.

The EPBC Act Protected Matters report indicated that three Threatened Ecological Communities (TEC) may occur within the area, refer to **Table 2**. The site inspection confirmed that none of the listed communities were present on site, further the State Regional Ecosystem mapping did not reflect the listed Threatened Ecological Communities.



Table 2 Summary of EPBC Threatened Ecological Communities identified as possibly occurring on site

Threatened Ecological Community	Related REs	EPBC Status	Presence/ Absence from Focal Areas
Coastal Swamp Oak ( <i>Casuarina glauca</i> ) Forest of New South Wales and South East Queensland	12.1.1, 12.3.20	Endangered	Absent
Lowland Rainforest of Subtropical Australia	12.3.1, 12.5.13, 12.8.3, 12.8.4, 12.8.13, 12.11.1, 12.11.13, 12.12.1, 12.12.16	Critically Endangered	Absent
Poplar Box Grassy Woodland on Alluvial Plains	12.11.6	Endangered	Absent

The EPBC Protected Matters Search additionally returned 40 records of listed threatened species and 15 listed migratory species. It is considered generally unlikely that the site would support listed threatened species, with the exception of four mammal species (*Petauroides volans ssp. volans* – Southern Greater Glider, *Phascolarctos cinereus* – Koala, *Pteropus poliocephalus* – Grey-Headed Flying-Fox and *Xeromys myoides* – Water Mouse) and one avian species (*Hirundapus caudacutus* – White-throated Needletail). The habitat requirements of these species and their likelihood to utilise the site is discussed in **Section 4**.

However, the majority of the proposed works are located within highly modified cleared areas, and within the footprint of existing structures. Therefore, based on available mapping, data review, site inspection, it is considered **UNLIKELY** that the proposal will have a significant impact on a Matter of National Environmental Significance (MNES) and therefore will not require referral to the DAWE.

The complete EPBC Act Protected Matters Search record is attached in **Appendix A** of this report.



# 3.3 QUEENSLAND GOVERNMENT LEGISLATIVE, PLANNING AND POLICY OVERVIEW

The Queensland Government provides a framework of legislation to ensure the protection of Queensland's environment, land, water and natural resources.

#### 3.3.1 Biosecurity Act 2014

The Biosecurity Act 2014 is intended to control the spread of pest species, both plant and animal.

Under the Act, pests are declared as follows:

- Prohibited Matter a disease, exotic fish, insect pest, pest animal or a weed that is not found in Queensland. If it was to enter Queensland it would seriously impact our health, way of life, the economy, and the environment. If you find prohibited matter you must report it to Biosecurity Queensland within 24 hours.
- Restricted Matter can be an animal disease, virus or parasite, noxious fish, insects, pest animal or weed that is found in Queensland. Specific actions are required to be taken that limit the impact of this matter by reducing, controlling or containing it.

Pest animals classified as Restricted Matters commonly found in the Brisbane region include non-domestic Cats, Feral Deer (Rusa Deer, Red Deer and Fallow Deer), Feral Pig, European Red Fox, Wild dogs and Dingoes, Red-eared Slider Turtle, European Rabbit, Yellow Crazy Ant, and Fire Ant. It is noted that some animals, such as Cane Toads and Indian Mynas are non-declared pest species as they are already widespread and/or there are no effective control measures available. While there is no legal requirement for control of these pests, everyone has a General Biosecurity Obligation (GBO) to take reasonable and practical steps to minimise the risks associated with invasive pests under their control.

Should any Prohibited or Restricted weeds, or pests, be identified on site, they must be addressed in accordance with the above requirements of the *Biosecurity Act*. Invasive species recorded as part of this Detailed Ecological Assessment are outlined in **Section 4**.

In addition, the Department of Agriculture and Fisheries' Fire Ant Biosecurity Map outlines suburbs and localities which are in Biosecurity Zones for Red Imported Fire Ants. Upon review of the Fire Ant Biosecurity Map, the suburb of Ashgrove IS OUTSIDE Fire Ant Biosecurity Zone 1 or 2. Refer to Fire Ant Biosecurity Map in Appendix B. Therefore, the restrictions to fire ant carrier movements (*National Red Imported Fire Ant Eradication Program 2016*) do not apply.

#### 3.3.2 Nature Conservation Act 1992

The *Nature Conservation Act 1992 (NC Act*), is the legislative foundation for the protection of ecological values throughout Queensland, by way of conservation areas and national parks. Further, the *NC Act* also ensures that native fauna, and native flora are additionally protected outside of protected areas.

#### 3.3.2.1 Nature Conservation (Animals) Regulation 2020

The *Nature Conservation (Animals) Regulation 2020* is subordinate legislation under the *NC Act* that prescribes the protection status of fauna in Queensland. The Wildlife Online database search revealed *NC Act* listed species that have been identified within 1 km of the site since 1980. **Table A1 in Appendix A** 



summarises listed species identified in desktop searches and their potential presence within the development site. It is considered possible that some NC Act listed threatened fauna could utilise the site. Species that are not also listed under the EPBC that may occur in the areas of native vegetation on site include:

- Two avian species *Ninox strenua* (Vulnerable, Powerful Owl) and *Rhipidura rufifrons* (Special Least Concern, Rufous Fantail);
- Two mammal species *Tachyglossus aculeatus* (Special Least Concern, Short-beaked Echidna) and *Ornithorhynchus anatinus* (Special Least Concern, Platypus);
- One amphibian species *Adelotus brevis* (Vulnerable, Tusked Frog).

Section 4 further discusses the on-site habitat value for these species and Section 6 and Section 7 identifies and discusses potential impacts.

Breeding places for 'protected' animals are managed under the *Nature Conservation Act 1992*. Under the NCA, protected animals are any fauna listed as Critically Endangered, Endangered, Vulnerable, Near Threatened, Special Least Concern, and Least Concern species under the *Nature Conservation (Animals) Regulation 2020*. A Least Concern species is any native fauna species that is not Endangered, Vulnerable, Near Threatened, or, Special Least Concern.

Where interference with breeding places for native fauna may occur, for example through clearing, to manage impacts DES requires a Species Management Programme (SMP) to be submitted and approved in some circumstances. However, the clarification on the need to submit an SMP is provided on the DES guideline - *Information Sheet – Species Management Program – Requirements for tampering with a protected animal breeding place in Queensland.* Where the clearing is being undertaken with a licenced fauna spotter, with the appropriate current permit (Rehabilitation Permit) and a desktop survey has been undertaken, a SMP is not required.

It is an industry standard for clearing to be undertaken under the supervision of, and after an initial site assessment, by a fauna spotter. As a desktop survey has been undertaken as part of this ecological assessment, a SMP will not be required if the project engages a licenced fauna spotter. Further to this, any site with just a tree could be a breeding place for common fauna.

#### 3.3.2.2 Nature Conservation (Plants) Regulation 2020

The *Nature Conservation (Plants) Regulation 2020* is subordinate legislation under the NC Act that prescribes the protection status of flora and regulates the clearing of protected plants in Queensland. The Department of Environment and Science (DES) has incorporated a risk-based approach to requirements for Clearing Permits for removal of Protected Plants.

The site **IS MAPPED** with High-Risk Area for Protected Plants with a small incursion along the northern, southern and western boundaries, refer to **Figure 4**. All works are outside the High-Risk Area for Protected Plants mapping. If native vegetation is required to be cleared along the western boundary due to bushfire hazard than a Protected Plants survey will be required.



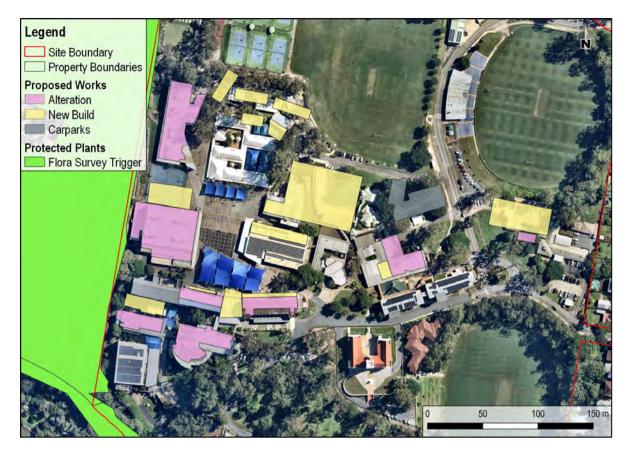


Figure 4. Protected Plants Flora Survey Trigger Map

#### 3.3.3 Planning Act 2016

The purpose of the *Planning Act 2016* is to establish an efficient, effective, transparent, integrated, coordinated and accountable system of land-use planning, development assessment and related matters that facilitate the achievement of ecological sustainability. Additionally, the subsequent *Planning Regulation 2017* supports the Act by outlining mechanisms for operation. Mechanisms within the regulation of particular note include:

- Development that is acceptable development and any requirements that apply for the development including exemptions for vegetation clearing; and
- Provides a framework to support the implementation of the *South East Queensland Koala Conservation Strategy 2020-2025*, through outlining categories of assessment and the assessment manager, and providing assessment benchmarks for development in South East Queensland.

#### 3.3.3.1 Planning Regulation 2017

In February 2020, the State Government implemented new Koala Habitat Mapping consisting of Core Koala Habitat Areas (KHA), Locally Refined Koala Habitat Areas (LRKHA) and Koala Habitat Restoration Areas (KHRA). In addition, the State has recognised Koala Priority Areas (KPA) which are large connected areas throughout SEQ which are identified as the most strategic locations for Prioritising Koala Conservation. With the exception of a limited number of exemptions (outlined, in *Schedule 24 - Dictionary*, under *Exempted Development*), development within KPAs mapped as KHA or LRKHA is considered Prohibited Development.



The Assessment Benchmarks for other development inside KPA or Identified Broad-Hectare areas are outlined in *Schedule 11* of the *Planning Regulation 2017*, with *State Code 25* of the State Development and Assessment Provisions, providing the Performance Outcomes for any development within KHA or LRKHA, but outside of the KPA (as outlined in *Schedule 10, Part 10 Section 16B*).

A search by Lot and Plan through DES concluded that the subject site:

- is outside Koala Priority Area;
- is **outside** Identified Koala Broad-Hectare Area; and
- **contains** Koala Habitat Area (core) mapping throughout the northern extent of the site and along the western boundary.
- contains Koala Habitat Area (locally refined) to the south of the site.

All proposed works are to be undertaken **outside** the mapped Koala Habitat Areas, as seen in **Figure 5**.

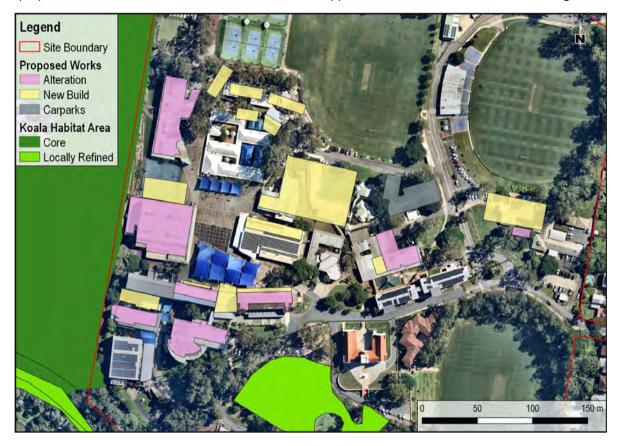


Figure 5. Koala Habitat Mapping

#### 3.3.4 Vegetation Management Act 1999

The Vegetation Management Act 1999 (VMA) and the Vegetation Management Framework Amendment Act 2013 protects vegetation on freehold land that is mapped as remnant by the Queensland Herbarium (QH). It provides a framework for the description, identification and mapping of Regulated Vegetation, Regional Ecosystems (REs) and Essential Habitat.

REs are assigned a conservation status under the VMA as well as a biodiversity status by the DNRME. The DNRME also uses Essential Habitat Mapping to regulate the clearing of remnant vegetation that is important



to endangered, vulnerable and near threatened (EVNT) species and is mapped in locations that contain associated RE's or where an EVNT species has been recorded in the past. Current RE Mapping indicates that the site contains both Category B (remnant vegetation) and Category X (non-remnant). Within the site, the northern and western most extent as well as an area to the south are mapped as Category B. The northern remnant RE patch is mapped as 12.3.11/12.11.3. The western extent and southern patch are predominately mapped as 12.11.5. with a small area of 12.3.7 and 12.3.11. The small areas of RE 12.3.11 are classed as Of Concern, the remaining remnant Regional Ecosystem's mapped inside the site boundary are classed as Least Concern, refer to **Table 3** and **Figure 6**.

All of the proposed works will be undertaken inside Category X mapping, with the exception of alterations and building to the south-west "Music Annexe", refer to Figure 6. Clearing of Category X vegetation on Freehold land is considered exempt under Part 2 of Schedule 21 of the Planning Regulation 2017, as is clearing Category B Of Concern mapped vegetation for an urban purpose in an urban area. Site investigations also revealed that this area is erroneously mapped as the proposed footprint is within areas that are cleared, landscaped or within that of existing buildings.

Table 3. Regional Ecosystems

Regional Ecosystem	VMA Status	Category	Area (Ha)	Description
12.11.3	Least Concern	В	0.67	Eucalyptus siderophloia, E. propinqua +/- E. microcorys, Lophostemon confertus, Corymbia intermedia, E. acmenoides open forest on metamorphics +/- interbedded volcanics
12.11.5	Least Concern	В	1.76	Corymbia citriodora subsp. Variegate woodland to open forest +/-Eucalyptus siderophloia/E. crebra, E. carnea, E. acmenoides, E. propinqua on metamorphics +/- interbedded volcanics
12.3.11	Of Concern	В	0.08	Eucalyptus tereticornis +/- Eucalyptus siderophloia, Corymbia intermedia open forest on alluvial plains usually near coast
12.3.7	Least Concern	В	0.13	Eucalyptus tereticornis, Casuarina cunninghamiana subsp. cunninghamiana +/- Melaleuca spp. fringing woodland
Non- remnant	None	X	16.91	N/A



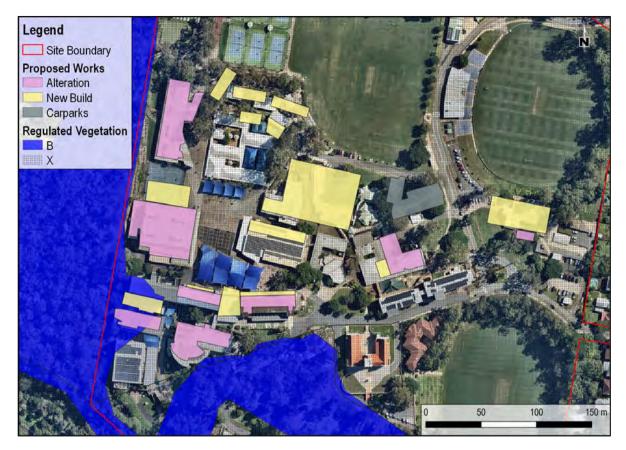


Figure 6. Regulated Vegetation Mapping

### 3.3.5 State Planning Policy 2017

The *State Planning Policy* (SPP) provides local governments with guidance on a variety of State Interests and how they are to be dealt with in local planning schemes.

S5 Environmental acknowledges that the SPP has been appropriately reflected in the local planning scheme with regards to Biodiversity and Bushfire. However, as the Local Government is not the assessment manager, an assessment against *Part E: State Interest Policies and Assessment Benchmarks of the SPP (2017)* in relation to Bushfire and Biodiversity will be required. Bushfire is outside the scope of this report and will be addressed in S5 Environmental's corresponding *Bushfire Hazard Assessment and Management Plan* (S521036BF001). The relevant SPP Maps are enclosed in **Appendix B** of this report.

The site is mapped as containing the following ecological relevant layers:

#### Biodiversity:

- MSES Wildlife Habitat (Endangered or Vulnerable);
- MSES Wildlife Habitat (Special Least Concern animal);
- MSES Wildlife Habitat (Koala Habitat Area Core);
- MSES Wildlife Habitat (Koala Habitat Areas Locally Refined);
- MSES Regulated Vegetation (Category B); and
- MSES Regulated Vegetation (Essential Habitat).



- Natural Hazards Risk and Resilience:
  - Bushfire Prone Area

Refer to **Section 6.2.2** and **Section 6.3.2** for a discussion on how the proposal meets the requirements of the SPP.

#### 3.4 LOCAL LEGISLATIVE OVERVIEW

#### 3.4.1 City Plan 2014

While the proposed development will not be assessed by BCC under the *City Plan 2014*, it is understood the proponent is required by the State under a MID to address and have consideration for the intent of the relevant overlays.

Under *City Plan 2014*, the site is zoned as Community Facilities Education Purposes (CF5). The purpose of the CF Zone Code is to provide for community related activities and facilities whether under public or private ownership. These may include:

- Provision of municipal services;
- Public utilities:
- Government installations;
- Hospitals and schools;
- Transport and telecommunication networks; and
- Community infrastructure of an artistic, social or cultural nature.

BCC Overlay mapping relating to ecological matters under the current plan include:

- Biodiversity Areas Overlay; and
- Waterway Corridor Overlay.

The site is also mapped under the Bushfire Hazard Overlay. Refer S5 Environmental's corresponding *Bushfire Hazard Assessment and Management Plan* (S521036BF001, refer **Appendix C**) for further information and assessment. Bushfire matters are not addressed further within this Ecological report, however, it should be noted the Bushfire Management Plan does not require any clearing of vegetation in the Biodiversity Areas or Waterway Corridors Overlays for bushfire hazard mitigation. The relevant Overlays are outlined in **Section 3.4.1.1 - Section 3.4.1.2** below. Please note, other non-ecological overlays may also apply to the site but are not addressed by this report.

#### 3.4.1.1 BCC Biodiversity Areas Overlay Code

S5 Environmental understands that the purpose of the *Biodiversity Areas Overlay Code* is for the conservation, consolidation, connection and restoration of the network of lands with biodiversity values within Brisbane and that it is the intention of the *City Plan 2014* to retain vegetation community connectivity where possible within those areas mapped by the Biodiversity Areas Overlay.

Under the Biodiversity Areas Overlay, the site contains mapped High Ecological Significance (HES) and a small area of mapped High Ecological Significance Strategic (HESS), however no proposed works occur



within these mapped areas. The Biodiversity Areas Overlay also maps MSES area, over the same areas as the Regulated Vegetation mapping. The BCC Biodiversity Area Overlay mapping over the site is illustrated in **Figure 7**.

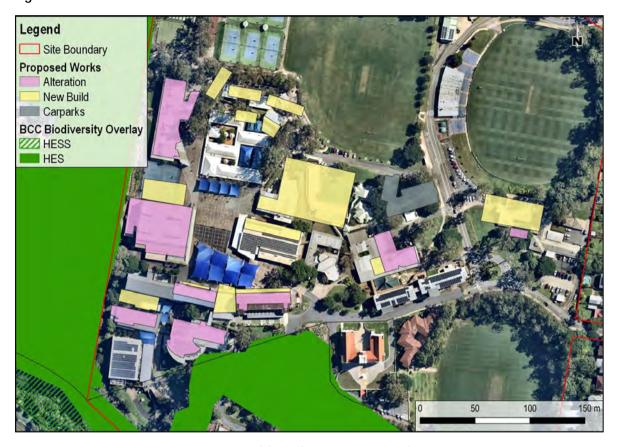


Figure 7. BCC Biodiversity Area Overlay

#### 3.4.1.2 BCC Waterway Corridors Overlay Code

S5 Environmental understands that the purpose of the *Waterway Corridors Overlay Code* is to maintain and enhance waterway health values of a waterway corridor. The site is mapped as containing a City-wide Waterway Corridor and Local Waterway Corridor. The City-Wide Corridor, Enoggera Creek, is mapped along the southern edge of the site, with the Local Corridor mapped along the northern extent of the site, refer to **Figure 8**. These small Local Corridors are unnamed. In relation to ecological matters, Performance Outcome (PO) 9 seeks to avoid the removal of native and riparian vegetation from the Brisbane River Corridor and PO10 seeks the protection and enhancement of the values and functions of a Local and City-wide Waterway Corridor including riparian vegetation and wildlife connectivity. All proposed works are outside the mapped Local and the City-wide Waterway Corridors.



