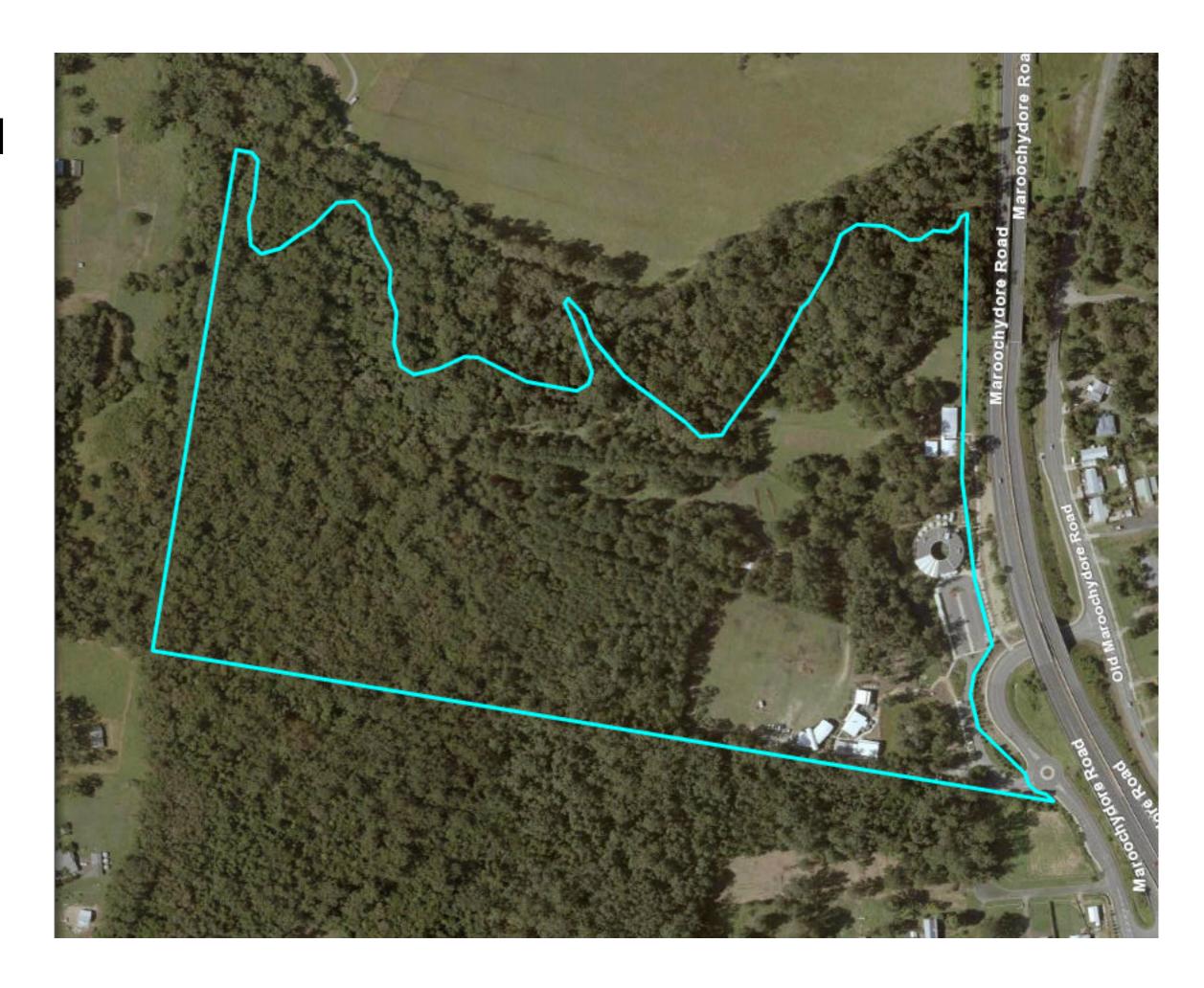
Montessori International College

Infrastructure Designation Scope

Master Plan 2019 - 2039





Contents

Document Control

Project No.: 1900400

Report Title: Infrastructure Designation

Scope 2019-2039

Client: Montessori International College

Author: PlaceSense

Approved by: Phillip Daffara

Date: 28 June 2019

Rev	Date	Description
5A	30.4.2018	Client Issue
5B	9.5.2019	Consultant Issue
5C	13.5.2019	Pre Lodgement Issue
5D	28.06.2019	Stakeholder
		Consultation
		ID Application Issue

"5" refers to MIC's proposed iteration of the master plan

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- f. Eco-design Strategies
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Attachments - refer Drawing Schedule

Part C: Scenic Landscape Assessment

Attachments – refer Drawing Schedule

Drawing Schedule

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Part A: Overview

a. Scope of this Document

This document provides a summary of scope to be included in the application for Infrastructure Designation with the Queensland Government Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP).

Project Control Group

Montessori International College (MIC)

- Principal Chiray Fitton
- Business Manager Grant Vayro

Consultants

- PlaceSense
- RPS
- HydraLogic
- Hayes Traffic Engineering
- TOD Consulting
- Mark Taylor Ecology

Campus Master Plan

MIC has worked with PlaceSense to develop a master plan for the college to 2039.

This proposed scope aims to make a significant contribution to the place vision of the college by achieving the following:

- Shift main campus northwards, away from Maroochydore Road Traffic noise to allow passive ventilation and permeable indoor – outdoor learning spaces; and
- A flood immune, green school that uses the site's natural assets as a living laboratory and learning resource.

b. The Campus

Montessori International College is located on a 22.66 hectare property in the Eudlo Creek catchment. Significant habitat is currently protected by a Vegetation Covenant Area totalling 9.78 Ha of the site.

Location

880-932 Maroochydore Road, Forest Glen, Qld 4556.

Property Description

Lot 9 SP251589

Land Ownership

Montessori International College Limited



Existing Development Approval

MCU120060.04 (Green Door Project).

Refer Master Plan Sheets 1200500 1-8 prepared by PlaceSense.

Attachment B: 1200500-1, MIC Campus Key Plan (12/07/2017)

c. Population

Student Population

(including boarders)

	2019	2020	2039
EY	88	88	92
Jnr	101	121	144
Primary			
Snr	62	76	174
Primary			
Adolescent	63	55	204
Snr	39	53	234
Secondary			
TOTAL	353	393	848
<u> </u>	•		

d. Parking

Existing Summary

	Cars	PWD	Informal	Total	Buses
PA	76	1	10	87	2
PB	70	2	28	100	0
PC			28	28	0
B.J	15	1		16	
TOTAL				231	2

B.J: Basement / undercroft parking space to future Building Site J (if required).