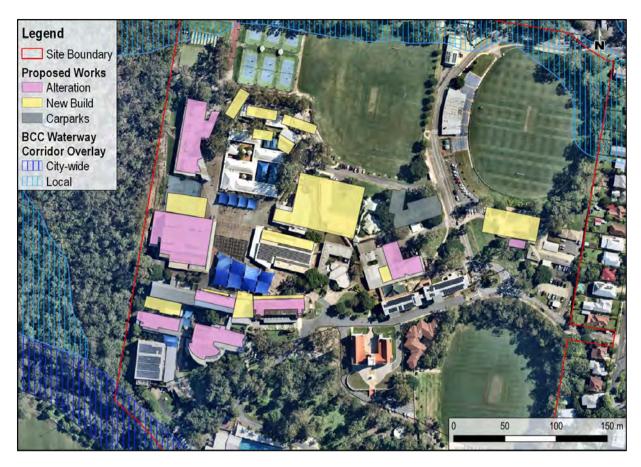


Figure 8. BCC Waterway Corridors

#### 3.4.2 Natural Assets Local Law 2003

*Natural Assets Local Law 2003* (NALL) defines four categories of protected vegetation. These categories identify the type of vegetation protected and the location of the vegetation:

- Council Vegetation;
- Waterway and Wetland Vegetation;
- Significant Native Vegetation; and
- Significant Urban Vegetation.

The site **IS MAPPED** as containing three NALL categories: The entire site is mapped as containing Significant Native Vegetation (SNV) and/or Significant Urban Vegetation (SUV). Waterway and Wetland Vegetation (WWV) is mapped consistent with the Waterway Corridor Overlay, (refer to **NALL Mapping** in **Appendix D**).

#### 3.4.2.1 Significant Native Vegetation (SNV)

BCC defines the SNV category under the NALL as:

- Vegetation that has ecological value and provides important habitat or is a food source for wildlife;
- Species of native plants that are unique to the region and state, species such as Hoop Pines (Araucaria cunninghamii);



- Trees, shrubs, groundcovers and vines, located in particular areas, including dead vegetative material that provide important habitat for wildlife; and
- Native vegetation communities such as Melaleuca wetlands and rainforests that provide unique and valuable habitat for fauna species.

Accordingly, all native vegetation on the site is protected under the SNV category. This includes native trees, shrubs, vines, groundcovers and grasses, as well as dead vegetation material such as logs which may provide habitat to native wildlife. As native vegetation is proposed to be removed, an 'Application to Carry out Works (including interfering with) on Protected Vegetation' (NALL Permit) will be required prior to any clearing works.

#### 3.4.2.2 Significant Urban Vegetation (SUV)

BCC defines the SUV category under the NALL as significant vegetation that is generally mature native or exotic vegetation including individual trees or groups of trees that:

- Are protected by an existing Council issued Vegetation Protection Order Individual Tree (VPO-IT) or Vegetation Protection Order Group of Trees (VPO-GT); or
- are listed or mapped in the SLT Overlay code of the Planning Scheme, the SLT Overlay map in the Planning Scheme; or
- are a specific species and size (listed in *Schedule 2* of the *Natural Assets Local Law 2003*) and located in the Emerging Community (EC) Zone of the Planning Scheme.

Accordingly, all SUV category vegetation on site is protected. As SUV mapped vegetation is proposed to be removed throughout the site, an 'Application to Carry out Works (including interfering with) on Protected Vegetation' (NALL Permit) will be required prior to any clearing works.

#### 3.4.2.3 Waterways and Wetland Vegetation (WWV)

BCC defines the WWV category under the NALL as all vegetation in mapped wetlands and waterways, other than pest vegetation as defined by the NALL. Waterways and Wetlands associated with WWV do not have to contain water and can be natural or man-made. The site is mapped as containing patches of WWV, therefore if vegetation is to be pruned or removed within the mapped WWV, you may need to apply for an 'Application to Carry out Works (including interfering with) on Protected Vegetation' (NALL Permit).



# 4.0 Vegetation and Habitat Assessment

An assessment of the vegetation including native flora and weed presence, and habitat opportunities within the site, focusing on the areas of proposed works, has been completed, the range of vegetation across the site has been classified as one community, described in **Section 4**.

Site habitats, within and adjacent the areas of proposed works, were assessed to determine their value for native fauna species, including significant and threatened species. Particular attention was given to habitat features including:

- The presence of hollows, fissures and tubes in mature trees suitable as nesting/roosting sites, as well as arboreal and ground-based nests, dreys or burrows;
- The presence of significant habitat trees;
- The presence of arboreal fauna, scratch markings, orts and scats;
- The presence of characteristic feeding signs, for example, diggings (terrestrial mammals), and sap feeding scars on eucalypts (Gliders);
- The presence/abundance of dense vegetation, logs, leaf litter and fallen timber; (small bush birds and reptiles);
- Floristic diversity, including diversity and abundance of fruiting and flowering species; and
- Vegetation connectivity.

A nocturnal fauna assessment has not been performed as part of this assessment (assessment methodology is summarised is **Section 2.0**). During the detailed site inspection, a range of habitat was observed within the site as described below.

A detailed amphibian survey has not been undertaken at this stage; only opportunistic observations were made during the field inspection. The habitat requirements of most species of native amphibian are unlikely to be determined by forest cover or floristics but are more strongly influenced by factors such as climatic and seasonal variation, distance to water bodies, riparian vegetation structure, hydrological and morphological characteristics of water bodies and the availability of suitable micro-habitat for aestivation and shelter.

Flora observed within the site during the assessment were recorded. Refer to **Section 4.2** for the complete species lists.

# 4.1 Vegetation Community 1

All vegetation within the vicinity of the development footprint has been considered as one Vegetation Community (VC). Large canopy trees were present across the site, with species being consistent with the pre-clear RE 12.11.5 *Corymbia citriodora subsp. variegata woodland to open forest +/- Eucalyptus siderophloia/E. crebra, E. carnea, E. acmenoides, E. propinqua on metamorphics +/- interbedded volcanics.* Vegetation present in the proposed development areas has been highly modified or landscaped and predominately consisted of large remnant eucalypts, or planted specimens, within hardstand areas or turfed grounds. In general, few shrubs or understorey plants were present. A brief description of the vegetation present within the footprint of the proposed new buildings, refer to **Figure 9**, is provided below with assigned 'Areas' for reference purposes.





Figure 9. Proposed Development Vegetation and Habitat Investigation Areas (Blue line- hardstand; Green line- Canopy trees; Red line- weeds/planted shrubs)

The proposed new buildings of Areas B, D, E and G, indicated in yellow above, are in predominately hardstand areas that have minimal vegetation, with the exception of few planted shrubs and pines.

Area C contains planted *Melaleuca viminalis* over bare ground, refer **Plate 1**, as well as a combination of natives including *Macaranga tanarius* (Macaranga), *Lophostemon confertus* (Brush Box) and *Mallotus discolour* (Yellow Kamala), and exotics *Celtis sinensis* (Chinese Celtis) and *Koelreuteria paniculata* (Golden Rain Tree), with exotic weedy understorey on the slope to the west, refer **Plate 2**.





Plate 1. Planted Melaleuca viminalis in Area C



Plate 2. Macaranga tanarius and weedy understory to the west of Area C

The development footprint of areas A, F, H and I all have large remnant canopy species within their immediate vicinity. Area F is largely turfed and contains a central drain with few trees along the exterior of the footprint, **Plate 3**.





Plate 3. Large Eucalyptus tereticornis along the exterior of the proposed carpark (Area F)

Area G has a number of large remnant eucalypt trees including *Corymbia citriodora subsp. variegata* and *Eucalyptus tereticornis*, as well as planted trees, *Cupaniopsis anacardioides*, and *Harpullia pendula*, surrounding existing buildings with a predominately turfed understorey, **Plate 4**.



Plate 4. Large Corymbia citriodora and planted trees south of the proposed building in Area G

Lastly, Area A, which incorporated the proposed primary school buildings, is dominated by large *Corymbia citriodora subsp. variegata* (Spotted Gum) and garden beds between existing buildings and a dirt road, **Plate 5** and **Plate 6**.





Plate 5. Dirt road and C. citriodora in the northern extent of Area A



Plate 6. Large C. citriodora trees and garden beds between existing buildings in Area A



Table 4. Community 1: Vegetation and Habitat Assessment

Feature	Description
Vegetation	Vegetation lacked complexity with all buildings proposed in highly altered areas that incorporated a combination of planted trees among large remnant eucalypts in hardstand or turfed area. Generally, few weeds were present within the site, with most observed along the site's border within Area C, Figure 9. Table 5 includes a species list of native plants and Table 6 a species list of exotic plants, identified within the proposed areas of development.
	The VC showed varying levels of habitat. The scattered canopy is likely to provide habitat and foraging opportunities for arboreal and common generalist species such as Squirrel Gliders, possums, birds and bats. Hollows were observed in several large eucalypts, including of particular note, a large <i>Corymbia citriodora subsp. variegata</i> within the development footprint of Area A (Primary School Buildings). This specimen had a nest in the upper branches and several Medium to Large hollows, two of which were being utilised by nesting <i>Cacatua galerita</i> (Sulphurcrested Cockatoo) and <i>Trichoglossus moluccanus</i> (Rainbow Lorikeet), refer to <b>Plate 7</b> .  Vegetation on site mostly lacked a mid-storey and understorey, though areas with short grass
	likely provide additional foraging opportunities for common birds such as <i>Cracticus tibicen</i> (Australian Magpie).  No aquatic habitat was present within or adjacent the areas of proposed works.
Habitat	
	Plate 7. A large <i>C. citriodora</i> within the development footprint with nesting Sulphur-Crested Cockatoo and Rainbow Lorikeet.
Threatened Species	<ul> <li>Potential for Hirundapus caudacutus (White-throated Needletail) to utilise airspace for foraging.</li> <li>Low potential for Petauroides volans subsp. volans (Southern Greater Glider) and Phascolarctos cinereus (Koala) to utilize the site intermittently. Sufficient denning</li> </ul>



Feature	Description
	<ul> <li>habitat for Southern Greater Glider is not present within the site, though some low value foraging habitat is present. Koala habitat trees are present within Areas A, F, H and I, of which area A, the Primary School Buildings, has the greatest connectivity to habitat west of the site. The constant disturbance from school activities may however deter these species, from moving into the site from surrounding habitat.</li> <li>Pteropus poliocephalus (Grey-Headed Flying-Fox) is likely to utilize the site for foraging, with the nearest known roost located within 4km at Herston, Enoggera Creek.</li> <li>Ninox strenua (Powerful Owl) has preference to open forest and woodlands. Potential to occasionally use VC1 for forgaging, especially given the presence of mature canopy and historical record (1994) within the Army Barracks. However, the highly modified school campus provides very limited habitat and only one record 1.6km to the west on Biomaps from 1994 suggests the school is not significant habitat for the species.</li> <li>Rhipidura rufifrons (Rufous Fantail) unlikely to be present in VC1 due to lack of rainforest and wet gullies within the area of proposed works.</li> <li>Potential habitat for Tachyglossus aculeatus (Echidna) on site but the lack of understorey within development areas make it unlikely to be present in VC1.</li> <li>Xeromys myoides (Water Mouse) and Adelotus brevis (Tusked Frog) may occasionally forage on site due to presence of waterways, however the proposed development areas are distanced well away from waterways and contain no breeding habitat.</li> </ul>

# 4.2 Species Lists

A range of species were observed within the site, including but not limited to:

- 25 native flora species (Table 5)
- 18 exotic flora species (Table 6)
- 11 native fauna species (Table 7)

# 4.2.1 Native Flora Species

Native flora and the community in which they occurred is listed below. No threatened flora species were recorded during the limited survey.

Table 5. Native Endemic Flora Species observed on site

Scientific Name	Common Name	Area A, F, H	Area B, D, E, G	Area C
Canopy and Sub-canopy				
Acacia concurrens	Black Wattle	✓		
Acacia disparrima	Hickory Wattle	✓		
Angophora leiocarpa	Rusty Gum	✓		



Scientific Name	Common Name	Area A, F, H	Area B, D, E, G	Area C
Araucaria cunninghamii	Hoop Pine		✓	
Casuarina glauca	Swamp She-oak	✓		
Corymbia citriodora	Spotted Gum	✓		
Corymbia intermedia	Pink Bloodwood	✓		
Cupaniopsis anacardioides	Tuckeroo	✓		
Eucalyptus microcorys	Tallowwood	✓		
Eucalyptus propinqua	Grey Gum	✓		
Eucalyptus siderophloia	Norther Grey Ironbark	✓		
Eucalyptus tereticornis	Queensland Blue Gum	✓		
Flindersia australis	Crow's Ash	✓		
Harpullia pendula	Tulipwood	✓		
Lophostemon confertus	Brush Box	✓		✓
Macaranga tanarius	Macaranga			✓
Mallotus discolour	Yellow Kamala			✓
Melaleuca styphelioides	Willow Bottlebrush		✓	
Syzygium leuhmannii	Small-leaved Lilly-pilly		✓	
	Shrub			
Banksia serrata	Old Man Banksia			✓
Grevillea sp.	Grevillea cultivar			✓
Melaleuca decora	White Feather Honeymyrtle	✓		
Melaleuca viminalis	Weeping Bottlebrush	✓		✓
	Ground-layer			
Cyperus gracilis	Slender Flat Sedge	✓		
Lomandra longifolia	Spiny headed Mat Rush	✓		



#### 4.2.2 Exotic Flora

A total of 18 exotic plant species were recorded during the site inspection, of which two are recognised by the State as being a risk to the area. A list of these exotic plant species is provided below.

In accordance with the *Biosecurity Act 2014* a person must not release Category 3 Restricted Invasive Plants into the environment, give away or sell as a plant or something infested with its seeds. The remaining weed species identified on site are considered to be non-restricted invasive weeds. These are plants which can disrupt native flora communities and ecosystems. There are no strict legislative requirements or restrictions on invasive weeds, however under the General Biosecurity Obligation, landholders must take all reasonable and practical steps to minimise the risks associated with invasive plants under their control.

Table 6. Non-native Flora Species Recorded on Site

Scientific Name	Common Name	Area A, F, H	Area B, D, E, G	Area C	State Category
Bidens pilosa	Cobbler's Peg			✓	
Celtis sinensis	Chinese celtis			✓	
Dolichandra unguis-cati	Cats Claw Creeper			✓	3
Russelia equisetiformis	Firecracker Plant	✓			
Ipomoea cairica	Mile-a-minute			✓	
Jacaranda mimosifolia	Jacaranda	✓			
Koelreuteria paniculata	Golden Rain Tree			✓	
Lantana montevidensis	Creeping Lantana	✓			
Libidibia ferrea	Leopard Tree	✓			
Megathyrsus maximus var. maximus	Guinea Grass			✓	
Ochna serrulata	Ochna			✓	
Platanus acerifolia	London Plane		✓		
Rivina humilis	Coral Berry			✓	
Sphagneticola trilobata	Singapore Daisy			✓	3
Stenotaphrum secundatum	Buffalo Grass	✓			
Strelitzia reginae	Bird of Paradise	✓			



Scientific Name	Common Name	Area A, F, H	Area B, D, E, G	Area C	State Category
Thunbergia alata	Black-eyed Susan			✓	
Tipuana tipu	Tipuana	✓			

#### 4.2.3 Exotic and Native Fauna

Eleven native fauna species, all of which are birds, were identified on site, refer to **Table 7** below. No threatened fauna species were recorded during the limited survey.

Table 7. Native and Exotic Fauna Species Recorded on Site

Scientific Name	Common Name	Native
Alectura lathami	Australian Brushturkey	✓
Cacatua galerita	Sulphur-crested Cockatoo	✓
Cacatua sanguinea	Little Corella	✓
Corvus orru	Torresian Crow	✓
Gymnorhina tibicen	Australian Magpie	✓
Hirundo neoxena	Welcome Swallow	✓
Plegadis falcinellus	Glossy Ibis	✓
Manorina melanocephala	Noisy Minor	✓
Trichoglossus chlorolepidotus	Scaly Breasted Lorikeet	✓
Trichoglossus moluccanus	Rainbow Lorikeet	✓
Vanellus miles	Masked Lapwing	✓



#### 5.0 ECOLOGICAL FUNCTION

Vegetation and ecological features within a site may serve to function on a number of levels. For instance, vegetation may offer local foraging resources to various fauna within the immediate vicinity of a site, whilst offering movement and regional foraging resources to more mobile and potentially migratory species. As such, when determining the ecological integrity and functionality of a site, it is prudent to analyse the site on a local, sub-regional and regional scale. This may also act to gauge a site's value to known populations of Critically Endangered, Endangered, Vulnerable and Near Threatened (EVNT) species which may occur within the locale.

# 5.1 Summary of Local Site Habitat Values

There were several large canopy trees throughout VC1 that contained visible hollows that provide habitat to a number of arboreal species. Tree's lacking hollows may still provide limited shelter, foraging and nesting opportunities for avifauna and common arboreal fauna such as possums, Black Fruit Bat (*Pteropus alecto*) and possibly gliders. Bird species such as the Australian Magpie and Masked Lapwing likely benefit from open turfed areas.

Terrestrial habitat was limited throughout the proposed development areas due to the highly modified landscape, typical of school grounds. Sheltering opportunities for terrestrial fauna was mainly limited to that provided by scattered garden beds and the surrounding waterways. There was no aquatic habitat mapped or observed within proposed development areas.

# 5.2 Biodiversity Corridors and Connectivity

Locally, the site likely facilitates fauna movement west-east along its southern boundary which aligns with Enoggera Creek. The Gallipoli Army Barracks directly west of the site supports remnant vegetation and adjoins on to Keperra Bushland. It is likely that large canopy trees within the school grounds, more specifically those along the western boundary, have potential to be utilised by mobile arboreal species that are present in vegetation west of the site.

At a regional level, the site is not located near a Biodiversity Corridor and at a larger scale, the site is not mapped within or near any State-Wide Corridors, refer to **Figure 9**.

# 5.3 Water Quality Buffering

The site does not contain State mapped Riparian Corridors, refer to **Figure 9** below, however local mapping (**Figure 6**) shows a Local Waterway to exist along the northern boundary of the site and a City-wide Corridor along the southern boundary of the site aligning with Enoggera Creek. The proposed development areas are centrally located within the site and should not impact these waterways if best practice stormwater management is undertaken.





Figure 10. Regional and State Biodiversity Corridors

# 6.0 Legislative Discussion

#### 6.1 Federal

The site is shown to have no constraints under Federal Legislation. Proposed works will not result in an impact to a TEC or Ramsar Wetlands. Five fauna species from the EPBC search were shown as having the potential of being located at the site; (*Hirundapus caucacudus* - White-throated Needletail, *Pteropus poliocephalus* - Grey-headed Flying Fox, *Petauroides volans var Volans* - Greater Glider, *Phascolarctos cinereus* – Koala and *Xeromys myoides* – Water Mouse). Based on available mapping, data review and site inspection, it is considered **UNLIKELY** that the proposal will have a significant impact on a Matter of National Environmental Significance (MNES) as the proposed development is located within highly modified areas and predominately within footprints of existing structures, and therefore will not require referral to the DAWE.

#### 6.2 State

No proposed works encroach into areas of MSES Biodiversity. However, it is understood a MID application is required to also assess impacts to MSES outside mapped areas under the SPP.

The proposed Masterplan works are largely located within cleared highly modified areas, setback from areas of ecological value. As such, the majority of MSES threatened species identified in the MSES Report are not applicable to the proposed development as the habitat for these species is not present within or adjacent to the area of proposed works (refer **Appendix A**, **Table A1**). Large eucalypts provide possible foraging habitat for Koala (*Phascolarctos cinereus*), Powerful Owl (*Ninox strenua*) and Southern Greater Glider (*Petauroides volans ssp. volans*). However, the lack of substantial habitat and the constant disturbances from school activities lowers the habitat value for these species. Eucalypts along the western extent, surrounding the Primary School, have greater connectivity to the vegetation just west of the site and have the greatest potential to be utilised by significant arboreal species. Eucalypts may also provide a possible foraging source to the Grey-headed Flying-Fox, however only 16 eucalypts are to be removed so any impact is likely to be extremely low.

The following provides a separate response to each of the SPP MSES- Biodiversity matters.

(1) Development is located in areas to avoid impacts on matters of national environmental significance and considered the requirements of the Environmental Protection and Biodiversity Conservation Act 1999.

As highlighted in **Section 6.1**, development avoids impacts on Matters of National Environmental Significance (MNES) with construction designed to clear minimal vegetation in a highly modified environment. There will be minimal impact on MNES (refer to **Section 3.2**).

(2) Matters of state environmental significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided, they are minimised.



The proposed buildings do not impact MSES mapped areas and, as discussed in **Section 4.1**, are unlikely to impact MSES listed species due to the highly modified nature of the site and its active use as school grounds. Adverse impacts will be minimal due to the current highly modified environment. Some trees may be removed for the carpark and Music Annexe, however these trees are predominately exotic or planted landscape trees. A few large eucalypts may be removed for the Primary School buildings. There are 24 trees to be removed, 16 are Koala habitat trees. It is recommended that 34 compensatory trees be planted in the areas identified in **Figure 11** below.

Table 8. Total NJKHT	Trees Remove	ed and Comp	ensatory	Planting
			,	J

NJKHT Species Utility Class (DES, 2020)	NJKHT Removed	Compensatory Planting Ratio	NJKHT to be planted	Rehabilitation area required @1 per 35m <sup>2</sup>
NJKHT- Higher	2	3:1	6	210m <sup>2</sup>
NJKHT- Medium	14	2:1	28	980m²
NJKHT- Lower	0	1:1	0	0m2



Figure 11. Areas proposed for compensatory planting in the north-western corner of the site.

(3) Matters of local environmental significance are identified and development is located in areas that avoid adverse impacts; where adverse impacts cannot be reasonably avoided, they are minimised.



The proposed buildings avoid development within mapped Waterway Corridors, Biodiversity Areas and predominately refrain from clearing native vegetation and should likely cause little disruption to the surrounding habitat.

(4) Ecological processes and connectivity is maintained or enhanced by avoiding fragmentation or matters of environmental significance.

Proposed works will have minimal impact on connectivity. Works are being undertaken in previously cleared areas and avoid the southern boundary which provides the greatest connectivity of vegetation east-to-west across the site and adjoins vegetation following Enoggera Creek.

(5) Viable koala populations in South East Queensland are protected by conserving and enhancing koala habitat extent and condition.

The footprint of the development is inside a previously cleared and highly modified environment. Several koala habitat trees are to be removed, those that are to be removed are located within a highly modified environment and are unlikely to support koalas. **Section 7.0** recommends compensatory planting of koala habitat trees along the northern extent of the school. This will improve the connectivity of the existing canopy in this area.

#### Other State Matters

No native vegetation is to be cleared within the Protected Plants Flora Survey Trigger Map so a Protected Plants survey will not be automatically required. Nor is native vegetation to be cleared within the mapped Koala Habitat Areas. An area of works is to occur in mapped Category B, least concern remnant vegetation. Vegetation here appears to have been planted, however, regardless to the potential inaccuracy of mapping, the removal of this vegetation is considered exempt under *Schedule 21*, *Part 2* of the *Planning Regulation 2017*.

#### 6.3 Local

#### 6.3.1 BCC Biodiversity Areas Overlay

As mentioned in **Section 3.4.1**, the site is mapped within BCC's Biodiversity Overlay area. However, no proposed works are within or encroaching on this Overlay area.

#### 6.3.2 BCC Waterway Corridors Overlay

Proposed works are well clear of the mapped Waterway Corridor Overlay at Enoggera Creek (City-Wide), and the local waterway corridor mapped to the north. Appropriate erosion and pollutant controls, such as sediment/pollutant fencing, should ensure waterways are unimpacted.

Refer to **Section 7** for recommendations for minimising erosion and pollutants during construction.



#### 6.3.3 Natural Assets Local Law

The requirements of the Natural Assets Local Law are applicable to the proposed development. These requirements can be fulfilled through submitting an Application to Carry Out Works on Protected Vegetation (NALL Permit) prior to undertaking clearing on the site.



# 7.0 POTENTIAL IMPACTS, RECOMMENDATIONS AND MITIGATION MEASURES

**Table 9** below, outlines potential impacts, recommendations and mitigation measures for the site.

Table 9. Potential Impacts, Recommendations and Mitigation Measures

#### POTENTIAL IMPACTS

#### RECOMMENDATIONS AND MITIGATION MEASURES

#### FLORA, FAUNA, HABITAT VALUE AND FUNCTIONALITY

- The removal of vegetation within the site will reduce foraging
   and habitat resources to fauna species.
- The development footprint is predominantly within the historically cleared and modified areas of the site, though some vegetation is proposed to be removed. While the vegetation proposed to be removed is within disturbed and non-remnant areas, it likely still provides a limited level of habitat and foraging opportunities for common fauna:
  - It is recommended that building layout and design be tailored so that large koala habitat trees be retained and, where this is not possible, compensatory planting be undertaken. It is recommended that 34 Koala Habitat Trees are to be planted along the northern extent of the site where there are gaps in the existing canopy.
  - Detailed design responds to the location of Tree Protection Zones and incorporates design and construction methodologies to maximise native tree retention, particularly trees number 1, 61 and 74, refer to the Vegetation Retention plan S521036\_VRP\_001.



# POTENTIAL IMPACTS RECOMMENDATIONS AND MITIGATION MEASURES Design Details and Objectives includes: • Fauna injuries and fatalities have the potential to occur during vegetation clearing works on the site and construction works. Design Details and Objectives includes: • A Queensland Government qualified Fauna Spotter/Catcher must be commissioned to undertake fauna spotter/catching works during any clearing works; • If any animals are identified in trees to be removed during clearing operations, work shall cease immediately

- on that tree. The Fauna Spotter must supervise the relocation of any identified animal prior to clearing operations recommencing;
- Any injured fauna resulting from clearing works are to be handled only by the qualified Fauna Spotter/Catcher and taken to a veterinary clinic or registered wildlife carer.
- A suitably qualified Arboricultural consultant ('arborist') (minimum AQF Level 5 Diploma in Arboriculture) must be present on site during all works directing civil works; and
- Any necessary pruning, tree surgery and other maintenance works to maintain health and stability of any
  trees to be retained, and to reduce potential hazards for site users, to be overseen by the arborist.
- Prepare a Koala Construction Management Plan to help demonstrate how the proposed development avoids impacts upon koalas.

#### **INVASIVE AND EXOTIC FLORA**

- Disturbance works associated with earthworks may act as a dispersal mechanism to encourage weed dispersal to adjacent sites which may further encourage existing exotic species to proliferate.
- The vegetation within the surrounds of Area C, the Music Annexe building, particularly along the western boundary, exhibits varying levels of weed incursion, with higher levels at the edges. It is recommended that weed removal be undertaken in these areas, and appropriate weed control measures undertaken during construction.



POTENTIAL IMPACTS	RECOMMENDATIONS AND MITIGATION MEASURES
STATE PERMITS AND APPROVALS (Environmental)	
<ul> <li>Protected Plants</li> </ul>	All works are outside the High-Risk Area for Protected Plants mapping.
Koala Habitat Area	• All works in the Masterplan are outside KHA mapping. However, koala habitat trees are proposed to be removed. It is recommended that building layout and design be tailored so that large koala habitat trees be retained and, where this is not possible, compensatory planting be undertaken.



#### RECOMMENDATIONS AND MITIGATION MEASURES

#### STORMWATER, POLLUTANTS AND EROSION

- Unmanaged site stormwater runoff during construction may carry sediment and pollutants into the local stormwater networks, which may bring about deterioration in water quality. This may, in turn, adversely affect the health of flora and habitat value to local fauna.
- It is recommended that appropriate sediment and erosion controls are in place prior to and during construction works;
  - Runoff from the site during the construction phase of the development should be managed. During the
    construction phase, this will entail the development of and adherence to erosion control procedures which will
    locate and describe measures to ensure that sediments do not leave the site and degrade the receiving
    environment;
  - Any fill introduced to the site should be certified as clean and free from contaminants;
  - With appropriate control measures in place, impacts upon downstream waterways are expected to be negligible;
     and
  - It is recommended that all measures outlined in the Stormwater Management Plan are incorporated.



#### 8.0 CONCLUSIONS

A detailed Ecological Assessment was conducted at Marist College, located at 182 Frasers Rd, Ashgrove. This report investigated the ecological values, features and functionality of the site and applicable ecological and legislative constraints. The site is located within the Brisbane City Council Local Government Area and is zoned as Community Facilities (Education Purposes), under the *City Plan 2014*.

The proposed works are largely located in highly modified environments that were predominantly devoid of naturally occurring vegetation and comprised of manicured lawns, historically cleared areas, existing buildings and sparsely planted trees and shrubs. The greatest areas of ecological value were observed in Areas A, F, H and I, where large koala habitat trees are present in the vicinity of the proposed buildings. 16 trees are proposed to be removed. It is recommended the building layout is tailored to retain these large canopy species.

The proposed works will not have a significant impact on MNES and are unconstrained at the Federal Level. No proposed works encroach into areas of MSES Biodiversity. However, it is understood a MID application is required to also assess impacts to MSES outside mapped areas under the SPP. The proposed development will involve the removal of 16 Non-juvenile Koala Habitat Trees. A corridor of vegetation currently exists along the northern boundary of the site, which connects to the broader vegetation that exists west of the school. It is recommended that compensatory planting for the removal of Koala Habitat Trees be undertaken along this northern boundary.

At the local level, the site is mapped under the Brisbane City Council's *City Plan 2014* as containing areas of Biodiversity Overlays mapping and Waterway Corridors mapping. It is S5 Environmental's understanding that the proposal does not require assessment against the *City Plan 2014* but should give consideration to the intent of planning overlays. Regardless, it is S5 Environmental's understanding that no works are proposed within the HES, HESS mapped areas in the Biodiversity Areas Overlay, nor within a Waterway Corridor in the Waterway Corridors Overlay.

With the incorporation and implementation of recommendations identified in Section 6 and Section 7, S5 Environmental believe the ecological impacts by the proposed Masterplan will be minor and can be adequately mitigated.



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## **APPENDIX A**

### Database Searches

- Table A1. Threatened and Significant Flora and Fauna Species
- EPBC Protected Matters Report
- Wildlife Online Search
- MSES Report



## Table A1. Threatened and Significant Flora and Fauna Species known to occur or likely to occur as Identified by EPBC, MSES, and Wildlife Online Database Searches

Habitat information summarised from each species' EPBC SPRAT, unless otherwise specified.

Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
					BIRDS		
Anthochaera phrygia	Regent Honeyeater	CE	E	PMST	Mostly inhabits inland slopes of the Great Dividing Range. In QLD, breeding occurs regularly west of Warwick. Found in dry eucalypt woodland and open forest, rural and urban areas with mature eucalypts.		Low
Botaurus poiciloptilus	Australasian Bittern	E	E	MSES	Favours permanent freshwater wetlands with tall, dense vegetation. In SEQ habitat remains in pockets including Redlands and North Stradbroke Island.	·	Low
Calyptorhynchus Iathami	Glossy black cockatoo	E	V	MSES	Open forest and woodlands of the coast and the Great Dividing Range up to 1000 m in which stands of she-oak species, particularly Black She-oak (Allocasuarina littoralis), Forest She-oak (A. torulosa) or Drooping Sheoak (A. verticillata).	No records within 1km of site on Wildlife Online since 1980.  No records within 1km of site on Wildlife Online since 1980. Habitat not present on site.	Low



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
Casuarius casuarius johnsonii	Sthn population cassowary	V	E	MSES	Occurs primarily in rainforest, as well as woodland, swamp and disturbed habitats for a year-round supply of fleshy fruits. It occurs in three broad populations. In the Wet Tropics it is distributed widely from Cooktown to just north of Townsville. Core habitat is coastal lowlands between Ingham and Mossman, and uplands in the southern Atherton Tablelands and other ranges.	Well outside known range, no habitat present.	N/A
Erythrotriorchis radiatus	Red Goshawk	V	E	PMST	Rare in forests and woodlands in north-eastern and northern Australia.	Possibly functionally extent in SE Qld. No confirmed recorded sightings within 1km of the site since 1980.	Low
Falco hypoleucos	Grey Falcon	V		PMST	Usually restricted to shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast. Also occurs near wetlands where surface water attracts prey.		Low
Hirundapus caudacutus	White-throated Needletail	V	SLC	PMST	Found from 1 m-1000 m in open forest, heathland, and rainforest, however rarely seen above woodland and treeless areas such as grassland or swamps. Breeds in Siberia, east China and Japan, and enters Australia from September to October.	unconfirmed recorded sightings within 2km since	Low - Moderate
Lathamus discolor	Swift Parrot	CE	E	PMST, MSES	Breeding in Tasmania from Sep-Feb; winter nomadic visitor to sclerophyll forests and woodlands in south-east Queensland to South Australia.		Low



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
Ninox strenua	Powerful owl		V	MSES	Woodland and open sclerophyll forest to tall open wet forest and rainforest.	ALA has seven listed sightings within 2km of site since 2013. Likely to be within the vicinity of site.	Moderate
Pezoporus wallicus wallicus	Eastern ground parrot		V	MSES	It occurs mostly in coastal heathland or sedgeland with very dense cover and a high density of the parrot's food plants		Low
Rhipidura rufifrons	Rufous Fantail	М	SLC	ALA, PMST	Common migrant or resident in rainforest and forests along eastern portion of Australia.	One sighting within 2km of the site since 1980.	Low - Moderate
Rostratula australis	Australian Painted Snipe	E	V	PMST	Uncommon to rare nomad in marshes, mainly in northern and eastern Australia and Tasmania. Usually found in well vegetated edges of wetlands and dams.		Low
Symposiachrus trivirgatus	Spectacled Monarch		SLC	ALA	Lower storey of rainforest and damp thick forests particularly gullies.	The site lacks suitable habitat. One sighting within 2km of the site.	Low
Turnix melanogaster	Black-breasted Button-quail	V	V	PMST	Restricted to rainforests and forests, mostly in areas with 770-1200 mm rainfall per annum. They prefer drier low closed forests, particularly semi-evergreen vine thicket, low microphyll vine forest, <i>Araucarian microphyll</i> vine forest and <i>Araucarian notophyll</i> vine forest. They may also be found in low, dense acacia thickets and, in littoral area, in vegetation behind sand dunes.		Low

LISTED MIGRATORY TERRESTRIAL AND WETLAND BIRDS (NOT PREVIOUSLY LISTED)



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
Apus pacificus	Fork-tailed Swift	М		PMST	Common migrant, throughout mainland Australia, mostly west of divide.	Site lacks suitable habitat, no sightings within 1km since 1980.	Low
Cuculus optatus	Oriental Cuckoo	M		PMST	Forest, Monsoon forests; wet sclerophyll forests; paperbark swamps; mangroves. Northern and eastern Australia; Non breeding migrant.		Low
Gallinago hardwickii	Latham's Snipe	M		EPBC	Common migrant from Japan and Kuril to eastern and Tasmanian swamps and wet grasslands.	Habitat not present on site.	Low
Monarcha melanopsi	Black-faced Monarch	M	SLC	PMST	Rainforest, sclerophyll forest and woodland in dense gullies in eastern, coastal Australia.	Gullies not present, not high quality habitat.	Low
Monarcha trivirgatus	Spectacled Monarch	М		PMST	Lower storey of rainforest and damp thick forest, especially in gullies.	Gullies not present, not high quality habitat, zero sightings.	Low
Myiagra cyanoleuca	Satin Flycatcher	M		PMST	Uncommon migrant along eastern Australia. Found in thick gullies.	Gullies not present, not high quality habitat, zero sightings.	Low
Pandion cristatus	Eastern Osprey	М	SLC	PMST	Found in all states and territories. The range is a narrow strip at the coast and offshore islands, although it is occasionally found at open river systems and beyond tidal plains. Visits to inland regions from the north during the wet season may occur in years of heavier rainfall (Debus, Stephen J. S., 2012)	, and the second	Low
Tringa nebularia	Common Greenshank	M		PMST	The Common Greenshank does not breed in Australia, however, the species occurs in all types of wetlands and has the widest distribution of any shorebird in Australia (Higgins & Davies 1996).		Low



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
FROGS							
Adelotus brevis	Tusked frog			WO, MSES	Inhabits wet eucalypt forest, rainforest and sometimes dry eucalypt forest, where it can be found in close proximity to suitable breeding habitat such as ponds and slow-moving sections of streams	Some waterways mapped on site presence is	Moderate
Crinia tinnula	Wallum Froglet		V	MSES	Found in acidic wetlands (pH 4.3-5.2) within Melaleuca swamps, sedgeland, wet or dry heathland and wallum/woodland areas in the sandy coastal lowlands (<100m above sea level) of south-east Queensland.	it is unlikely that this species is present. No	Low
Litoria freycineti	Wallum rocketfrog		V	MSES	Freshwater, acidic swamps and lagoons, sandy and alluvial substrates, dominated by Banksia or Eucalyptus woodlands in areas of south-east Qld.	•	Low
Litoria olongburensis	Wallum sedgefrog	V	V	MSES	Typically sedgeland, Banksia and Melaleuca woodland in sandy coastal areas of south-east Qld. Common in/around ephemeral acid swamps.	·	Low
Taudactylus pleione	Kroombit tinkerfrog		Е	MSES	Montane specialist, endemic to the Wet Tropics Bioregion occurring along rocky streams in upland rainforest. It is usually found under rocks and logs beside fast-flowing streams and prefers seepage and trickle areas near streams.	that this species is present. No records within	N/A
	INSECTS						



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence	
Argynnis hyperbius inconstans	Australian Fritillary	CE	E	PMST	Found in scattered locations across south-eastern Qld and north-eastern NSW and known from Gympie and Port Macquarie areas. Restricted to areas where its larval food plant, <i>Viola betonicifolia</i> occurs and usually occurs around river estuaries or open swampy coastal regions.	groundlayer species and habitat for Viola betonicifolia. No records within 1km of the site	Low	
	MAMMALS							
Dasyurus hallucatus	Northern Quoll	E		PMST	The Northern Quoll occupies a diversity of habitats across its range which includes rocky areas, eucalypt forest and woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert. Habitat generally encompasses some form of rocky area for denning purposes with surrounding vegetated habitats used for foraging and dispersal.	,	Low	
Dasyurus maculatus maculatus (SE Mainland Population)	Spotted-tailed Quoll	E	V	PMST	Generally occurs in densely vegetated areas including wet eucalypt forest and rainforest. Probably extinct around Brisbane area.	The development footprint does not have the sufficient habitat requirements to support the species, unlikely to be present. No records within 1km of the site since 1980.	Low	
Ornithorhynchus anatinus	Platypus		SLC	MSES	Generally live in rivers east of the Great Dividing Range, and are also found in some western-flowing streams. Borrow in river banks near freshwater creeks, slow-moving rivers, lakes joined by rivers, and built water storages such as farm dams.	potential habitat for the species. ALA sightings	Medium	



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
Petauroides volans	Greater Glider	V		PMST, MSES	Occur down the east coast of Australia. Wide range of habitats including tall open woodland, eucalypt forests and low woodlands. Feed mainly on eucalypt leaves and prefer the presence of plentiful hollows.	Habitat is present on site, however it is highly disturbed and there have been no recorded sightings within 1km of the site since 1980.	Low - Moderate
Petaurus gracilis	Mahogany Glider		E	MSES	Restricted to the southern Wet Tropics of north Queensland, from the Hull River (east of Tully) south to Ollera Creek, south-east of Ingham, and extending inland about 100km. Occurring in habitat below 120m elevation, mahogany gliders are highly mobile and dependent on continuous open forest or woodland to range freely.	Well outside known range, no habitat present	N/A
Petrogale persephone	Proserpine rock-wallaby		Е	MSES	Prefers rocky outcrops, rock piles and cliffs within a microphyll/notophyll semi-deciduous dry vine forest. On Gloucester Island National Park the habitat includes rocky outcrops and rock piles covered with dry vine scrub, usually associated with beach scrub (EPBC)	Well outside known range, no habitat present	N/A
Phascolarctos cinereus (SEQ bioregion)	Koala	V	V	PMST, WO, MSES	Eucalypt forests in eastern QLD, NSW and VIC.	Habitat present on site. Five records within 1km of site since 1980.	Moderate
Pteropus poliocephalus	Grey-Headed Flying- Fox	V	-	PMST, WO	Camps located near water around coastal eastern Australia.	One recorded sightings by Wildlife Online within 1km of the site since 1980. Suitable foraging habitat present on site.	Moderate