Boarding Population

(Adolescent Program + Carers)

	2019	2020	2039
Adolescents	0	0	40
Carers +	0	0	6
Specialists			
in			
Residence			
TOTAL			46

Cycle Provision

	2019 (extg)		2039	
Class:	3	1	3	1
PA [6]	30	2	30	2
Bldg I.3 [12]	6	0	6	0
PB [13]	0	0	30	2
subtotal	36	2	66	4
TOTAL	38		70	

Staff Population

	2019	2020	2039
Full time	46	50	103
equivalent staff			
Total Head Count	57	61*	TBC

^{*}Estimate

(Numbers include teaching and nonteaching staff excluding cleaning contractors)

Part A: Overview

Place Vision

MIC's Place Vision:

Place Teaches Us...

"To be an international benchmark for a green school, engaged within the locale's community and natural environment. The key eco-design principle underpinning the master planning process is that solutions grow out of place".

Integrated public artworks are an important strategy for MIC to create memorable and legible places of learning. The Montessori pedagogy sees place as a resource for learning and storytelling about the nature of the cosmos and humanity.

Based on the Whole-School Montessori Handbook (1999), the key design goals that inform the architectural expression of Montessori's theory of learning are to:

- Leave a legacy where the Pedagogy provides an undertone of order, beauty and grace thereby creating a distinct school identity within the community;
- Design the learning environment to reflect the developmental needs of the child and how that changes over time;
- Build and operate an environmentally sensitive school;
- Provide architecture that teaches and tells stories; and
- Create social spaces that nurture a sense of school community.

Eco-Design Strategies

MIC's community of parents, carers and teachers, facilitated by *FutureSense*; prioritised twelve ecological design strategies for the master planning and design process of the new green campus and its implementation. These principles were important in obtaining Green Door status by the Queensland State Government (January 2012).

Government (January 2012). Priority Design Value/Goal Environmental site planning

*

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3

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Orientation responds to climate

6

7

8

9

10

11

12

Natural Ventilation



Water Smart



Energy Smart

Healthy Materials Consider whole of life costs Adaptable, universal design Thermal Performance + green rooves Minimum waste - reduce and recycle Adaptive reuse of buildings and materials Use local suppliers

he achievement of a number of these trategies are being compromised by the transfer plan siting of

Biophilic Design Principles

Montessori College has adopted Biophilic Design Principles to achieve it aim of being a green, sustainable school.

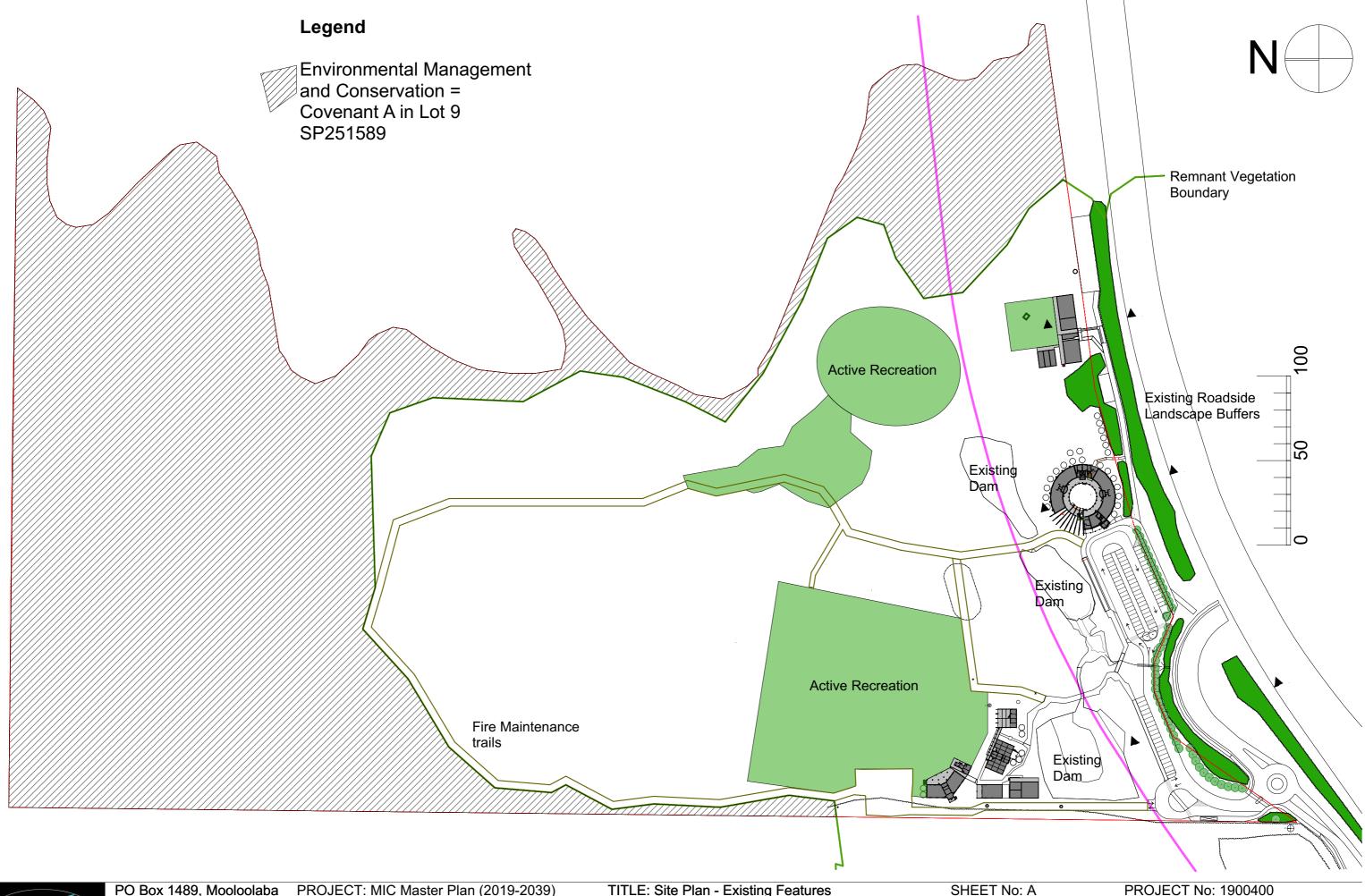
Existing and future buildings and landscapes respond to the natural assets of the site and the spatial program using the *Biophilic Design Principles* outlined in the guiding document:

Browning, W.D., Ryan, C.O., Clancy, J.O. (2014). **14 Patterns of Biophilic Design**. New York: Terrapin Bright Green Ilc.