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence	
Tachyglossus aculeatus	Short-beaked Echidna		SLC	MSES	Inhabit a wide range of terrestrial habitats wherever there are enough ants or termites: including desert, rainforest, open forest, bushland, farmland, suburban backyards in leaf litter.	1 sighting on the Ashgrove sports ground, 3 more	Moderate	
Xeromys myoides	Water Mouse	V	V	MSES	Typically occurs in coast saltmarsh, mangroves and adjacent freshwater wetland habitats. Known to occur in south-east Queensland. Constructed nesting mounds and natural or artificial hollows located close to or above the high tide mark, are used for shelter during the day and between tidal cycles.	Watercourses present to site's exterior however species unlikely to be present. No records within	Low	
					REPTILES			
Acanthophis antarcticus	Common Death Adder		V	MSES	Occurs from central Queensland through New South Wales to the southern parts of South Australia and Western Australia. This species is found in a wide variety of well-drained habitats, including rainforests and wet sclerophyll forests, woodland, shrublands, grasslands and coastal heathlands, preferring sites with deep fixed leaf litter.	,	Low	
Denisonia maculata	Ornamental snake		V	MSES	Found in the Bowen Basin of Queensland. They are nocturnal and are thought to shelter in soil cracks during the day.	ů ů	Low	
	PLANTS							



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
Bosistoa transversa	Three-leaved Bosistoa	V	-	PMST	Grows in lowland subtropical rainforest up to 300 m above sea level.	No subtropical rainforest present. Species unlikely to be present. No records within 1km of the site since 1980.	Low
Boronia keysii	Keys boronia		V	MSES	Key's boronia is usually found in the ecotone between forest and heath and commonly as an understorey species in open forest. It is only known from the Cooloola region near Lake Cootharaba (DES, 2019)	the site since 1980, well outside known range.	Low
Corchorus cunninghamii	Native Jute	Ē		PMST	The Native Jute is found in a mosaic of wet sclerophyll and subtropical rainforest as well as grassy open forest. This species is generally located at low to mid elevations (110–430 m). In general, the soils are shallow, stony and well drained and common canopy species occurring alongside this species include Grey Gum (Eucalyptus propinqua), Brush Box (Lophostemon confertus) and Grey Ironbark (Eucalyptus siderophloia) (DOE 2018).	present in the area. No records within 1km of the	Low
Macadamia integrifolia	Queensland Nut	V	V	PMST	Remnant rainforest, including complex mixed notophyll forest, and prefers partially open areas such as rainforest edges.	·	Low
Macadamia ternifolia	Small-fruited Queensland Nut	V		PMST	Following extensive habitat clearing, the species is now considered extremely rare in the wild and is restricted to an area between Mount (Mt) Pinbarren (northern extent) and Mary Cairncross Park near Maleny (southern extent) (a distance of almost 50 km) (DOE 2018i).		Low



Scientific Name	Common Name	EPBC Status	NCA Status	Source	Typical Habitat	Development Site Habitat and Species Assessment	Likely Occurrence
Melaleuca irbyana	Swamp Tea-Tree		E	MSES, ALA	Melaleuca irbyana grows in flat areas that are periodically waterlogged, in eucalypt forest, mixed forest and Melaleuca woodland with a sparse and grassy understorey. It grows on poorly draining, heavy clay soils. (WetlandInfo, 2019)	flat and poorly drained on clay soils. One	Low
Rhodomyrtus rubescens	Scrub turpentine		E	PMST	Populations and individuals of R. rubescens are often found in wet sclerophyll associations in rainforest transition zones and creekside riparian vegetation (Benson and McDougall 1998).		Low
Rhodomyrtus psidioides	Native Guava		E	PMST	Found in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest often near creeks and drainage lines (NSW Gov, 2020)	No rainforest or wet sclerophyll habitat present within development footprint. No specimens have been recorded within 1km of the site since 1980.	Low
Samadera bidwillii	Quassia		V	PMST	Quassia commonly occurs in lowland rainforest or on rainforest margins, but it can also be found in other forest types, such as open forest and woodland. Quassia is commonly found in areas adjacent to both temporary and permanent watercourses (Hewson 1985; QDNR 2001; Stanley & Ross 1983; DoEE 2019).		Low

EPBC = Environment Protection and Biodiversity Conservation Act 1999; where NT = Near Threatened, V = Vulnerable, E = Endangered, CE = Critically Endangered, and M = Migratory

NCA = Nature Conservation Act 1992; where SLC = Special Least Concern, NT = Near Threatened, V = Vulnerable, E = Endangered, CE = Critically Endangered.

Source:

PMST = Protected Matters Search Tool

WO = Wildlife Online

ALA = Atlas of Living Australia

EH = Essential Habitat Mapping

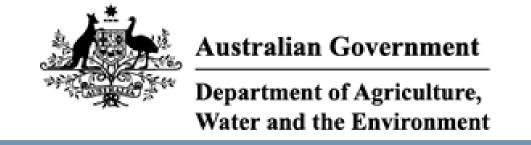
MSES = Matter of State Environmental Significance Report

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Queensland Government (2019) Species Profiles https://apps.des.qld.gov.au/species-search/





## **EPBC Act Protected Matters Report**

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 25/05/21 16:27:14

Summary Details

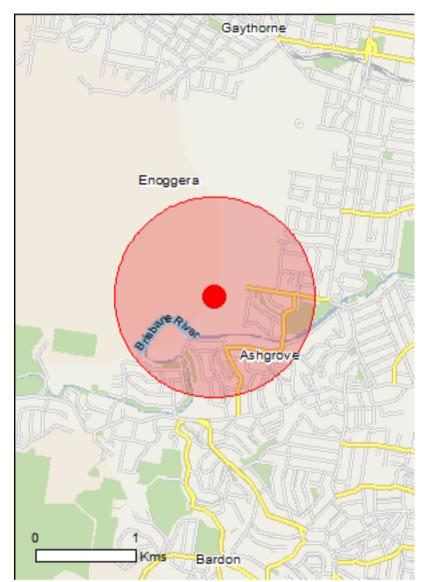
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Other Matters Protected by the EPBC Act

**Extra Information** 

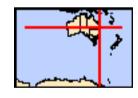
Caveat

<u>Acknowledgements</u>



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

Coordinates
Buffer: 1.0Km



### **Summary**

### Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	3
Listed Threatened Species:	40
Listed Migratory Species:	15

### Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	1
Commonwealth Heritage Places:	1
Listed Marine Species:	21
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

### **Extra Information**

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	45
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

## **Details**

## Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Moreton bay	10 - 20km upstream

Listed Threatened Ecological Communities		[ Resource Information ]
For threatened ecological communities where the distributions, State vegetation maps, remote sensing imagery a community distributions are less well known, existing ve produce indicative distribution maps.	and other sources. Where	threatened ecological
Name	Status	Type of Presence
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological	Endangered	Community may occur within area
community Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community may occur within area
Listed Threatened Species		[ Resource Information ]
Name	Status	Type of Presence
Birds		
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat known to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
Rostratula australis	_	_
Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area
Thinornis cucullatus cucullatus		
Eastern Hooded Plover, Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat may occur within area
<u>Turnix melanogaster</u>		
Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
Fish		
Neoceratodus forsteri		
Australian Lungfish, Queensland Lungfish [67620]	Vulnerable	Species or species habitat known to occur within area
Frogs Mixen by confloanti		
Mixophyes fleayi  Fleav's Frog [25960]	Endangered	Species or species habitat
Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area
Insects  Argyppis hyporbius, inconstant		
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat
Australian i miliary [00000]	Childally Endangered	may occur within area
Mammals		
Chalinolobus dwyeri	Vulnerable	Species or species habitat
Large-eared Pied Bat, Large Pied Bat [183]	vuirierable	Species or species habitat may occur within area
Dasyurus hallucatus		
Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (SE mainland populati	on)	
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Petauroides volans		
Greater Glider [254]	Vulnerable	Species or species habitat
		likely to occur within area
Petrogale penicillata		
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld,	NSW and the ACT)	
Koala (combined populations of Queensland, New	Vulnerable	Species or species habitat
South Wales and the Australian Capital Territory) [85104]		known to occur within area
Potorous tridactylus tridactylus		
Long-nosed Potoroo (SE Mainland) [66645]	Vulnerable	Species or species habitat
		may occur within area
Pteropus poliocephalus		
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		aroa
Arthraxon hispidus		
Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
Bosistoa transversa		
Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat
		likely to occur within area
Corchorus cunninghamii	Forder on the	
Native Jute [14659]	Endangered	Species or species habitat likely to occur within area
		10 000ai Widilii aroa

Name	Status	Type of Presence
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat may occur within area
Cupaniopsis shirleyana Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat may occur within area
<u>Dichanthium setosum</u> bluegrass [14159]	Vulnerable	Species or species habitat may occur within area
Lepidium peregrinum Wandering Pepper-cress [14035]	Endangered	Species or species habitat may occur within area
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth- shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area
Macadamia ternifolia Small-fruited Queensland Nut, Gympie Nut [7214]	Vulnerable	Species or species habitat likely to occur within area
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat may occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat likely to occur within area
Samadera bidwillii Quassia [29708]	Vulnerable	Species or species habitat likely to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species  * Species is listed under a different scientific name on	the EPBC Act - Threatened	[ Resource Information ] d Species list.
Name Migratory Marine Birds	Threatened	Type of Presence
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Hirundapus caudacutus		31
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat likely to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat likely to occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<u>Calidris melanotos</u>		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

### Other Matters Protected by the EPBC Act

## Commonwealth Land [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

### Name

Defence - Training logistic centre

Commonwealth Heritage Places		[ Resource Information ]
Name	State	Status
Historic		
Enoggera Magazine Complex	QLD	Listed place
Listed Marine Chasins		[ Decourse Information ]

# Listed Marine Species \* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name Birds	Threatened	Type of Presence
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Anseranas semipalmata		
Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
<u>Lathamus discolor</u>		
Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area
		•
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat known to occur within area
Thinornis rubricollis rubricollis		
Hooded Plover (eastern) [66726]	Vulnerable*	Species or species habitat may occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

### **Extra Information**

Invasive Species [Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata		
Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Streptopelia chinensis		
Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris		
Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina		
Cane Toad [83218]		Species or species habitat known to occur

Name	Status	Type of Presence within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Anredera, Gulf Madeiravine, Heartleaf Madei Potato Vine [2643] Asparagus aethiopicus	•	Species or species habitat likely to occur within area
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Sprengi's Fern, Bushy Asparagus, Emerald A [62425] Asparagus africanus	•	Species or species habitat likely to occur within area
Climbing Asparagus, Climbing Asparagus Fe [66907]	rn	Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, F Smilax, Smilax Asparagus [22473]	Florist's	Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species

Name	Status	Type of Presence
Cabomba caroliniana		habitat likely to occur within area
Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171] Chrysanthemoides monilifera		Species or species habitat likely to occur within area
Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Cryptostegia grandiflora Rubber Vine, Rubbervine, India Rubber Vine, India Rubbervine, Palay Rubbervine, Purple Allamanda [18913] Dolichandra unguis-cati		Species or species habitat likely to occur within area
Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Hymenachne amplexicaulis Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]		Species or species habitat likely to occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large- leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Opuntia spp.		Species or species habitat likely to occur within area
Prickly Pears [82753]		Species or species habitat likely to occur within area
Parkinsonia aculeata Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		Species or species habitat likely to occur within area
Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Solanum elaeagnifolium Silver Nightshade, Silver-leaved Nightshade, White Horse Nettle, Silver-leaf Nightshade, Tomato Weed, White Nightshade, Bull-nettle, Prairie-berry, Satansbos, Silver-leaf Bitter-apple, Silverleaf-nettle, Trompillo [12323]		Species or species habitat likely to occur within area
Reptiles Hemidaetylus franctus		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Ramphotyphlops braminus		
Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat likely to occur within area

### Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the gualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

### Coordinates

-27.4385 152.9777

## Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- -Office of Environment and Heritage, New South Wales
- -Department of Environment and Primary Industries, Victoria
- -Department of Primary Industries, Parks, Water and Environment, Tasmania
- -Department of Environment, Water and Natural Resources, South Australia
- -Department of Land and Resource Management, Northern Territory
- -Department of Environmental and Heritage Protection, Queensland
- -Department of Parks and Wildlife, Western Australia
- -Environment and Planning Directorate, ACT
- -Birdlife Australia
- -Australian Bird and Bat Banding Scheme
- -Australian National Wildlife Collection
- -Natural history museums of Australia
- -Museum Victoria
- -Australian Museum
- -South Australian Museum
- -Queensland Museum
- -Online Zoological Collections of Australian Museums
- -Queensland Herbarium
- -National Herbarium of NSW
- -Royal Botanic Gardens and National Herbarium of Victoria
- -Tasmanian Herbarium
- -State Herbarium of South Australia
- -Northern Territory Herbarium
- -Western Australian Herbarium
- -Australian National Herbarium, Canberra
- -University of New England
- -Ocean Biogeographic Information System
- -Australian Government, Department of Defence
- Forestry Corporation, NSW
- -Geoscience Australia
- -CSIRO
- -Australian Tropical Herbarium, Cairns
- -eBird Australia
- -Australian Government Australian Antarctic Data Centre
- -Museum and Art Gallery of the Northern Territory
- -Australian Government National Environmental Science Program
- -Australian Institute of Marine Science
- -Reef Life Survey Australia
- -American Museum of Natural History
- -Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
- -Tasmanian Museum and Art Gallery, Hobart, Tasmania
- -Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.



#### Wildlife Online Extract

Search Criteria: Species List for a Specified Point

Species: All Type: Native Status: All Records: All

Date: Since 1980 Latitude: -27.4385 Longitude: 152.9777

Distance: 1

Email: lucy@s5consulting.com.au

Date submitted: Tuesday 25 May 2021 16:35:14 Date extracted: Tuesday 25 May 2021 16:40:02

The number of records retrieved = 71

#### **Disclaimer**

As the DSITIA is still in a process of collating and vetting data, it is possible the information given is not complete. The information provided should only be used for the project for which it was requested and it should be appropriately acknowledged as being derived from Wildlife Online when it is used.

The State of Queensland does not invite reliance upon, nor accept responsibility for this information. Persons should satisfy themselves through independent means as to the accuracy and completeness of this information.

No statements, representations or warranties are made about the accuracy or completeness of this information. The State of Queensland disclaims all responsibility for this information and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	Α	Records
animals	amphibians	Limnodynastidae	Adelotus brevis	tusked frog		V		12
animals	birds	Acanthizidae	Sericornis frontalis	white-browed scrubwren		С		1
animals	birds	Accipitridae	Lophoictinia isura	square-tailed kite		С		1
animals	birds	Aegothelidae	Aegotheles cristatus	Australian owlet-nightjar		С		1
animals	birds	Ardeidae	Bubulcus ibis	cattle egret		С		1
animals	birds	Ardeidae	Egretta novaehollandiae	white-faced heron		С		1
animals	birds	Artamidae	Gymnorhina tibicen	Australian magpie		С		1
animals	birds	Artamidae	Strepera graculina	pied currawong		С		1
animals	birds	Burhinidae	Burhinus grallarius	bush stone-curlew		С		2
animals	birds	Columbidae	Ptilinopus regina	rose-crowned fruit-dove		С		1
animals	birds	Corvidae	Corvus orru	Torresian crow		С		1
animals	birds	Falconidae	Falco peregrinus	peregrine falcon		С		1
animals	birds	Halcyonidae	Dacelo novaeguineae	laughing kookaburra		С		1
animals	birds	Maluridae	Malurus melanocephalus	red-backed fairy-wren		С		1
animals	birds	Meliphagidae	Manorina melanocephala	noisy miner		С		2
animals	birds	Pardalotidae	Pardalotus striatus <sup>'</sup>	striated pardalote		С		1
animals	birds	Psittacidae	Trichoglossus chlorolepidotus	scaly-breasted lorikeet		С		1
animals	birds	Psophodidae	Psophodes olivaceus	eastern whipbird		С		1
animals	birds	Rallidae	Amaurornis moluccana	pale-vented bush-hen		С		1
animals	birds	Rhipiduridae	Rhipidura leucophrys	willie wagtail		С		1
animals	birds	Threskiornithidae	Platalea regia	royal spoonbill		С		1
animals	birds	Threskiornithidae	Threskiornis spinicollis	straw-necked ibis		С		1
animals	mammals	Petauridae	Petaurus norfolcensis	squirrel glider		С		4
animals	mammals	Phalangeridae	Trichosurus vulpecula	common brushtail possum		С		1
animals	mammals	Phascolarctidae	Phascolarctos cinereus	koala		V	V	4
animals	mammals	Pteropodidae	Pteropus poliocephalus	grey-headed flying-fox		С	V	1
animals	ray-finned fishes	Anguillidae	Anguilla australis	southern shortfin eel				1
animals	ray-finned fishes	Anguillidae	Anguilla reinhardtii	longfin eel				1
animals	ray-finned fishes	Eleotridae	Hypseleotris galii	firetail gudgeon				1
animals	ray-finned fishes	Retropinnidae	Retropinna semoni	Australian smelt				1
animals	reptiles	Boidae	Morelia spilota	carpet python		С		4
animals	reptiles	Colubridae	Dendrelaphis punctulatus	green tree snake		С		1
animals	reptiles	Colubridae	Boiga irregularis	brown tree snake		С		2
animals	reptiles	Elapidae	Tropidechis carinatus	rough-scaled snake		С		1
animals	reptiles	Elapidae	Cacophis squamulosus	golden crowned snake		С		1
animals	reptiles	Scincidae	Eulamprus quoyii	eastern water skink		С		2
fungi	Agaricomycetes	Agaricaceae	Macrolepiota					1/1
fungi	Agaricomycetes	Tricholomataceae	Macrocybe crassa			С		1/1
fungi	lecanoromycetes	Caliciaceae	Dirinaria flava			С		1/1
fungi	lecanoromycetes	Caliciaceae	Dirinaria aegialita			С		1/1
fungi		Coccocarpiaceae	Coccocarpia palmicola			С		2/2
fungi	lecanoromycetes	Collemataceae	Leptogium austroamericanum			С		1/1
fungi	lecanoromycetes	Graphidaceae	Diploschistes actinostomus			С		2/2
fungi	lecanoromycetes		Lecanora margarodes			С		1/1
fungi	lecanoromycetes		Parmotrema parahypotropum			С		1/1
fungi	lecanoromycetes	Parmeliaceae	Hypotrachyna immaculata			С		1/1

Kingdom	Class	Family	Scientific Name	Common Name		Q	Α	Records
fungi	lecanoromycetes	Parmeliaceae	Parmotrema reticulatum	Parmotrema reticulatum		С		2/2
fungi	lecanoromycetes	Parmeliaceae	Parmotrema cristiferum			С		1/1
fungi	lecanoromycetes		Hypotrachyna osseoalba			С		1/1
fungi	lecanoromycetes		Relicina sydneyensis			С		2/2
fungi	lecanoromycetes	Parmeliaceae	Parmotrema tinctorum			С		1/1
fungi	lecanoromycetes		Pertusaria					1/1
fungi	lecanoromycetes		Rinodina moziana var. moziana			С		1/1
fungi	lecanoromycetes		Heterodermia obscurata			С		1/1
fungi	lecanoromycetes	_ *	Protoblastenia					1/1
plants	land plants	Acanthaceae	Rostellularia obtusa			С		1/1
plants	land plants	Amaranthaceae	Alternanthera denticulata	lesser joyweed		С		1/1
plants	land plants	Asteraceae	Sigesbeckia orientalis	Indian weed		С		1/1
plants	land plants	Cyperaceae	Carex gaudichaudiana			С		1/1
plants	land plants	Lamiaceae	Anisomeles moschata			С		1/1
plants	land plants	Laxmanniaceae	Lomandra filiformis	Lomandra filiformis		С		2/2
plants	land plants	Myrtaceae	Melaleuca viminalis			С		1/1
plants	land plants	Onagraceae	Ludwigia peploides subsp. montevidensis			С		1/1
plants	land plants	Onagraceae	Ludwigia octovalvis	willow primrose		С		1/1
plants	land plants	Poaceae	Lachnagrostis filiformis	·		С		1/1
plants	land plants	Poaceae	Danthonia spicata			С		1/1
plants	land plants	Poaceae	Danthonia sericea			С		1/1
plants	land plants	Polygonaceae	Persicaria decipiens	slender knotweed		С		1/1
plants	land plants	Polygonaceae	Rumex brownii	swamp dock		С		2/2
plants	land plants	Polygonaceae	Persicaria lapathifolia	pale knotweed		С		1/1
plants	land plants	Tropaeolaceae	Tropaeolum		1/1			

#### **CODES**

- I Y indicates that the taxon is introduced to Queensland and has naturalised.
- Q Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992*. The codes are Extinct in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ().
- A Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999*. The values of EPBC are Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Extinct in the Wild (XW) and Vulnerable (V).

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).

This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon. This number is output as 999 if it equals or exceeds this value.



#### **Department of Environment and Science**

### **Environmental Reports**

### **Matters of State Environmental Significance**

For the selected area of interest Lot: 364 Plan: SP272699

### **Environmental Reports - General Information**

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or area of interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "central coordinates" option, the resulting assessment area encompasses an area extending for a 2km radius from the point of interest.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Please direct queries about these reports to: Planning.Support@des.qld.gov.au

#### **Disclaimer**

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.



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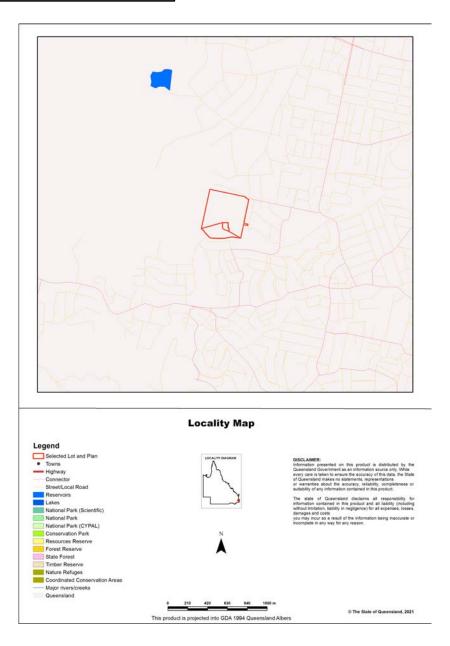
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### **Assessment Area Details**

The following table provides an overview of the area of interest (AOI) with respect to selected topographic and environmental values.

Table 1: Summary table, details for AOI Lot: 364 Plan: SP272699

Size (ha)	19.55
Local Government(s)	Brisbane City
Bioregion(s)	Southeast Queensland
Subregion(s)	Burringbar - Conondale Ranges
Catchment(s)	Brisbane



### Matters of State Environmental Significance (MSES)

#### **MSES Categories**

Queensland's State Planning Policy (SPP) includes a biodiversity State interest that states:

'The sustainable, long-term conservation of biodiversity is supported. Significant impacts on matters of national or state environmental significance are avoided, or where this cannot be reasonably achieved; impacts are minimised and residual impacts offset.'

The MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The SPP defines matters of state environmental significance as:

- Protected areas (including all classes of protected area except coordinated conservation areas) under the *Nature Conservation Act 1992*;
- Marine parks and land within a 'marine national park', 'conservation park', 'scientific research', 'preservation' or 'buffer' zone under the *Marine Parks Act 2004*:
- Areas within declared fish habitat areas that are management A areas or management B areas under the Fisheries Regulation 2008;
- Threatened wildlife under the *Nature Conservation Act 1992* and special least concern animals under the Nature Conservation (Wildlife) Regulation 2006;
- Regulated vegetation under the Vegetation Management Act 1999 that is:
  - Category B areas on the regulated vegetation management map, that are 'endangered' or 'of concern' regional ecosystems;
  - Category C areas on the regulated vegetation management map that are 'endangered' or 'of concern' regional ecosystems;
  - Category R areas on the regulated vegetation management map;
  - Regional ecosystems that intersect with watercourses identified on the vegetation management watercourse and drainage feature map;
  - Regional ecosystems that intersect with wetlands identified on the vegetation management wetlands map;
- Strategic Environmental Areas under the Regional Planning Interests Act 2014;
- Wetlands in a wetland protection area of wetlands of high ecological significance shown on the Map of Queensland Wetland Environmental Values under the Environment Protection Regulation 2019;
- Wetlands and watercourses in high ecological value waters defined in the Environmental Protection (Water) Policy 2009, schedule 2:
- Legally secured offset areas.

### **MSES Values Present**

The MSES values that are present in the area of interest are summarised in the table below:

Table 2: Summary of MSES present within the AOI

1a Protected Areas- estates	0.0 ha	0.0 %
1b Protected Areas- nature refuges	0.0 ha	0.0 %
1c Protected Areas- special wildlife reserves	0.0 ha	0.0 %
2 State Marine Parks- highly protected zones	0.0 ha	0.0 %
3 Fish habitat areas (A and B areas)	0.0 ha	0.0 %
4 Strategic Environmental Areas (SEA)	0.0 ha	0.0 %
5 High Ecological Significance wetlands on the map of Referable Wetlands	0.0 ha	0.0 %
6a High Ecological Value (HEV) wetlands	0.0 ha	0.0 %
6b High Ecological Value (HEV) waterways **	0.0 km	Not applicable
7a Threatened (endangered or vulnerable) wildlife	0.7 ha	3.6%
7b Special least concern animals	0.7 ha	3.6%
7c i Koala habitat area - core (SEQ)	0.7 ha	3.6%
7c ii Koala habitat area - locally refined (SEQ)	0.64 ha	3.3%
8a Regulated Vegetation - Endangered/Of concern in Category B (remnant)	0.08 ha	0.42%
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	0.0 ha	0.0 %
8c Regulated Vegetation - Category R (GBR riverine regrowth)	0.0 ha	0.0 %
8d Regulated Vegetation - Essential habitat	2.25 ha	11.5%
8e Regulated Vegetation - intersecting a watercourse **	0.0 km	Not applicable
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland	0.0 ha	0.0 %
9a Legally secured offset areas- offset register areas	0.0 ha	0.0 %
9b Legally secured offset areas- vegetation offsets through a Property Map of Assessable Vegetation	0.0 ha	0.0 %
	•	

## **Additional Information with Respect to MSES Values Present**

#### **MSES - State Conservation Areas**

1a. Protected Areas - estates

(no results)

1b. Protected Areas - nature refuges

(no results)

1c. Protected Areas - special wildlife reserves

(no results)

2. State Marine Parks - highly protected zones

(no results)

3. Fish habitat areas (A and B areas)

(no results)

Refer to Map 1 - MSES - State Conservation Areas for an overview of the relevant MSES.

#### **MSES - Wetlands and Waterways**

4. Strategic Environmental Areas (SEA)

(no results)

5. High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values

(no results)

6a. Wetlands in High Ecological Value (HEV) waters

(no results)

6b. Waterways in High Ecological Value (HEV) waters

(no results)

Refer to Map 2 - MSES - Wetlands and Waterways for an overview of the relevant MSES.

#### **MSES - Species**

7a. Threatened (endangered or vulnerable) wildlife

Values are present

#### 7b. Special least concern animals

Values are present

#### 7c i. Koala habitat area - core (SEQ)

Values are present

#### 7c ii. Koala habitat area - locally refined (SEQ)

Values are present

#### Threatened (endangered or vulnerable) wildlife habitat suitability models

Species	Common name	NCA status	Presence
Boronia keysii		V	None
Calyptorhynchus lathami	Glossy black cockatoo	V	None
Casuarius casuarius johnsonii	Sthn population cassowary	Е	None
Crinia tinnula	Wallum froglet	V	None
Denisonia maculata	Ornamental snake	V	None
Litoria freycineti	Wallum rocketfrog	V	None
Litoria olongburensis	Wallum sedgefrog	V	None
Melaleuca irbyana		Е	None
Petaurus gracilis	Mahogany Glider	Е	None
Petrogale persephone	Proserpine rock-wallaby	Е	None
Phascolarctos cinereus	Koala - outside SEQ*	V	None
Pezoporus wallicus wallicus	Eastern ground parrot	V	None
Taudactylus pleione	Kroombit tinkerfrog	E	None
Xeromys myoides	Water Mouse	V	None

<sup>\*</sup>For koala model, this includes areas outside SEQ. Check 7c SEQ koala habitat for presence/absence.

#### Threatened (endangered or vulnerable) wildlife species records

Scientific name	Common name	NCA status	EPBC status	Migratory status
Adelotus brevis	tusked frog	V		
Thelepogon australiensis		V		
Ninox strenua	powerful owl	V		

#### Special least concern animal species records

Scientific name	Common name	Migratory status
Ornithorhynchus anatinus	platypus	

<sup>\*</sup>Nature Conservation Act 1992 (NCA) Status- Endangered (E), Vulnerable (V) or Special Least Concern Animal (SL). Environment Protection and Biodiversity Conservation Act 1999 (EPBC) status: Critically Endangered (CE) Endangered (E), Vulnerable (V)

Migratory status (M) - China and Australia Migratory Bird Agreement (C), Japan and Australia Migratory Bird Agreement (J), Republic of Korea and Australia Migratory Bird Agreement (R), Bonn Migratory Convention (B), Eastern Flyway (E)

To request a species list for an area, or search for a species profile, access Wildlife Online at: <a href="https://www.gld.gov.au/environment/plants-animals/species-list/">https://www.gld.gov.au/environment/plants-animals/species-list/</a>

Refer to Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals and Map 3b - MSES - Species - Koala habitat area (SEQ) for an overview of the relevant MSES.

#### **MSES - Regulated Vegetation**

For further information relating to regional ecosystems in general, go to:

https://www.qld.gov.au/environment/plants-animals/plants/ecosystems/

For a more detailed description of a particular regional ecosystem, access the regional ecosystem search page at: <a href="https://environment.ehp.qld.gov.au/regional-ecosystems/">https://environment.ehp.qld.gov.au/regional-ecosystems/</a>

#### 8a. Regulated Vegetation - Endangered/Of concern in Category B (remnant)

Regional ecosystem	Vegetation management polygon	Vegetation management status
12.3.11	O-dom	rem_oc

#### 8b. Regulated Vegetation - Endangered/Of concern in Category C (regrowth)

Not applicable

#### 8c. Regulated Vegetation - Category R (GBR riverine regrowth)

Not applicable

#### 8d. Regulated Vegetation - Essential habitat

Values are present

#### 8e. Regulated Vegetation - intersecting a watercourse\*\*

(no results)

#### 8f. Regulated Vegetation - within 100m of a Vegetation Management wetland

Not applicable

Refer to Map 4 - MSES - Regulated Vegetation for an overview of the relevant MSES.

#### **MSES - Offsets**

#### 9a. Legally secured offset areas - offset register areas

(no results)

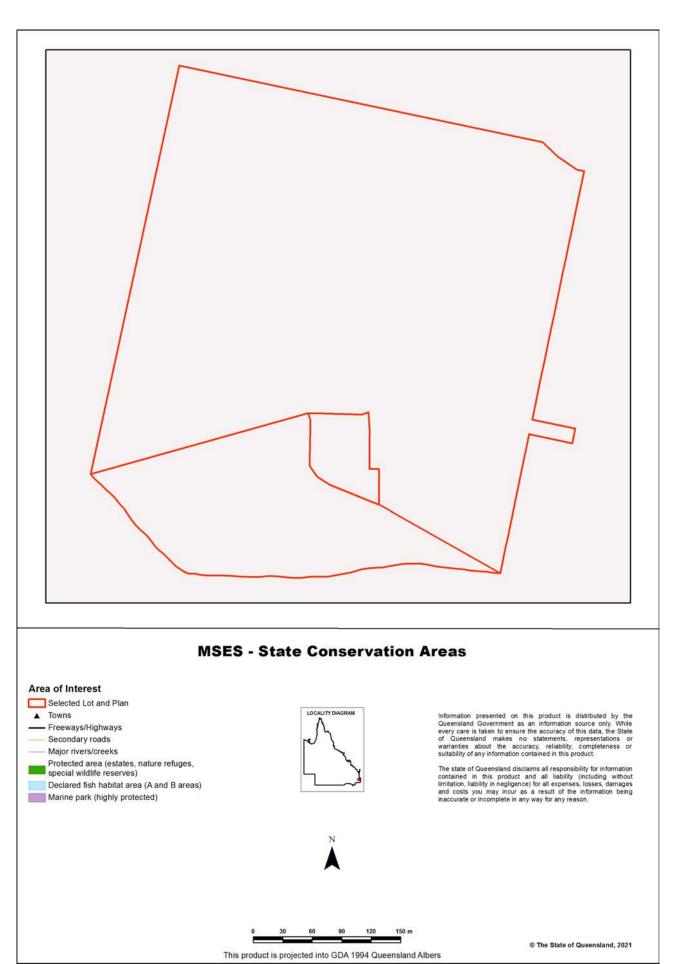
#### 9b. Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation

(no results)

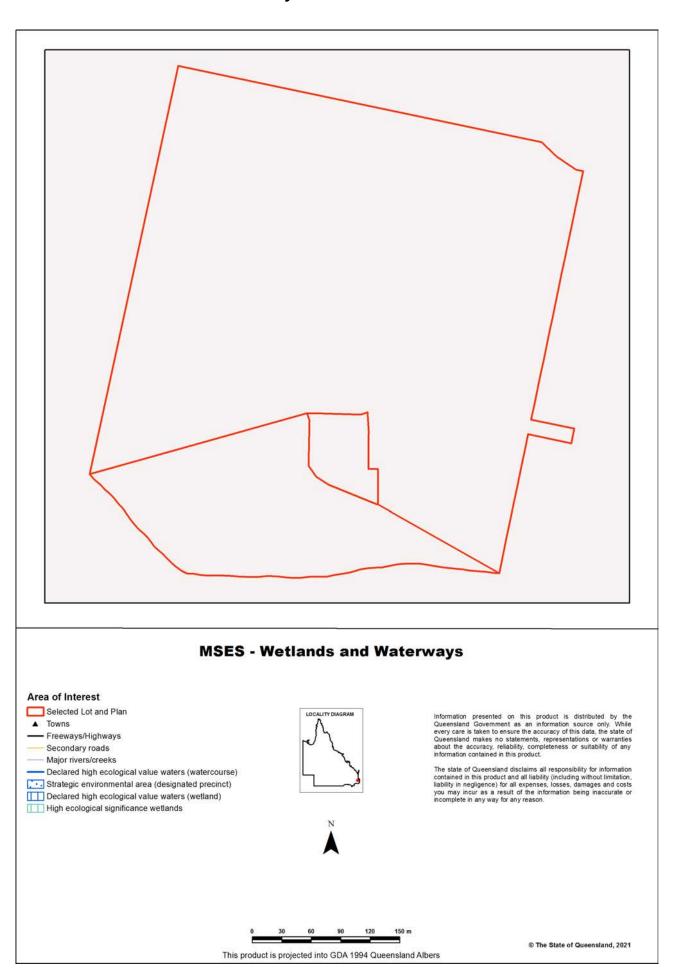
Page 9

Refer to **Map 5 - MSES - Offset Areas** for an overview of the relevant MSES.

## Map 1 - MSES - State Conservation Areas

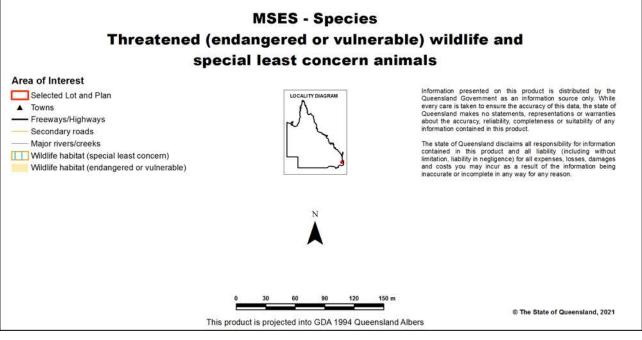


## Map 2 - MSES - Wetlands and Waterways



# Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals





## Map 3b - MSES - Species - Koala habitat area (SEQ)

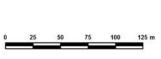




The koala habitat mapping within South East Queensland uses regional ecosystem linework compiled at a scale varying from 1:25,000 to 1:100,000 Linework should be used as a guide only. The positional accuracy of regional ecosystem data mapped at a scale of 1:100,000 is +/- 100 metres.

The State of Queensland, 2021



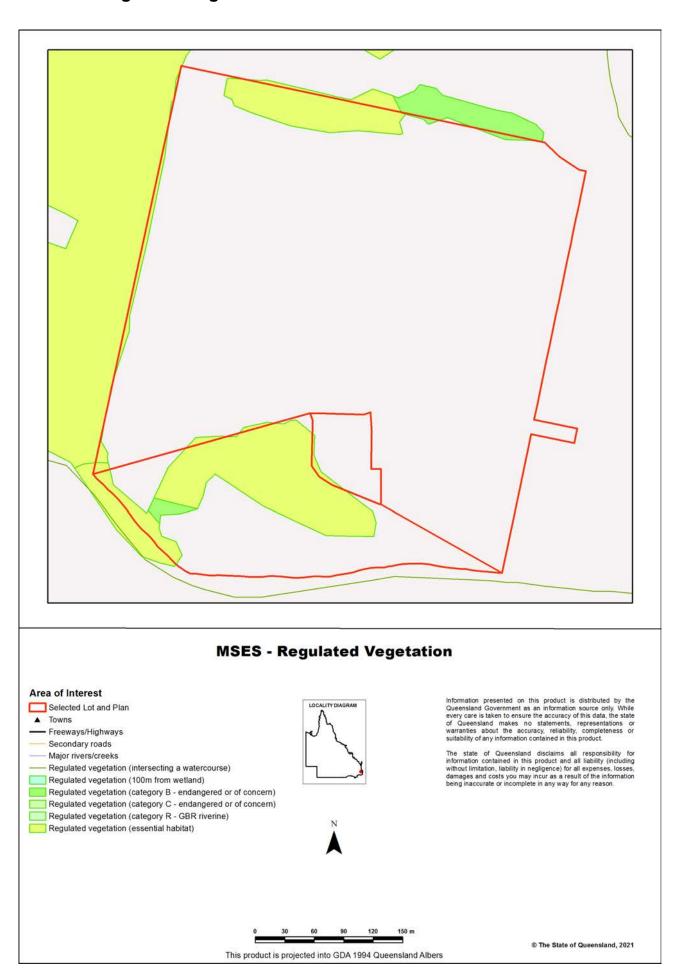


This product is projected into GDA 1994 Queensland Albers

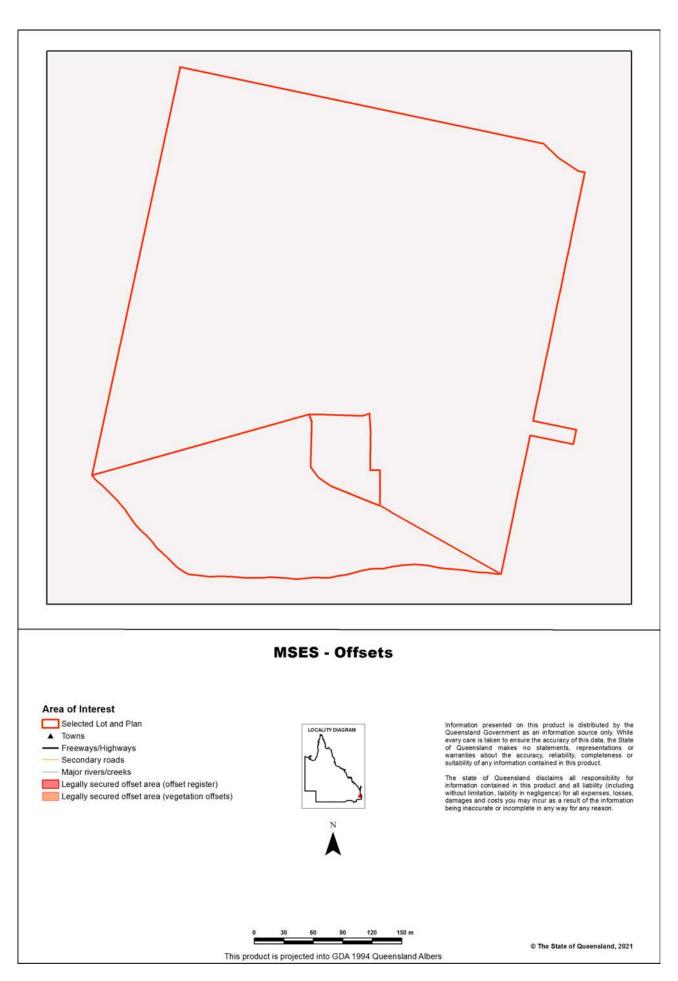
While every care is taken to ensure the accuracy of this product, the Department of Environment and Science acting on behalf of the State of Queensland makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, chamages (including indirect or consequential damage) and costs which you might incur as a result of the data being inaccurate or incomplete in any way and for any reason. Due to varying sources of data, spatial locations may not coincide when overfaid.