Further guidance will be provided by:

(2018). **Biophilic Design Guidebook**, Seattle: International Living Future Institute

The achievement of a number of these strategies are being compromised by the current approved master plan siting of buildings in relation to the traffic noise from Maroochydore Road. This tension prevents natural ventilation of learning spaces.





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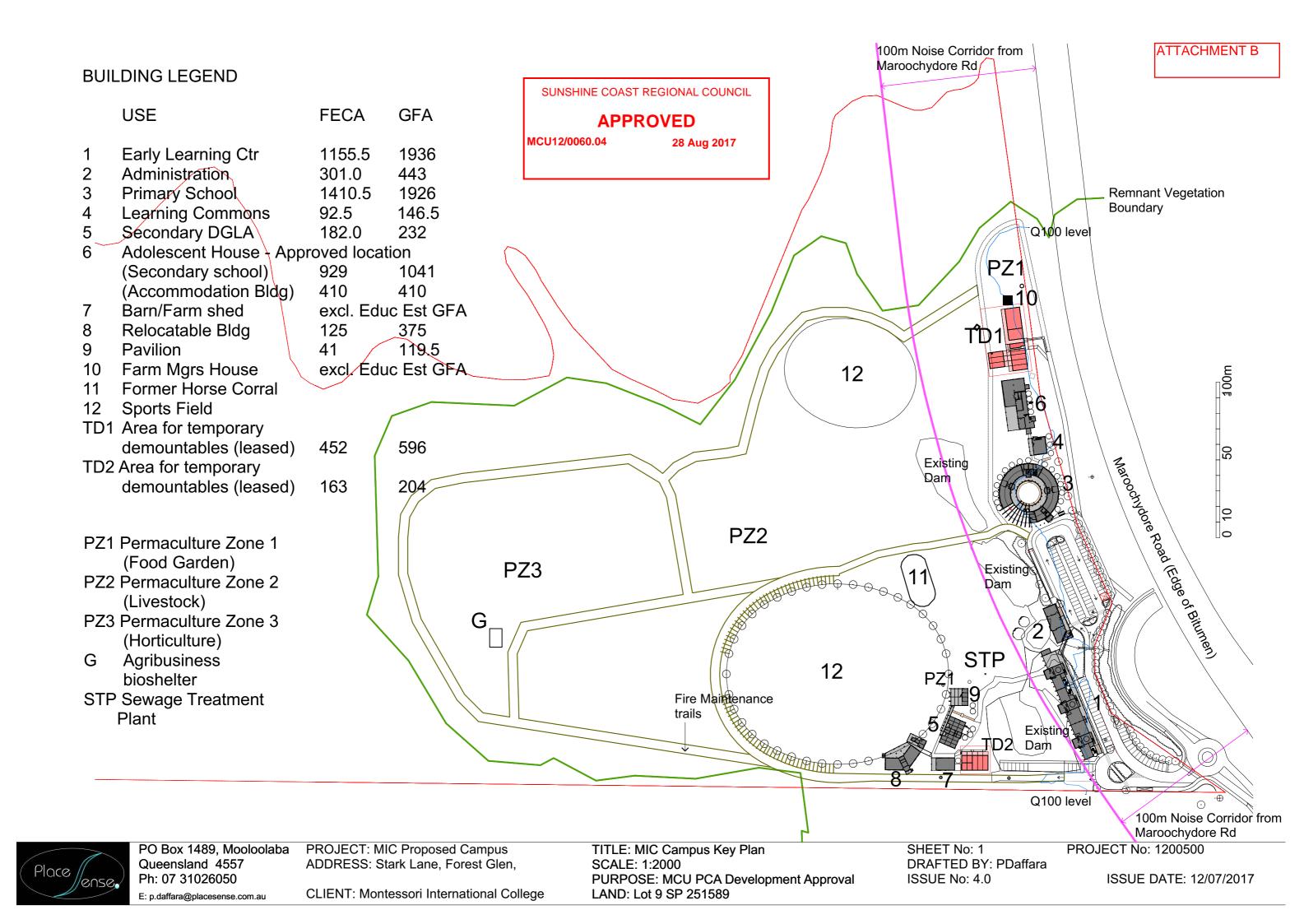
PROJECT: MIC Master Plan (2019-2039) ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

TITLE: Site Plan - Existing Features SCALE: 1:2000 PURPOSE: Planning Scheme Amdt LAND: Lot 9 SP 251589