The represented layers for SEQ 'koala habitat area-core' and 'koala habitat area- locally refined' in MSES are sourced directly from the regulatory mapping under the Nature Conservation (Koala) Conservation Plan 2017. Whist every effort is made to ensure the information remains current, there may be delays between updating versions. Please refer to the original mapping for the most recent version. See https://environment.des.qid.gov.au/wildife/animals/living-with/koalas/mapping

## Map 4 - MSES - Regulated Vegetation



## Map 5 - MSES - Offset Areas



## **Appendices**

### Appendix 1 - Matters of State Environmental Significance (MSES) methodology

MSES mapping is a regional-scale representation of the definition for MSES under the State Planning Policy (SPP). The compiled MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The Queensland Government's "Method for mapping - matters of state environmental significance for use in land use planning and development assessment" can be downloaded from:

http://www.ehp.gld.gov.au/land/natural-resource/method-mapping-mses.html .

### **Appendix 2 - Source Data**

#### The datasets listed below are available on request from:

http://qldspatial.information.qld.gov.au/catalogue/custom/index.page

· Matters of State environmental significance

Note: MSES mapping is not based on new or unique data. The primary mapping product draws data from a number of underlying environment databases and geo-referenced information sources. MSES mapping is a versioned product that is updated generally on a twice-yearly basis to incorporate the changes to underlying data sources. Several components of MSES mapping made for the current version may differ from the current underlying data sources. To ensure accuracy, or proper representation of MSES values, it is strongly recommended that users refer to the underlying data sources and review the current definition of MSES in the State Planning Policy, before applying the MSES mapping.

Individual MSES layers can be attributed to the following source data available at QSpatial:

MSES layers	current QSpatial data (http://qspatial.information.qld.gov.au)
Protected Areas-Estates, Nature Refuges, Special Wildlife Reserves	- Protected areas of Queensland - Nature Refuges - Queensland - Special Wildlife Reserves- Queensland
Marine Park-Highly Protected Zones	Moreton Bay marine park zoning 2008
Fish Habitat Areas	Queensland fish habitat areas
Strategic Environmental Areas-designated	Regional Planning Interests Act - Strategic Environmental Areas
HES wetlands	Map of Queensland Wetland Environmental Values
Wetlands in HEV waters	HEV waters: - EPP Water intent for waters Source Wetlands: - Queensland Wetland Mapping (Current version 5) Source Watercourses: - Vegetation management watercourse and drainage feature map (1:100000 and 1:250000)
Wildlife habitat (threatened and special least concern)	-WildNet database species records - habitat suitability models (various) - SEQ koala habitat areas under the Koala Conservation Plan 2019
VMA regulated regional ecosystems	Vegetation management regional ecosystem and remnant map
VMA Essential Habitat	Vegetation management - essential habitat map
VMA Wetlands	Vegetation management wetlands map
Legally secured offsets	Vegetation Management Act property maps of assessable vegetation. For offset register data-contact DES
Regulated Vegetation Map	Vegetation management - regulated vegetation management map

**GEM** 

## **Appendix 3 - Acronyms and Abbreviations**

AOI - Area of Interest

DES - Department of Environment and Science

EP Act - Environmental Protection Act 1994

EPP - Environmental Protection Policy

GDA94 - Geocentric Datum of Australia 1994

- General Environmental Matters

GIS - Geographic Information System

MSES - Matters of State Environmental Significance

NCA - Nature Conservation Act 1992

RE - Regional Ecosystem
SPP - State Planning Policy

VMA - Vegetation Management Act 1999

# **APPENDIX B**

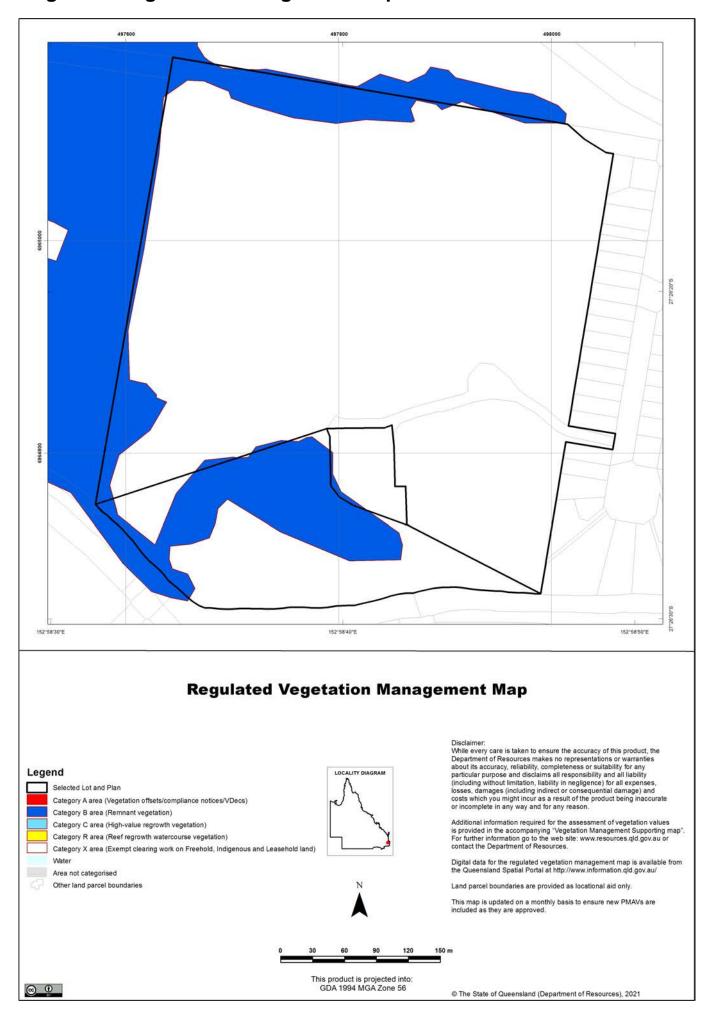
# State Mapping

- Fire Ant Biosecurity Map
- SPP Mapping
- Vegetation Management Property Report

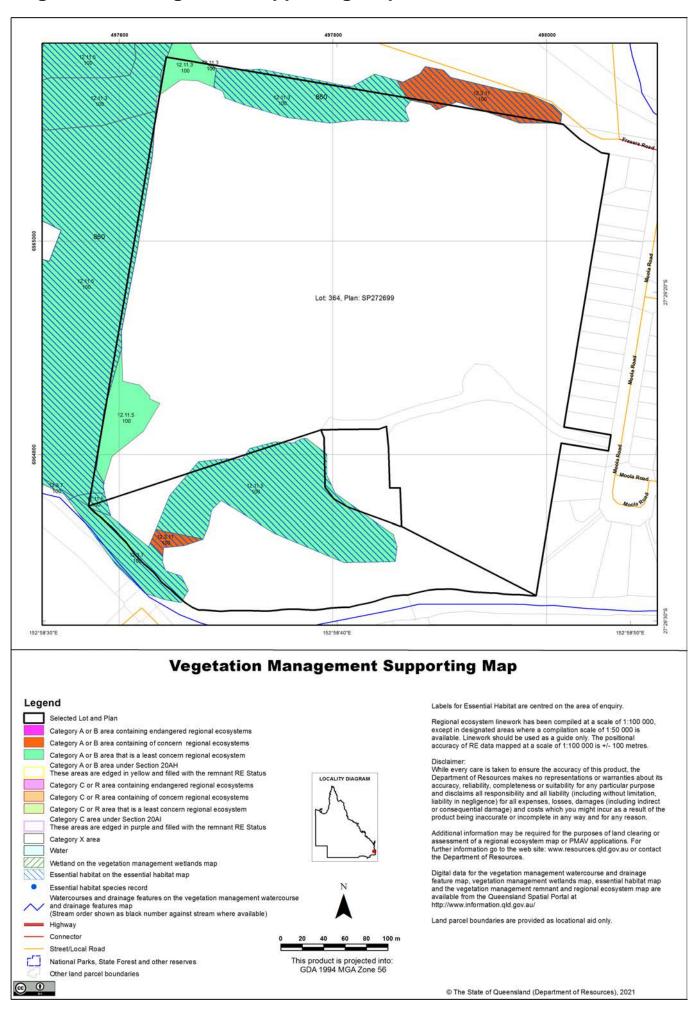


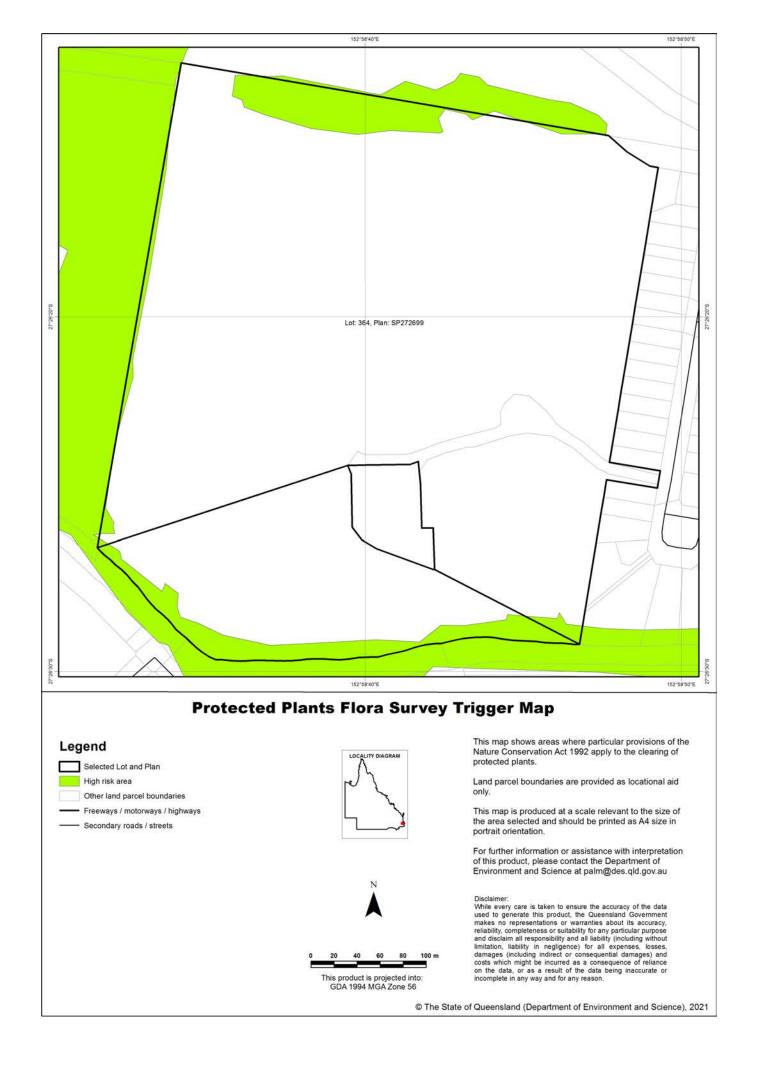
#### National Red Imported Fire Ant Eradication Program: Fire Ant Biosecurity Zones Fire Ant Biosecurity Zone 1 **Mount Byron** Mutdapilly **Laidley Creek West Laidley Heights** Obum Obum **Peak Crossing Laidley North Laidley South Plainland** Lake Clarendon Prenzlau Laceys Creek **Brightview** Radford **Calvert** Coleyville **Limestone Ridges** Regency Downs **College View** Roadvale Lockrose Rockside Coolana **Lower Mount Walker Lower Tenthill Crowley Vale** Rosevale **Mount Hallen Forest Hill** Summerholm Somerset<sup>®</sup> **Frazerview** Milora Tarampa Regional Templin . Teviotville Council **Glenore Grove** Grandchester **Morton Vale Thornton Townson** Harrisville **Mount Berryman Mount Forbes Upper Tenthill** Warrill View **Mount Mort** Washpool **Mount Tarampa Kensington Grove Wilsons Plains Kents Lagoon Mount Walker Buaraba South** Banks Creek **Mount Walker West** Woodlands Woolooman Pocket Munbilla Manchester Lockyer Waters Lake Manchester Fire Ant Biosecurity Zone 2 Seventeen **Brisbane City** Sherwood East Brisbane Manly West East Ipswich Silverbark Ridge Alexandra Hills Sinnamon Park Eastern Heights Slacks Creek Marsden Pine Mountain South Brisbane Maudsland Redland City North Stradbroke South Maclean Meadowbrook Council South Ripley Middle Park Mitchelton Springfield Ashwell Moores Pocket Karawatha Redland Bay Mount Cotton Bannockburn Mount Crosby Mount Gravatt Barellan Point Mount Gravatt East Mount Marrow Basin Pocket Mount Nathan Mount Ommaney Mount Warren Park Surfers Paradise Gleneagle Bellbird Park Glenlogan Mulgowie Tabragalba South Ripley Munruben Tamborine Mountain Nathan Moreton Bay New Beith New Chum New Farm Lefthand Branch Hamilton Blackstone Newtown **Junction View** Harrisville Norman Park Yarrabilba Heathwood North Booval North Ipswich North Maclean Brassall Brisbane Airport Nudgee Beach Brookfield Townson Oxenford Upper Mount Gravatt Moorang Wyaralong Oxley Veresdale Scrub Burbank Pacific Pines Pallara Paradise Point Park Ridge Park Ridge South Cannon Hill Parkwood Patrick Estate Waterford West Carina Heights Pimpama Pine Mountain Frenches **North Branch** Pinkenba Regional Council Cedar Vale Priestdale White Rock Karawatha Chambers Fla Pullenvale Karrabin Willawong Kooralbyn Purga Kenmore Willow Vale Clumber Kenmore Hills Raceview Willowbank Ransome Windaroo Flying Fox Redbank Wishart Burleigh Redbank Plains Wivenhoe Pocket Chuwar Redland Bay Wolffdene **Knapp Creek** Regents Park Clarendon Wongawallan Richlands Wonglepong Currumbin Waters Coalfalls Rifle Range Christmas Creek Collingwood P Tamrookum Creek Riverbend Riverhills Lark Hill Woolloongabba Fire Ant Biosecurity Zone Map Coopers Plain Leichhardt Riverview Wulkuraka as at 27 May 2020, 12.00 am Rochedale Wyaralong Rochedale South Rocklea Wynnum West Crestmead Fire Ant Biosecurity Zone 1 Daisy Hill Rosewood Runaway Bay Yarrabilba Fire Ant Biosecurity Zone 2 Deebing Heights Sadliers Crossing Yeerongpilly Local Government Area **Queensland** Contact the Department of Agriculture and Fisheries for more information or request a biosecurity instrument permit at Seven Hills Drewvale Suburb www.daf.qld.gov.au/fireants or call 13 25 23 Seventeen Mile Rocks Shailer Park The State of Queensland does not warrant the accuracy of this map and disclaims any liability for loss arising from the use of this map beyond its intended purpose. Acknowledgements © State of Queensland (Department of Natural Resources and Mines) 2020. Map produced: Date: 6/05/2020; Time: 2:16:06 PM Eagle Farm

## 4.1 Regulated vegetation management map



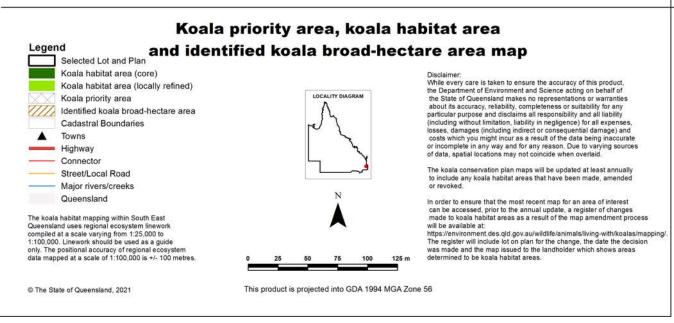
## 4.2 Vegetation management supporting map



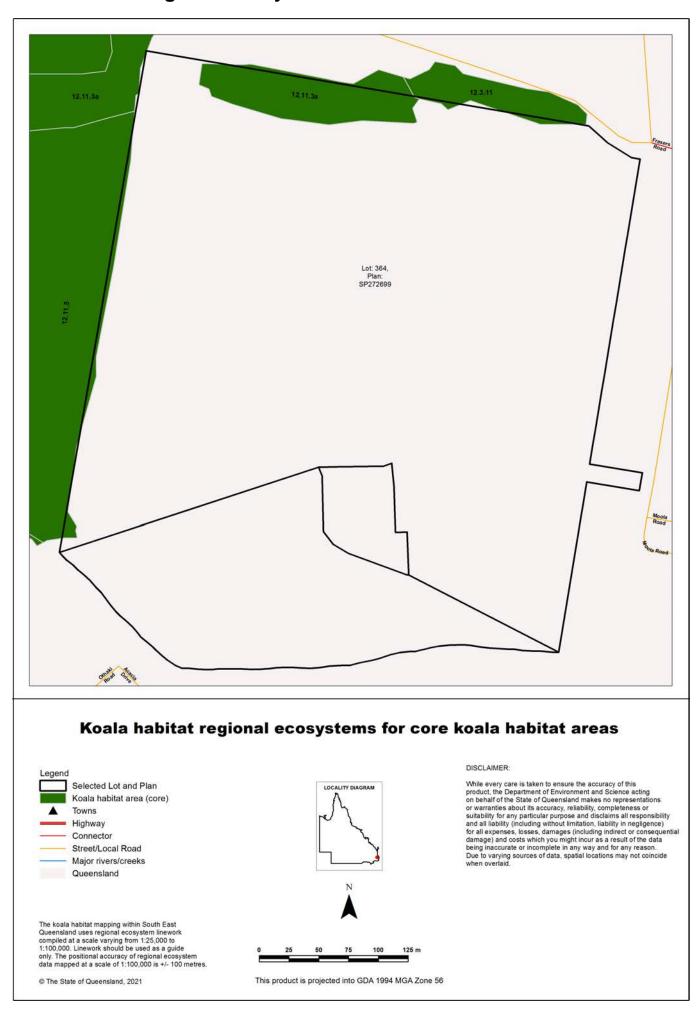


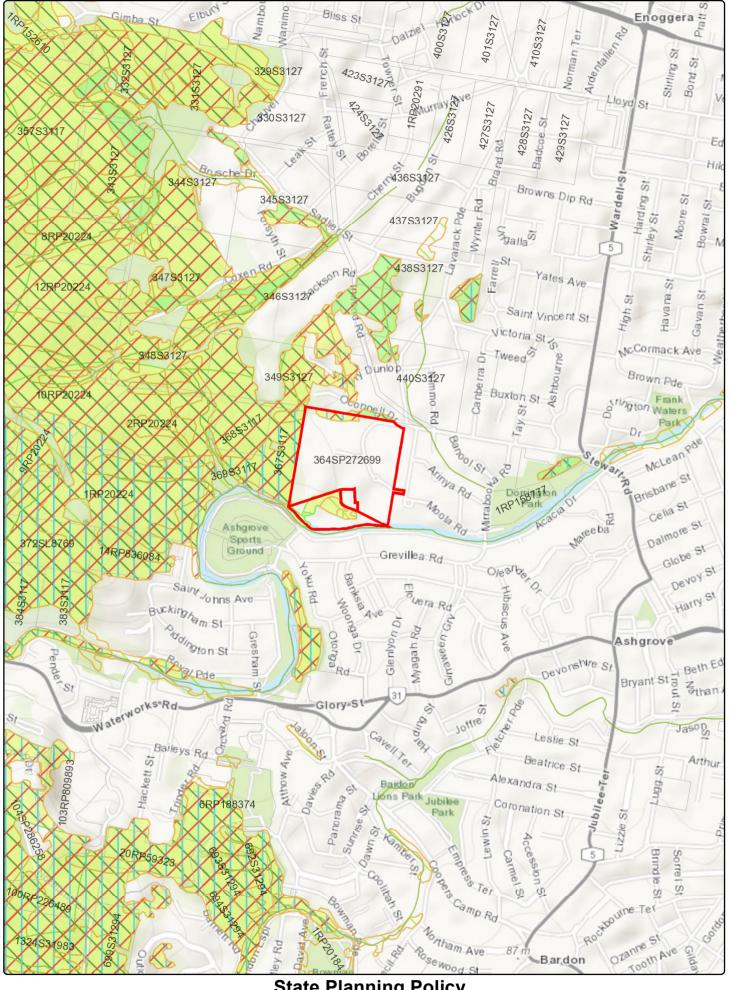
# 7.2 Koala priority area, koala habitat area and identified koala broad-hectare area map





## 7.3 Koala habitat regional ecosystems for core koala habitat areas







Date: 26/08/2021

State Planning Policy
Making or amending a local planning instrument and designating land for community infrastructure

**Queensland Government** 

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290 580 870 1,160 Metres

### Legend

Leg	jenu
Drawn Polygon Layer	MSES - Regulated vegetation (category B)
Override 1	MSES - Regulated vegetation (category B)
Cadastre (25k)	MSES - Regulated vegetation (category C)
Cadastre (25k)	MSES - Regulated vegetation (category C)
MSES - Regulated vegetation (intersecting a watercourse)	MSES - Regulated vegetation (category R)
MSES - Regulated vegetation (intersecting a watercourse)	MSES - Regulated vegetation (category R)
MSES - High ecological value waters (watercourse)	MSES - Regulated vegetation (essential habitat)  MSES - Regulated vegetation (essential
MSES - High ecological value waters (watercourse)	habitat)
MSES - Wildlife habitat (endangered or vulnerable)	MSES - Regulated vegetation (wetland)
MSES - Wildlife habitat (endangered or vulnerable)	MSES - Regulated vegetation (wetland)
MSES - Wildlife habitat (special least concern animal)	
MSES - Wildlife habitat (special least concern animal)	
MSES - Wildlife habitat (koala habitat areas - core)	
MSES - Wildlife habitat (koala habitat areas - core)	
MSES - Wildlife habitat (koala habitat areas - locally refined)	
MSES - Wildlife habitat (koala habitat areas - locally refined)	
MSES - Strategic environmental areas (designated precinct)	
MSES - Strategic environmental areas (designated precinct)	
MSES - High ecological significance wetlands	
MSES - High ecological significance wetlands	
MSES - High ecological value waters (wetland)	
MSES - High ecological value waters (wetland)	
MSES - Legally secured offset area (offset register)	
MSES - Legally secured offset area (offset register)	
MSES - Legally secured offset area (regulated vegetation offsets)	
MSES - Legally secured offset area (regulated vegetation offsets)	
MSES - Protected areas (estate)	
MSES - Protected areas (estate)	
MSES - Protected areas (special wildlife reserve)	
MSES - Protected areas (special wildlife reserve)	
MSES - Protected areas (nature refuge)	
MSES - Protected areas (nature refuge)	
MSES - Marine park (highly protected areas)	
MSES - Marine park (highly protected areas)	
MSES - Declared fish habitat area	
MSES - Declared fish habitat area	





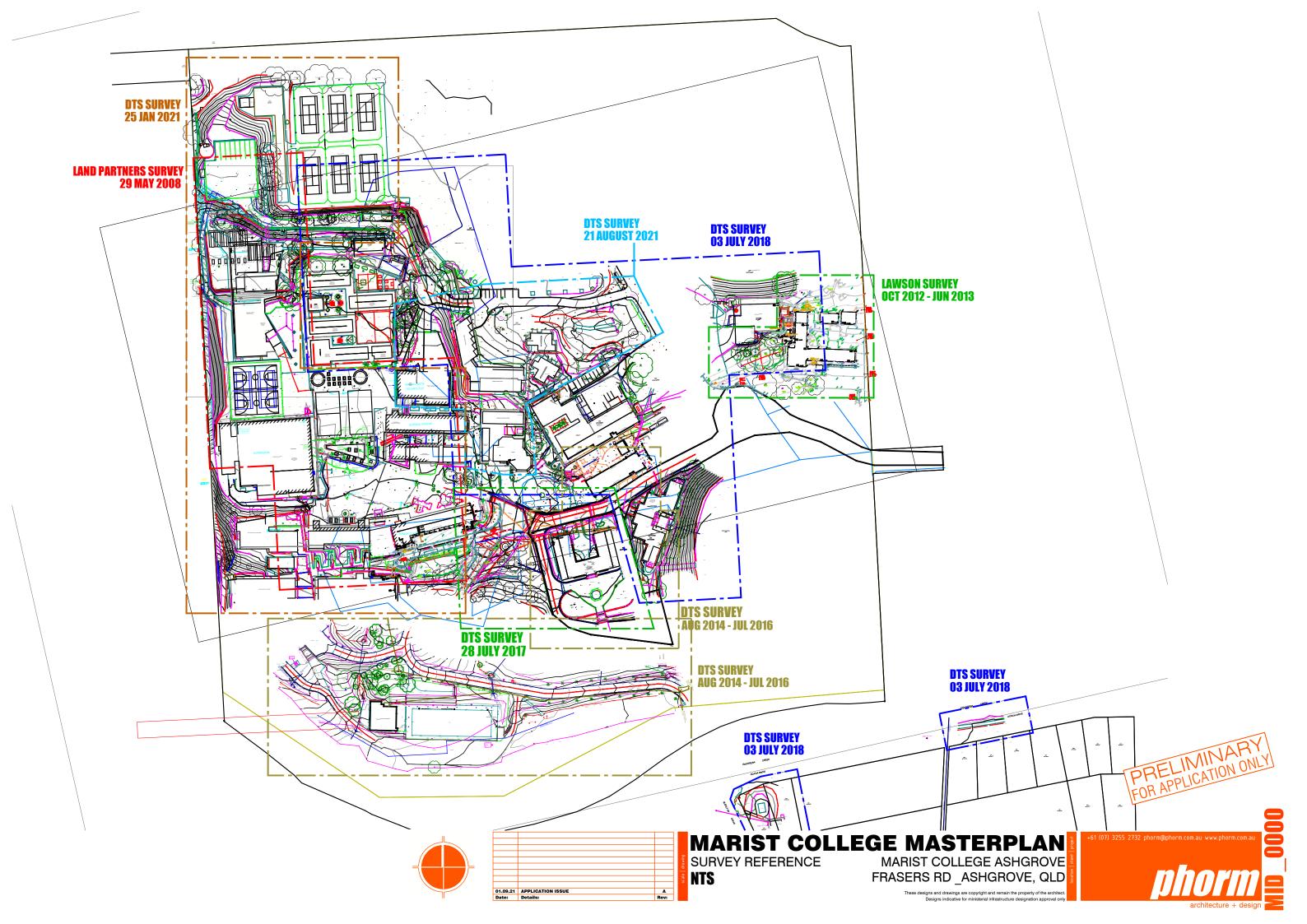
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and designating land for community infrastructure



# APPENDIX C

**Bushfire Hazard Assessment** 













### VEGETATION MANAGEMENT SCHEDULE Site Address: Marist College, Ashgrove, Qld

		Source: 1 of Fundamental Contains 1 of Funda	ow; MH = Medium Hollow; LH = Large		i ioliow,	l loili	птапа, ы	oli – Dila Ivesi, i	vosi, DL -	Total	cauci, i L -	, IL – Inple Lea	Idoi, IVIL II	Multi-leader, Ni	E Hoot Eax, Ci Evidence of cap i county	
				DBH 1	DBH 2	DBH 3	DBH 4	DBH 5	DBH 6	DBH	SPREAD	HEIGHT				
No.	STATUS	SCIENTIFIC NAME	COMMON NAME	[mm]	[mm]	[mm]			[mm]	[mm]	[m]	[m]	HEALTH	HABITAT	NOTES	TPZ [mm]
1	Retain	Corymbia citriodora subsp. variegata subsp. varieg	g Spotted Gum	880						880	4	22	Fair	6H, N	Tree limbs pruned, new growth. Birds	10560
2	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	250						250	4	23	Good		FS	3000
3	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	180	180					255	7	18	Fair		FS	3060
4	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	430						430	16	25	Good		FS	5160
5	Remove	Corymbia citriodora subsp. variegata	Spotted Gum	290						290	5	24	Good		FS	3480
6		Tipuana tipu	Tipuana	210						210	7	9	Good			2520
7		Corymbia citriodora subsp. variegata	Spotted Gum	350						350	8	24	Good		FS	4200
8		Corymbia citriodora subsp. variegata	Spotted Gum	310						310	4	24	Good		FS	3720
9		Corymbia citriodora subsp. variegata	Spotted Gum	160						160	5	12	Fair			1920
10	Retain	Jacaranda mimosifolia	Australian Indigo	90	120	150				213	8	6	Good			2556
11	***	Corymbia citriodora subsp. variegata	Spotted Gum	500						500	17	25	Good		FS	6000
12		Corymbia citriodora subsp. variegata	Spotted Gum	400						400	12	16	Good		FS	4800
13		Corymbia citriodora subsp. variegata	Spotted Gum	360						360	8	24	Good		FS	4320
14		Corymbia citriodora subsp. variegata	Spotted Gum	520						520	15	25	Good		FS	6240
15	Remove	Tipuana tipu	Tipuana	240						240	6	14	Good			2880
16 17		Eucalyptus microcorys Corymbia citriodora subsp. variegata	Tallowwood Spotted Gum	420 790						420 790	10	19 25	Good Good	SH	FS .	5040 9480
18		Eucalyptus siderophloia	Grey Ironbark	500						500	10	20	Good	ЭП		6000
19		Corymbia citriodora subsp. variegata	Spotted Gum	530						530	16	22	Good		Nest box FS	6360
20		Corymbia citriodora subsp. variegata  Corymbia citriodora subsp. variegata	Spotted Gum	570						570	17	25	Good		FS	6840
21		Corymbia citriodora subsp. variegata  Corymbia citriodora subsp. variegata	Spotted Gum	680						680	18	26	Good		IFS	8160
22		Angophora leiocarpa	Rusty Gum	390						390	7	18	Good		10	4680
23	Retain	Eucalyptus siderophloia	Grey Ironbark	710						710	16	26	Good			8520
24	100 000 00000	Eucalyptus siderophloia	Grey Ironbark	300						300	10	19	Good			3600
25	11	Corymbia citriodora subsp. variegata	Spotted Gum	270						270	9	22	Good			3240
26		Corymbia citriodora subsp. variegata	Spotted Gum	360						360	12	24	Good			4320
27		Eucalyptus propinqua	Grey Gum	270						270	8	11	Good			3240
28		Corymbia citriodora subsp. variegata	Spotted Gum	410						410	15	24	Good		FS	4920
29		Corymbia citriodora subsp. variegata	Spotted Gum	440						440	16	24	Good		FS	5280
30		Corymbia citriodora subsp. variegata	Spotted Gum	410						410	12	19	Good		FS	4920
31		Corymbia citriodora subsp. variegata	Spotted Gum	180						180	3	18	Good			2160
32		Acacia disparrima	Hickory Wattle	150						150	4	8	Good			1800
33	Retain	Eucalyptus siderophloia	Grey Ironbark	400						400	10	18	Good			4800
34	Retain	Angophora leiocarpa	Rusty Gum	280	270					389	8	15	Good			4668
35	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	440						440	10	25	Good			5280
36	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	260						260	10	23	Good			3120
37	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	300						300	14	19	Good			3600
38	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	220						220	8	22	Good			2640
39	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	230						230	6	22	Good			2760
40	Retain	Corymbia citriodora subsp. variegata	Spotted Gum	290						290	8	16	Good			3480
41	Retain	Macaranga tanarius	Macaranga	240						240	8	10	Good			2880
42	Retain	Koelreuteria paniculata	Golden Rain Tree	180						180	6	8	Good			2160
43	Retain	Lophostemon confertus	Brush Box	150	170					227	5	18	Good			2724
44	Retain	Lophostemon confertus	Brush Box	260						260	5	18	Good			3120
45	Retain	Macaranga tanarius	Macaranga	150	150	170	200			338	6	14	Good			4056
46	Retain	Macaranga tanarius	Macaranga	180	180	190	170			361	8	14	Good			4332
47	Retain	Macaranga tanarius	Macaranga	250						250	8	16	Good			3000
48		Macaranga tanarius	Macaranga	310						310	8	16	Good			3720
49	Retain	Mallotus discolour	Yellow Kamala	240						240	5	15	Good			2880
50		Mallotus discolour	Yellow Kamala	190						190	5	14	Good			2280
51	Retain	Mallotus discolour	Yellow Kamala	190						190	6	13	Good			2280
52		Melaleuca viminalis	Weeping Bottlebrush	150	60	70				177	4	11	Poor			2124
53		Melaleuca styphelioides	Willow Bottlebrush	700						700	7	12	Good			8400
54		Platanus acerifolia	London Plane	200						200	5	5	Good			2400
55	Retain	Araucaria cunninghamii	Hoop Pine	510						510	6	17	Good			6120
56		Araucaria cunninghamii	Hoop Pine	560						560	8	15	Good			6720
57	Retain	Araucaria cunninghamii	Hoop Pine	710						710	8	15	Good			8520
58	Retain Retain	Cupaniopsis anacardioides Cupaniopsis anacardioides	Tuckeroo Tuckeroo	300 200						300 200	6	7	Good Good			3600 2400
59			LLUCKEROO	1 / (1()						7(11)			1-000		1	/400

LEGEND / NOTES

NOTE: - SURVEY PLAN



ISSUE	DESCRIPTION	DATE
Α	FOR ISSUE	27/08/20

S521036

MARIST COLLEGE ASHGROVE C/- URBICUS

MARIST COLLEGE

142 FRASERS ROAD ASHGROVE

VEGETATION RETENTION PLAN SCHEDULE SHEET 1 OF 2

S521036\_VRP\_005

A3 SAJ

2/265 Sandgate Road Albion Qld 4010



ph 3505 3053 ph 3356 0550

m 0481 367 555 www.s5consulting.com.au ABN 82 440 704 793

ENVIRONMENTAL

#### VEGETATION MANAGEMENT SCHEDULE Site Address: Marist College, Ashgrove, Qld

Codes: FS = Fauna Scratches; SH = Small Hollow; MH = Medium Hollow; LH = Large Hollow; T = Termitaria; BN = Bird Nest; DL = Double leader; TL = Triple Leader; ML = Multi-leader, NB = Nest Box, SF = Evidence of Sap Feeding															
									Total						
							DBH 5		DBH	SPREAD					
		MMON NAME	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[m]	[m]	HEALTH	HABITAT	NOTES	TPZ [mm]
61 Retain	,	otted Gum	1130						1130	30	27	Good	4H +3SH	Corella nesting in hollow	13560
62 Retain	N. (1994) 1994 (1994) 1994 (1994) 1994 (1994) 1994 (1994) 1994 (1994) 1994 (1994) 1994 (1994) 1994 (1994) 1994	bbeck	700	200					700	30	16	Good			8400
63 Retain		lipwood	320	200					378	/	10	Good			4536
64 Remove	and the state of t	ckeroo	350						350	6	10	Good	0.411.0011		4200
65 Retain	The state of the s	otted Gum	1000	0.10	400				1000	20	27	Good	3MH, 2SH	Scaly breasted lorikeet nesting in hollow	12000
66 Retain		lipwood	200	210	180	140			369	7	8	Good			4428
67 Retain		lipwood	190	180	200				330	7	9	Good			3960
68 Retain	The second section of the second seco	bbeck	380	450	480	370			846	16	18	Good			10152
69 Retain	Programme and the second secon	ush Box	350						350	10	9	Good			4200
70 Retain	The state of the s	ik Bloodwood	400						400	12	17	Good			4800
71 Retain	21	rest Red Gum	940						940	16	26	Good			11280
72 Remove		ckeroo	400	330					519	8	5	Good			6228
73 Retain	31	rest Red Gum	880						880	15	26	Good	LH		10560
74 Retain		rest Red Gum	1250						1250	34	26	Good			15000
75 Remove		eping Bottlebrush	420	380					567	8	15	Good			6804
76 Remove	To 1981 No. 1982 No.	opard Tree	430						430	14	15	Good			5160
77 Remove		opard Tree	250						250	7	14	Good			3000
78 Remove	Corymbia intermedia Pin	ik Bloodwood	820						820	22	21	Good			9840
79 Retain	Albizia lebbeck Leb	bbeck	810						810	32	18	Good			9720
80 Retain	Casuarina glauca Sw	amp She-oak	600						600	15	19	Good			7200
81 Retain	The superior of the superior of transfer and	ow's Ash	610						610	14	19	Good			7320
82 Retain		nall-leaved lily-pilly / Riber	320	190					373	8	12	Good			4476
83 Retain		nall-leaved lily-pilly / Riber	180	140	100	100			269	8	12	Good			3228
84 Retain		nall-leaved lily-pilly / Riber	200	220	230				376	8	12	Good			4512
85 Retain		nall-leaved lily-pilly / Riber	280	300					411	8	12	Good			4932
86 Retain		otted Gum	220						220	6	17	Good			2640
87 Retain		otted Gum	230						230	5	19	Good			2760
88 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	310						310	7	19	Good			3720
89 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	170	120					209	6	15	Good			2508
90 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	210						210	6	18	Good			2520
91 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	210						210	7	18	Good			2520
92 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	160						160	6	16	Good			1920
93 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	380						380	14	23	Good		FS	4560
94 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	220						220	6	19	Good			2640
95 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	180						180	7	16	Good			2160
96 Retain		sty Gum	280						280	7	13	Good		FS	3360
97 Retain		otted Gum	460						460	17	19	Good	Nest	FS	5520
		otted Gum	830						830	19	24	Good	Possible MH	FS	9960
99 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	410						410	10	21	Good		FS	4920
100 Retain	Corymbia citriodora subsp. variegata Spo	otted Gum	710						710	15	25	Good	Possible SH	FS	8520
102 Retain		otted Gum	560						560	14	16	Good	Possible Sh	FS	6720
103 Retain		otted Gum	730						730	19	25	Good		FS	8760
105 Remove		ple Species	500						500	11	10	Good		FS	6000

LEGEND / NOTES

NOTE: - SURVEY PLAN



- 1	ISSUE	DESCRIPTION	DATE
	Α	FOR ISSUE	27/08/202
- 1			

S521036

MARIST COLLEGE ASHGROVE C/- URBICUS

MARIST COLLEGE

142 FRASERS ROAD ASHGROVE

VEGETATION RETENTION PLAN SCHEDULE SHEET 2 OF 2

DRAWING NO.

S521036 VRP 006

- 1	0021000_1111 _000									
	SCALE	SHEET SIZE	DRAWN	APPROVED						
	N.T.S.	A3	SAJ	RS						

2/265 Sandgate Road Albion Qld 4010



ph 3505 3053 ph 3356 0550 m 0481 367 555 www.s5consulting.com.au ABN 82 440 704 793

ENVIRONMENTAL

Bligh Tanner Pty Ltd ABN 32 061 537 666 blightanner@blightanner.com.au blightanner.com.au

+ Locations
Brisbane
Sydney

+ Directors
Paul Callum
Paul Easingwood
Cameron Riach
Alan Hoban
Nathan Scott



Date. 25 August 2021 Ref. No. 2021.0318

To Whom It May Concern

Subject: Marist College Ashgrove Ministerial Infrastructure Designation – Engineering Matters

Marist College Ashgrove is seeking approval for a Ministerial Infrastructure Designation (MID) over the school's campus to provide the foundation for strategic growth and redevelopment of the campus over the next 10 years to provide an enhanced learning environment that makes more efficient use of the site.