DRAFTED BY: PDaffara ISSUE No: 5D

PROJECT No: 1900400

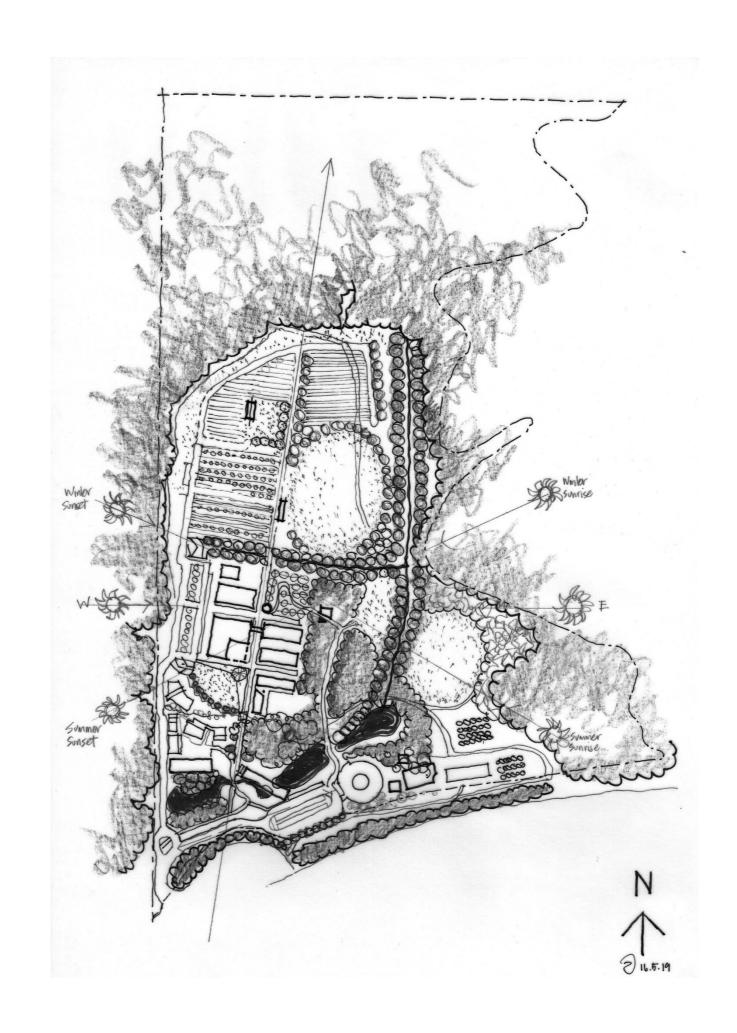


Part B: Proposed Master Plan

Montessori International College

Infrastructure Designation Scope

Master Plan 2019-2039

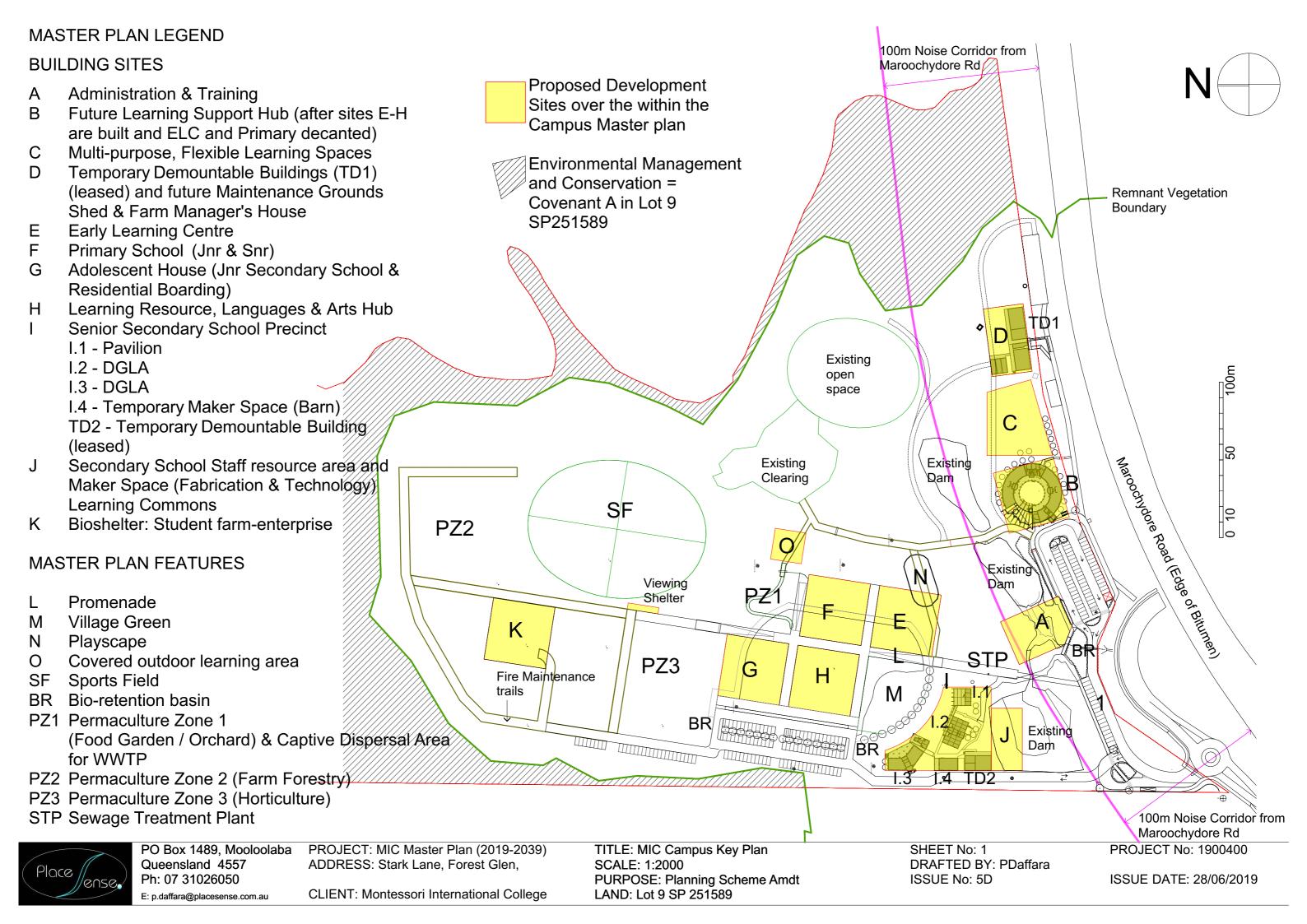




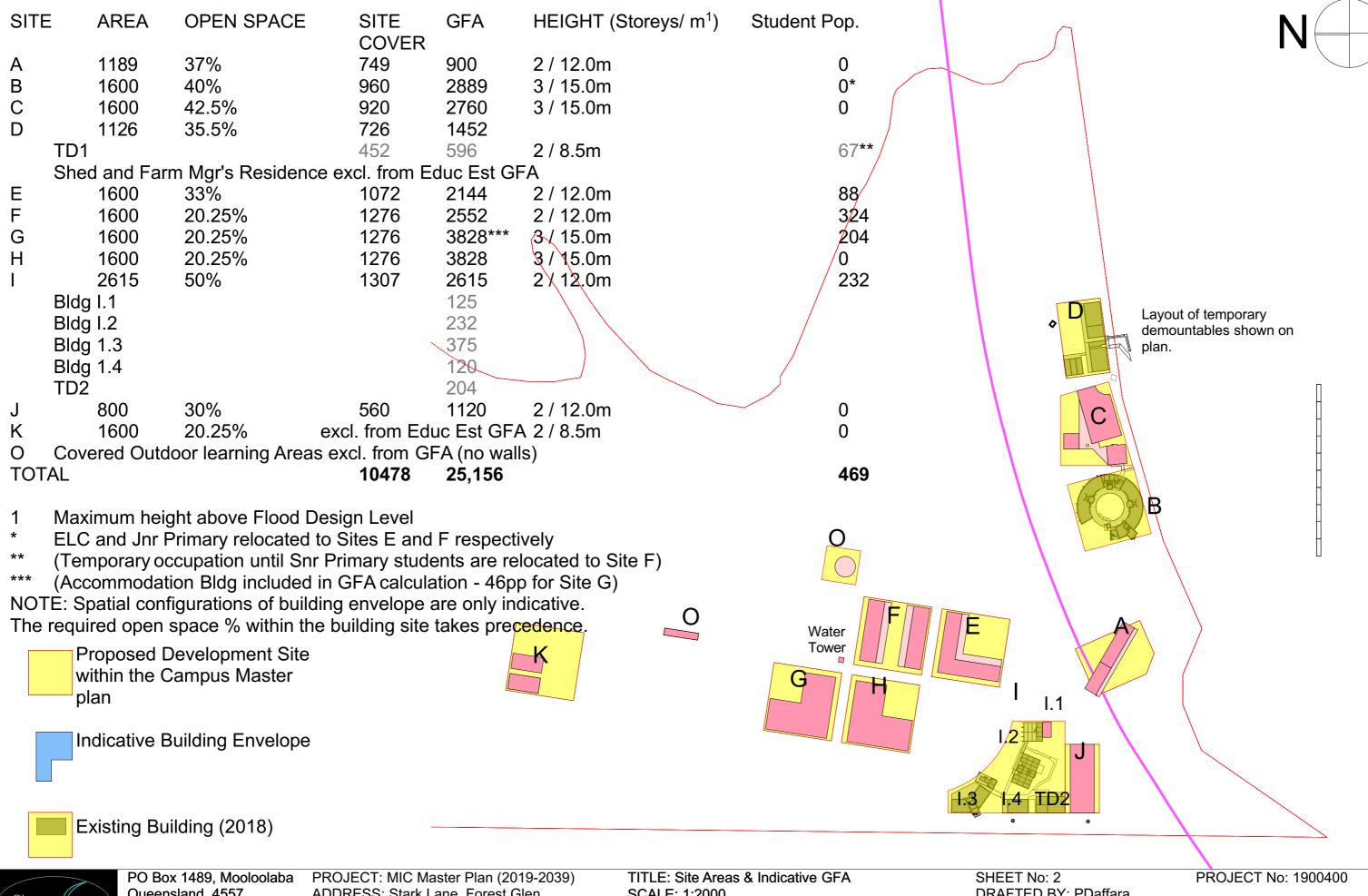




PlaceSense: Montessori International College Master Plan and Infrastracture Designation Scope 2019



BUILDING ENVELOPES



Queensland 4557 Ph: 07 31026050

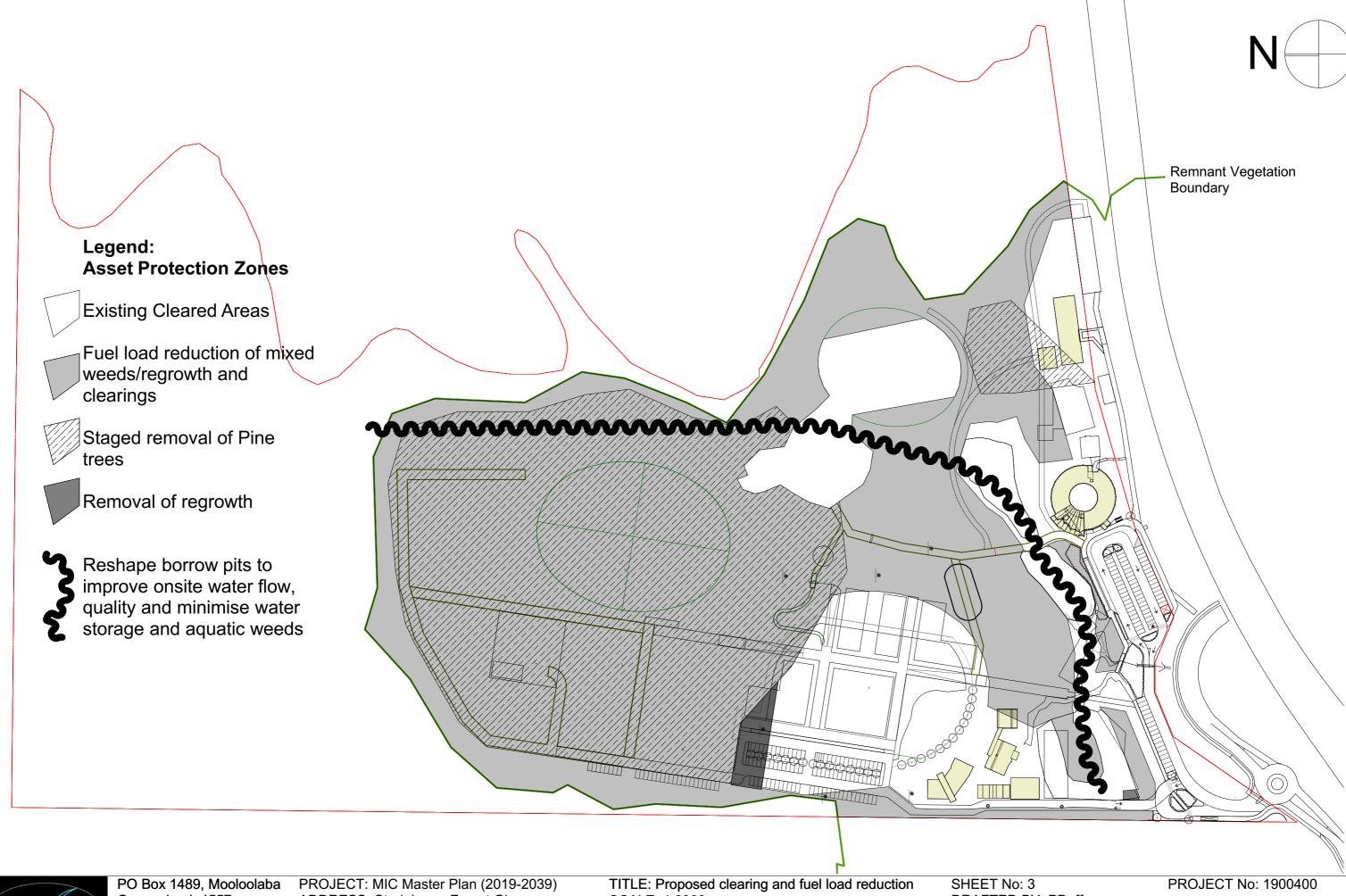
E: p.daffara@placesense.com.au

ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

SCALE: 1:2000 PURPOSE: Planning Scheme Amdt LAND: Lot 9 SP 251589

DRAFTED BY: PDaffara ISSUE No: 5D





Queensland 4557 Ph: 07 31026050

E: p.daffara@placesense.com.au

ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

SCALE: 1:2000

PURPOSE: Planning Scheme Amdt LAND: Lot 9 SP 251589

DRAFTED BY: PDaffara ISSUE No: 5D

Legend: Landscape Mgt. Areas

Cleared Areas

Bushfire & Remnant Vegetation buffer

Desired Genera: Flindersia, Acmena and Syzygium, Waterhousea, Alphitonia, Pipturis, Glochidion, Mallotus, Neolitsea, Polyscias and Omølanthus