This letter introduces key engineering matters relevant to the site.

#### **Flooding**

The southern boundary of the site is affected by creek flooding associated with Enoggera Creek (refer Figure 1). All new building works will need to comply with relevant flood planning levels. While the proposed masterplan does not show any works within the flood extent, should any works occur within the mapped flood extents, a flood impact assessment may need to be undertaken.

The Glenlyon Drive access appears to be impeded by floodwaters under major events, however alternative access is available via Moola RD and O'Connell Drive.

The site is unlikely to need flood detention given there is only a modest change in impervious surfaces. The key stormwater management issue is therefore stormwater quality, as the new works will need to comply with best practice stormwater management targets as specified in the State Planning Policy.

An ideal stormwater management strategy would be one which:

- Can be implemented in a staged manner as the masterplan is progressively implemented, rather
  than relying on a single end-of-pipe treatment system that would need to be delivered with the first
  stage of development.
- Is incorporated into site landscaping and uses raingardens and other green infrastructure, so that the strategy adds to the amenity of the school while having low ongoing maintenance costs.
- Provides opportunities for additional learning benefits, such as helping teach students about the natural watercycle.





Figure 1 Site flooding (Source: BCC eBiMap)

#### **Services**

The site appears to be well serviced with key utilities including water supply, sewer and stormwater (refer Figure 2). Network capacity assessments will need to be undertaken in due course, however it is unlikely that the modest increase in demands on those networks would trigger the need for any external upgrades.



Figure 2 Key utilities (Source: BCC eBiMap)



This letter provides preliminary advice only and further technical investigation will be necessary to validate the matters noted in this letter.

Yours faithfully,



Director, Civil and Water BLIGH TANNER PTY LTD





# **Heritage Information**

Please contact us for more information about this place: heritage@brisbane.qld.gov.au -OR- phone 07 3403 8888



Marist College tower block & memorial gates

## **Key details**

Also known as	St. Jude's Seminary Mission House
Addresses	At 182 Frasers Road, Ashgrove, Queensland 4060
Type of place	School, Residence (group), Institutional / group housing, Monument / memorial
Period	Interwar 1919-1939, Postwar 1945-1960
Style	Spanish Mission
Lot plan	L364_SP272699; L811_RP18735; L810_RP18735; L809_RP18735; L365_SP272699

Key dates	Local Heritage Place Since — 30 October 2000 Date of Information — November 2012
People/associations	Hennessy, Hennessy and Co. (Architect)
Criterion for listing	(A) Historical; (E) Aesthetic; (H) Historical association

Constructed in 1931 by prominent architects Hennessy, Hennessy and Co, this picturesque Spanish Mission building was first used as a mission house and seminary by the Society of the Missionaries of the Most Holy Eucharist, associated with the Catholic Church. Construction of the building provided employment during the Depression as part of a government sponsored programme. After the mission closed in the late 1930s, the building was converted into a student boarding house for the Marist Brothers College at Rosalie who erected memorial gates in front of the building in 1950 to honour the old boys who served in World War II. Since 1940, this building has been in continuous use as a student boarding house and has played an important role in the lives of many students at the College.

## **History**

This imposing tower building was constructed in 1930-31 as the mission house and seminary for the Society of the Missionaries of the Most Holy Eucharist, a Catholic society devoted to mission work in the Philippines. The seminary was named St. Jude's.

In October 1928 the Rev. Walter S. Cain, the founder of the Most Holy Eucharist Society purchased for ?4 400 a deceased estate of almost 44 acres above Enoggera Creek at Ashgrove. The property, formerly the country retreat of Dr. Frederick Taylor, had been closed since his death some ten years earlier. The land had been in the Taylor family since 1889, and was originally part of the holdings of early Ashgrove settler, Alexander Fraser. The Society was formerly based at two residences on Gregory Terrace purchased during the 1920s. The convent of the Sisters associated with the Missionaries of the Most Holy Eucharist was officially opened on these premises by Archbishop James Duhig in July 1928.

Soon after purchase of the property, the society moved to their new residence. The existing house on the site was extended and modified to provide a chapel as well as classrooms and accommodation for the students of the seminary. Students cleared and improved the grounds. Cain engaged the architectural firm of Hennessy, Hennessy and Co. to design a spacious mission house with a high white tower.

The firm of Hennessy, Hennessy and Co. was established in Brisbane in 1916 as Hennessy, Hennessy and F.R. Hall. Jack Hennessy, the senior partner, was a personal friend of Archbishop Duhig. The firm received many commissions from the Catholic Church in the 1920s including churches at Clayfield (1925), Nundah (1926) and Toowong (1930). Other catholic buildings designed by the firm, which developed its own Romanesque style of ecclesiastical architecture, were Villa Maria (1927), Stuartholme Convent (1920), St. Columban's Christian Brother College, Nundah (1928) additions to St. Stephen's Cathedral (1925) and the proposed Holy Name Cathedral. Hennessy, Hennessy and Co. were also responsible for Newspaper House (1930) and the Forgan Smith building of the University of Queensland (1939).

The mission house was constructed in painted cement on brick by Concrete Constructions at a cost of ?20 000. This included the erection of a retaining wall, a pair of bronze entrance gates manufactured in Brisbane and a concrete bridge across Enoggera Creek allowing access for which permission was granted by the Brisbane City Council. A water tank was included in the tower. Sculptures in the main courtyard were commissioned from the marble studios of Carrara, Italy. The final cost for the new seminary was ?25 000. The mission house was to be the first stage of an ambitious complex including several buildings connected by arcades, an orchard and model farm, and recreation grounds.

Through the government sponsored programme to provide "socially redeeming" employment during the Depression, unemployed workers were used to build the road leading to the seminary. Hostility among some of the workers towards Walter Cain resulted in buckets of cement being thrown into the new toilets. This was possibly caused by resentment at the amount of money being spent on the building during a period of severe economic hardship and exacerbated by sectarian divisions.

The foundation stone for the mission house was laid by Duhig on 14 October 1930. A year later, the Apostolic Delegate, Dr. Cattaneo, travelled from Sydney to open the new seminary on 18 October 1931. Dr. Cattaneo was assisted by Duhig who praised the achievements of Father Cain in extending the missionary work of the Catholic Church and erecting such a "beautiful building" on the property. Duhig added that the Catholic Church at Ashgrove had been enlarged three times to accommodate its growing population and that Ashgrove was probably the most progressive place in the city of Brisbane.

At the time of the construction of the mission house, Ashgrove was developing at a rapid rate. The sale of the St. John's Wood and Glenlyon residential estates and the extension of the tramline to the suburb in the mid 1920s stimulated growth in the area. The residential boom at Ashgrove was further encouraged by the provision of electricity and reticulated water during the 1920s. When the 44 acre site was purchased by Cain in the late 1920s, Ashgrove was considered to be prime real estate due to its picturesque natural surroundings and proximity to the city.

Soon after the opening of St. Jude's Seminary, the Sisters associated with the Society moved from their convent at Gregory Terrace to their new accommodation in the tower of the mission house. Both men and women, including some from the Philippines, were trained at the seminary during the 1930s, including two priests who were ordained by Duhig. However, in January 1938, an order from the Apostolic Delegate in Sydney, Monsignor John Panico, suppressed the male branch of the society and banned publication of its magazine, Filipinas. Several months later the nuns were also suppressed. The seminary was closed, the property transferred to the Roman Catholic Queensland Regional Seminary and the assets of the society dispersed by Panico. The reasons for the closure of St. Jude's were not fully disclosed. It has been suggested that the fundraising and training methods of the society were seen as irregular and that there was some resentment within the Catholic Church regarding the wealth of the society.

In 1939, Panico offered the site at St. Jude's to the teaching order of the Marist Brothers, who were experiencing overcrowding of students at their Rosalie school. On 16 June 1939, negotiations between Duhig and the Marist Brothers were completed and on 7 August ownership of the site transferred to the Brothers for ?12 000. Mr Drinan, the Brisbane partner of Hennessy, Hennessy and Co. was engaged to oversee alterations to the tower building. The small cells of the nuns were removed to allow dormitories for boarders. Thiess Brothers were awarded the contract for the levelling of the sites of the oval, old tennis courts and swimming pool. The new school of the Marist Brothers was opened on 30 January 1940.

On 17 September 1950, the World War II Memorial Gates, situated at the Dorrington end of the College's playing fields, were officially opened and blessed. The steel gates, which are mounted on pillars of Scandinavian and Queensland granite, are in memory of Marist College Old Boys who fought in World War II. 32 names appear on the gates, which have special significance to those associated with the College.

The tower building continues to be used to house boarders at the Marist College. It is a well-known local landmark that signifies more than 60 years of association with the Catholic Church in Brisbane.

## Statement of significance

#### Relevant assessment criteria

This is a place of local heritage significance and meets one or more of the local heritage criteria under the Heritage planning scheme policy of the *Brisbane City Plan 2014*. It is significant because:

#### **Historical**

**CRITERION A** 

The place is important in demonstrating the evolution or pattern of the city's or local area's history

for the evidence the Tower Block provides of the development of Ashgrove during the interwar years.

#### **Aesthetic**

**CRITERION E** 

The place is important because of its aesthetic significance

as a fine example of an Interwar Spanish Mission style building.

#### Historical association

**CRITERION H** 

The place has a special association with the life or work of a particular person, group or organization of importance in the city's or local area's history

as a memorial site for Marist College old boys who fought in World War II, for the important role the Tower Block has played in the lives of generations of students of Marist College, and as an example of a building designed by prominent architectural firm Hennessy, Hennessy and Co.

## References

- 1. Ashgrovian
- 2. Boland, T.P. James Duhig. St Lucia: U of Q Press, 1986
- 3. Brisbane Courier, 19 Oct 1931
- 4. Catholic Advocate, 16 Oct 1930, 23 Oct 1930, 22 Oct 1931
- 5. Farelly, Mark., Canvas of Dreams: Marist College Ashgrove 1940-1990. Ashgrove: Marist Bros., 1990
- 6. Paul Ferrier, "The Golden Period of Catholic Progress Archdioceses of Brisbane 1912-1927", B.Arch Thesis, Sept 1986
- 7. Gardiner, Fiona, *Register of significant twentieth century architecture* (Australian Heritage Commission, 1988)
- 8. Titles Office Records
- 9. Watson, Donald & Judith McKay, A Directory of Queensland Architects to 1940, UQ Library, 1984

## **Copyright Brisbane City Council**

**Note:** This information has been prepared on the basis of evidence available at the time including an external examination of the building. The statement of significance is a summary of the most culturally important aspects of the property based on the available evidence, and may be re-assessed if further information becomes available. The purpose of this information is to provide an informed evaluation for heritage registration and information. This does not negate the necessity for a thorough conservation study by a qualified practitioner, before any action is taken which may affect its heritage significance.

**Information prepared by** — Brisbane City Council (page revised March 2020)



Dedicated to a better Brisbane

#### Contacts list

#### Stakeholder Contacts

1. Native Title Party and/or Traditional Owners for the area:

Cultural Heritage Body – Turrbal Association

(as shown on QLD Gov. Department of Aboriginal and Torres Strait Islander Partnerships – Cultural Heritage Database and Register).

#### **Contact Details:**

Turrbal Association Inc

PO Box 3261, South Brisbane QLD 4101

Phone: (07) 5432 3699 Mobile: 0408 265 656

Email: turrbal@dakibudtcha.com.au

Email: info@turrbal.com.au

2. Distributor - Retailer (where not part of the local government)

#### **Queensland Urban Utilities**

#### **Contact Details:**

**QUU Development Services** 

GPO Box 2765, Brisbane QLD 4001

Phone: (07) 3432 2200 (8:30am – 4:30pm weekdays)
Email: developmentenguiries@urbanutilities.com.au

3. Local, State & Federal elected members

#### Local - Enoggera Ward

#### **Contact Details:**

Councillor Andrew Wines

Enoggera Ward Office – 102 Samford Road (Cnr Cole Street), Alderley QLD 4051

Phone: (07) 3407 2510 Fax: (07) 3407 2515

Email: enoggera.ward@bcc.qld.gov.au

Website: www.andrewwines.com

#### State - Electoral District of Ferny Grove

#### **Contact Details:**

Hon. Mark Furner

PO Box 262, Ferny Hills DC QLD 4055

Phone: (07) 3535 7100

Email: Ferny.Grove@parliament.qld.gov.au

#### Federal – Member for Brisbane, QLD

#### **Contact Details:**

Hon, Trevor Evans MP

Trevor.Evans.MP@aph.gov.au

Electorate Office (Principle Office) -

349 Sandgate Road, Albion QLD 4010

PO Box 143, Albion DC QLD 4010

Phone: (07) 3862 4044

Parliament Office -

PO Box 6022, House of Representatives, Parliament House Canberra ACT 2600

Phone: (02) 6277 2008

Fax: (02) 6277 8411

### Commonwealth Of Australia – Enoggera Army Barracks

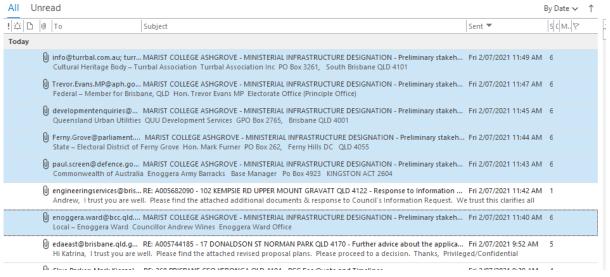
Commonwealth Of Australia C/- Defence Housing Australia

Attention: Paul Screen – Base Manager

paul.screen1@defence.gov.au

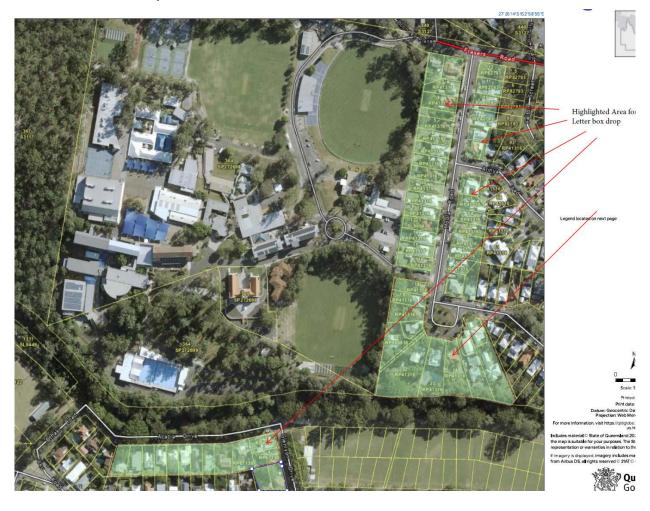
300 Samford Road, Enoggera

Po Box 4923 KINGSTON ACT 2604



Proof emails sent 2 July 2021

## Letterbox Box to Nearby Residents



#### Feedback from Marist College regarding stakeholder engagement

From: Bethany Halpin

 To:
 Mark Kierpal; "Paul Hotston"

 Cc:
 Nicola White; Bruce McPhee

 Subject:
 Neighbourhood information session

 Date:
 Friday, 23 July 2021 10:36:31 AM

Attachments: image001.png

Hello Mark,

By way of information for your report please note:

- 58 notices were delivered to residents on Monday 06/07/2021
- 5 residents attended the information session on Tuesday 13/07/2021
- Questions from the residents focused on parking and traffic.
- · Both the college and architect team committed to continuing to review this matter

Please let me know should you require any further information.

Bethany

#### **Bethany Halpin**

Community and Stakeholder Engagement

#### Marist College Ashgrove

142 Frasers Road, Ashgrove QLD 4060 PO Box 82, Ashgrove West QLD 4060

Mob: 0490 040 943 Phone: 07 3858 4548

Email: halpinb@marash.qld.edu.au

#### www.marash.qld.edu.au

Trustees of the Marist Brothers – Ashgrove T/A Marist College Ashgrove CRICOS Provider No: 00670F



## **MARIST COLLEGE ASHGROVE**



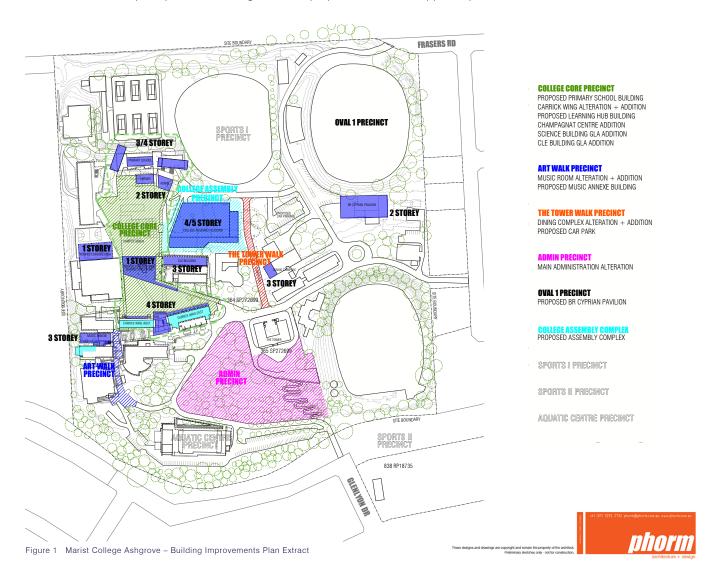
# PROPOSED MASTER PLAN / MINISTERIAL INFRASTRUCTURE DESIGNATION

#### LEARN MORE ABOUT THE PLANS FOR MARIST COLLEGE ASHGROVE

**Urbicus** 

Marist College Ashgrove has been nurturing and educating young men for the past 80 years. The College has developed a Master Plan to upgrade its facilities over the next decade and beyond, to ensure learning and teaching facilities meet the needs of current and future students. The College is currently preparing a Ministerial Infrastructure Designation (MID) to facilitate long term improvements to its Campus.

This Information Pamphlet provides an insight into the proposed works and approval process associated with the MID.



#### **Master Plan**

Based on the College's Strategic Plan 2020 – 2030 the College is improving and enhancing its Learning and Teaching Facilities with the Master Planning of the Campus to facilitate the following within the next 6 - 15 year period. The Master Plan is set to increase the colleges education Primary School Precinct and provide the ability to increase student numbers by 10% in the coming years. The proposal will also see the improvement of facilities, recycling and upgrading existing Classrooms to be refurbished to 21st Century standards and other ancillary structures.





#### **Fast Facts**

- Increase in student numbers
- Focus on upgrading Learning and Teaching Facilities
- College Core Precinct / Upper Campus

New Primary School Building

Upgrading existing Senior Learning Classrooms

New Learning Hub

Campus Green and passive recreational spaces

- New College Assembly Building
- Ancillary Buildings
- Review and improvements of traffic movements and access to the College
- Other modest improvements and upgrades



Figure 2 Aerial Photo / Source:Qld Globe

#### What is a MID?

A MID provides a planning approval pathway to a development approval under the Planning Act 2016. MIDs are a development application process which are assessed through the State government and decided by the Planning Minister. The MID approves a master plan proposal / development envelope and conditions that allows future works to occur. As part of the process applicants must undertake early engagement with key stakeholders to gather and respond to feedback received before the Planning Minister will endorse the ability to lodge a MID application with the State.

#### Approximate timeframes - MID



#### Neighbourhood Consultation / Presentation

You are invited to a presentation session at the College with staff and key consultants to explain the project.

When: Tuesday 13th July 2021 between 5:30 - 6.30 pm

Where: Tower Block - Entry via Moola or Frasers Road, Ashgrove

RSVP- Please register your attendance via https://www.trybooking.com/BSRHY

\*numbers are limited to meet COVID requirements.

The MID application and associated technical reports are currently being prepared in anticipation for an August lodgement. Early engagement is also being undertaken with the community and key stakeholders, government agencies, elected representatives and local indigenous groups. You will have an opportunity after the application has been lodged to make a formal submission to the Planning Minister as part of a 20 business day public consultation period. The assessment is likely be completed by the Minister by the end of 2021.

For more information visit www.marash.qld.edu.au