Existing regrowth conserved weed removal + rehabilitation with fire retardant species

Desired Genera: Illawarra Flame Tree, Tulipwood, Golden Penda, Pink Euodia, Silky Oak. Dam embankments: Lomandra and Isolepsis

Waterway buffer revegetation Refer Rehabiliation Plan (2016)



Existing vegetated buffer in Stark Lane



Formal landscaping (1) Bio-filtration basin



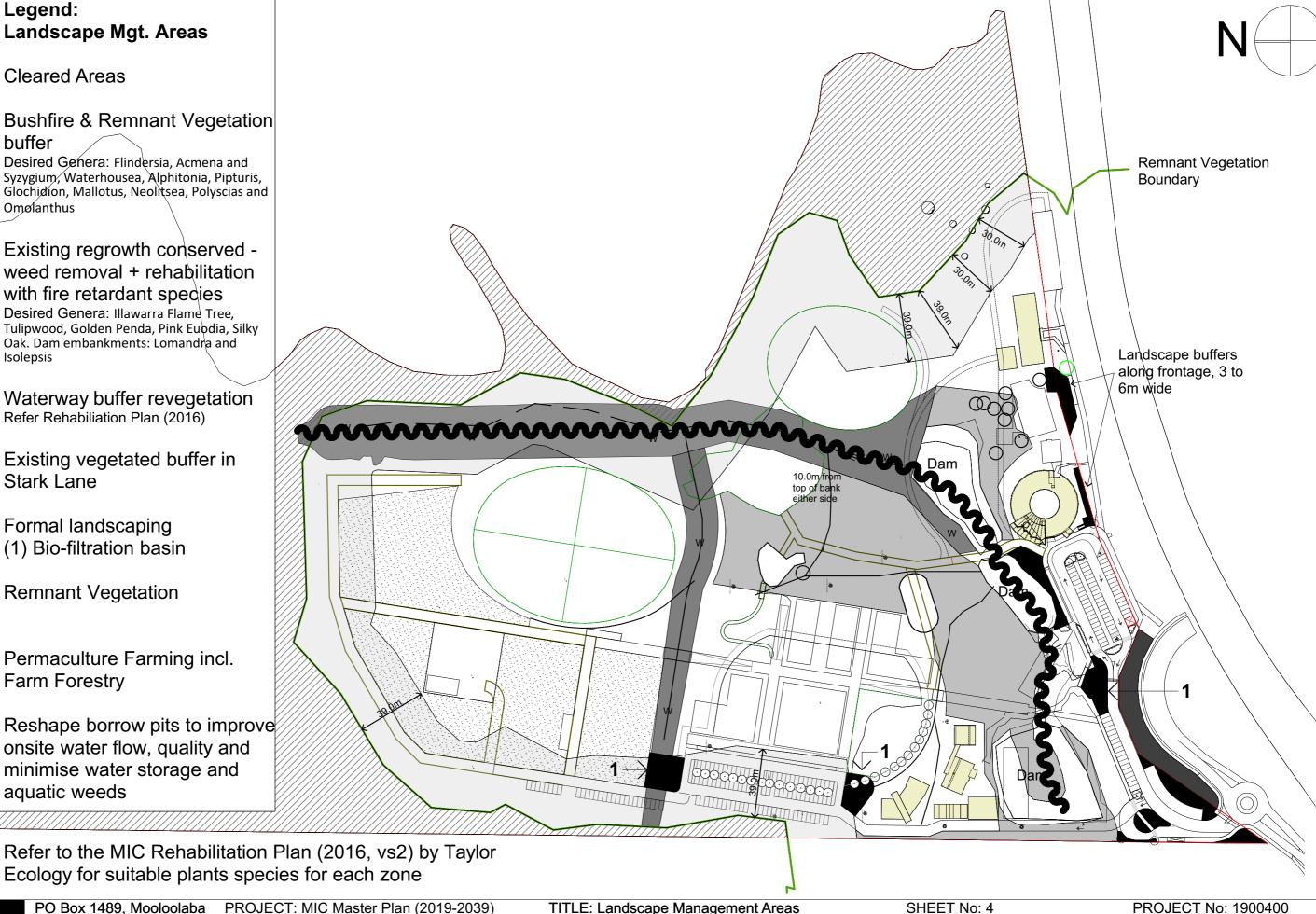
Remnant Vegetation

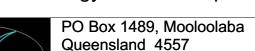


Permaculture Farming incl. Farm Forestry



Reshape borrow pits to improve onsite water flow, quality and minimise water storage and aquatic weeds





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ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

TITLE: Landscape Management Areas SCALE: 1:2000 PURPOSE: Planning Scheme Amdt

LAND: Lot 9 SP 251589

ISSUE No: 5D

DRAFTED BY: PDaffara

PROJECT No: 1900400





Ph: 07 31026050

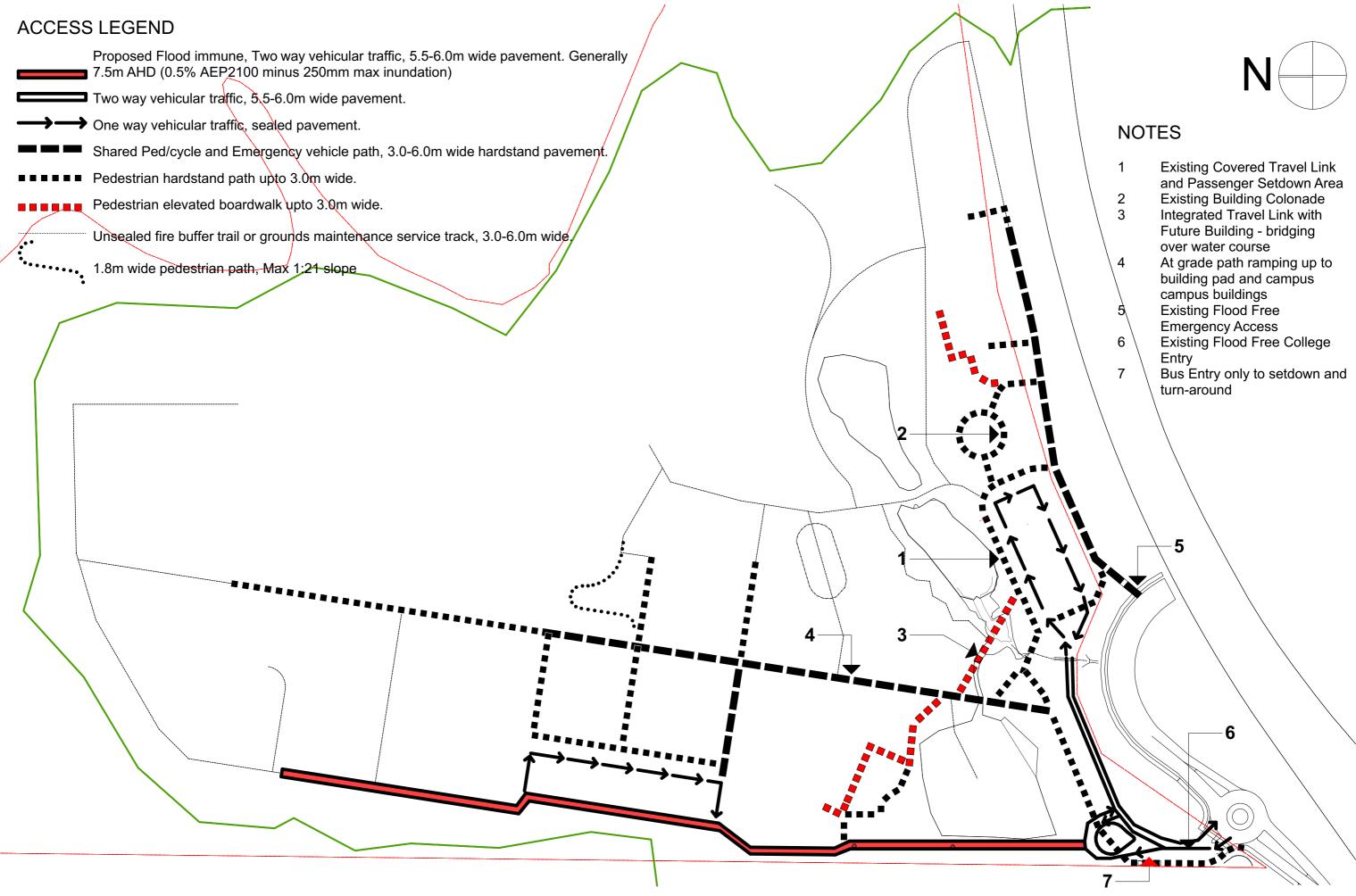
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CLIENT: Montessori International College

PURPOSE: Planning Scheme Amdt

LAND: Lot 9 SP 251589

ISSUE No: 5D





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PROJECT: MIC Master Plan (2019-2039) ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

TITLE: Access Diagram SCALE: 1:1500

PURPOSE: Planning Scheme Amdt LAND: Lot 9 SP 251589

DRAFTED BY: PDaffara ISSUE No: 5D

SHEET No: 6

PROJECT No: 1900400

ISSUE DATE: 10/07/2019

CAMPUS PARKING PLAN 145 sealed car parking spaces 58 unsealed overflow parking (grass reinforced) 4 motorcycle bays 36 Class 1 cycle spaces for students 4 Class 3 cycle lockers for staff CARPARK A (Total 81 Existing Spaces) 17 no. staff spaces incl. 10 no. WSUD grass reinforced spaces. 12 no. unlined drop-off/set-down spaces. 52 no. spaces incl. 1 no. disability parking bay. Loading zone. 2 no. Bus Setdown and turn-around. 5: Refuse Storage CARPARK B (Total 96 Spaces) 12 no. unlined drop-off/set-down spaces. 56 no. marked spaces incl. 1 no. disability parking bay + 4 no. motorcycle bays. 28 no. unsealed WSUD grass reinforced overflow parking spaces for events. CARPARK C (Total 28 Spaces) 10: 20 no. unsealed WSUD grass

reinforced overflow parking spaces forevents.

11: 8 no. marked car spaces for the agribusiness site.

CYCLE PROVISION

- Cycle Parking 30 no. Class 3 spaces and 2 no. Class 1 Lockers for staff (Cobra "EcoPark" EP2).
- 12: Existing 6 no. undercover bike racks for Snr. School.
- Possible location to decentralise cycle provision from the existing facilities at front entrance - Refer Note (6) and add 2 no. Class 1 Lockers.





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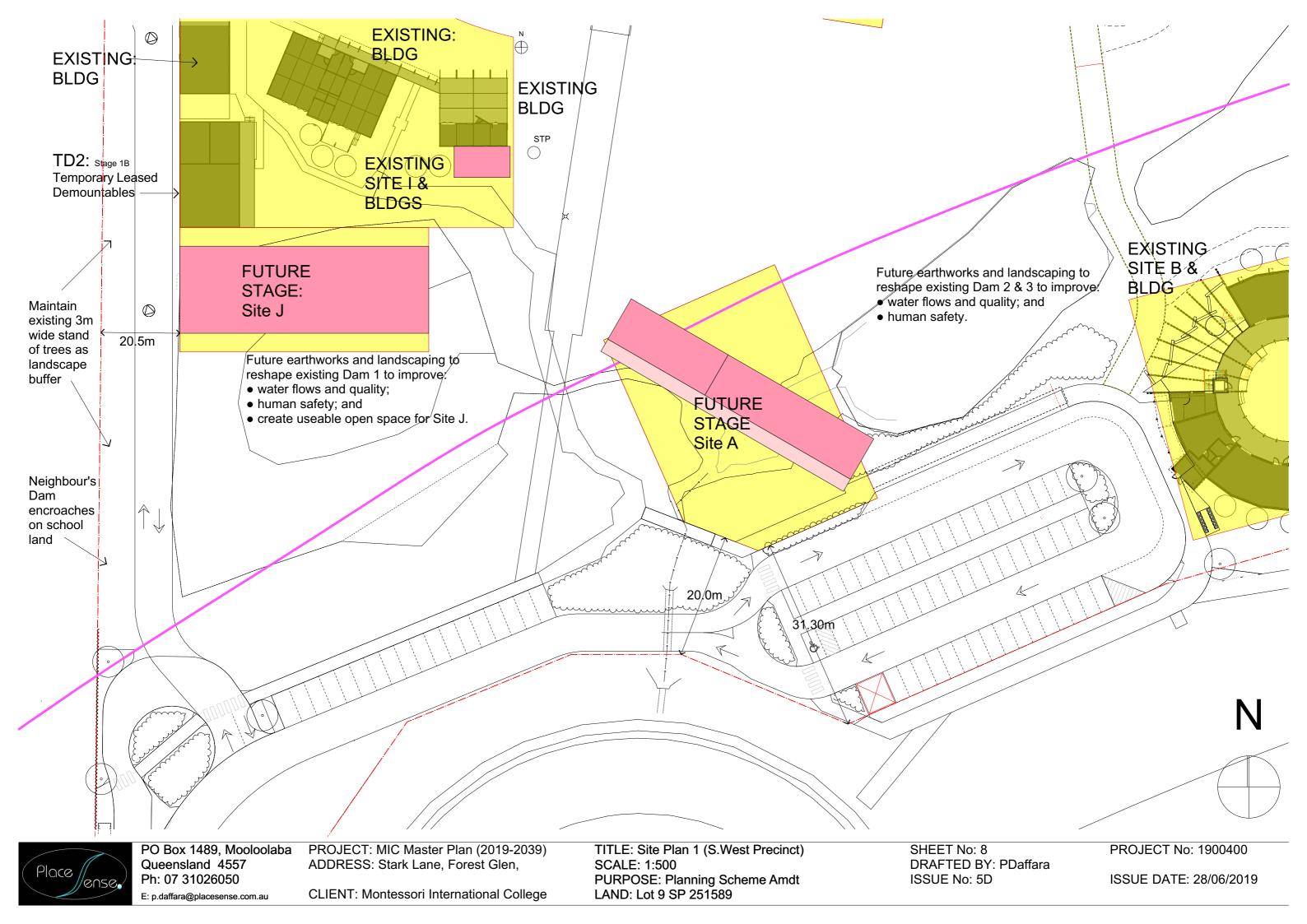
SCALE: 1:1500

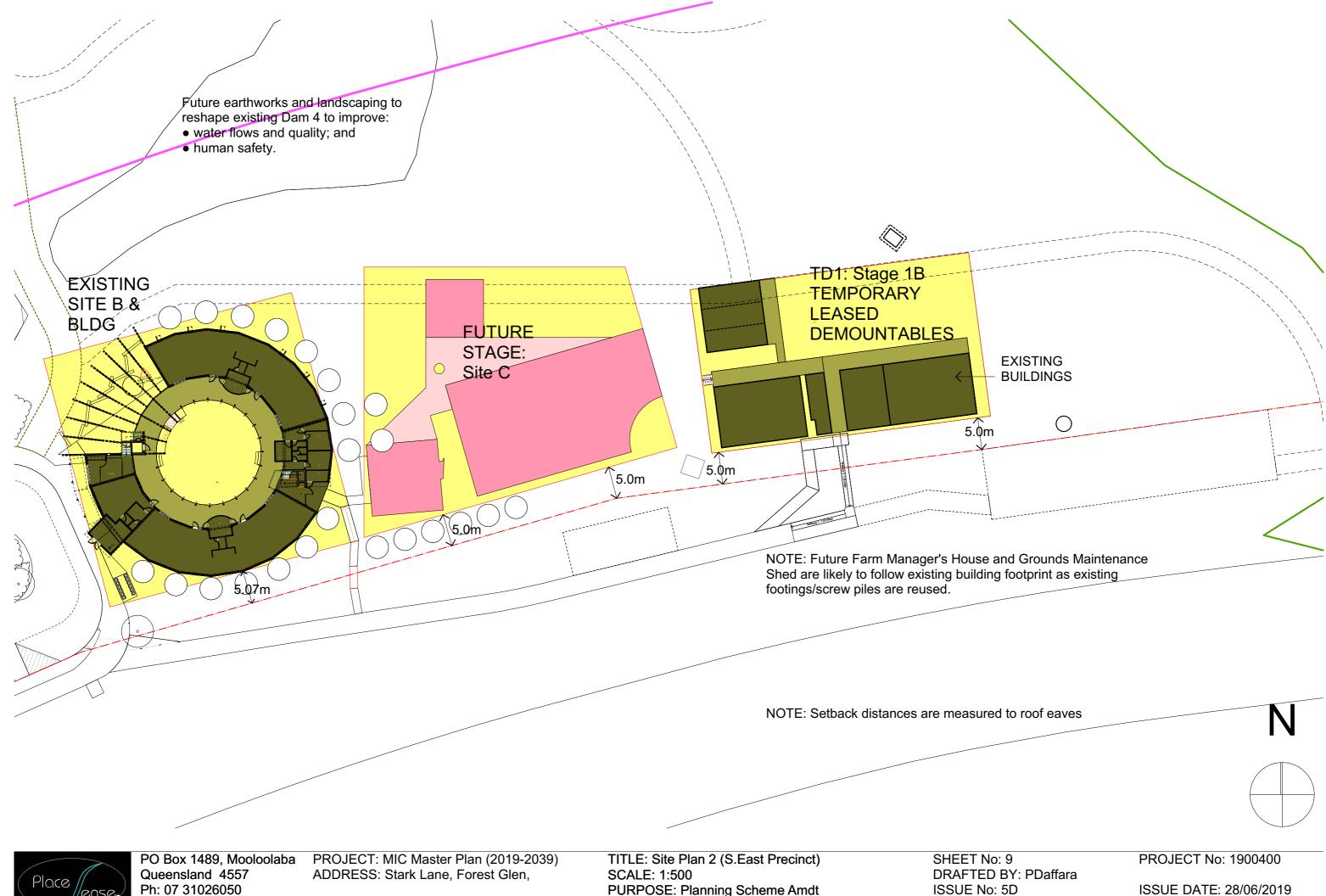
PURPOSE: Planning Scheme Amdt

LAND: Lot 9 SP 251589

DRAFTED BY: PDaffara ISSUE No: 5D

PROJECT No: 1900400







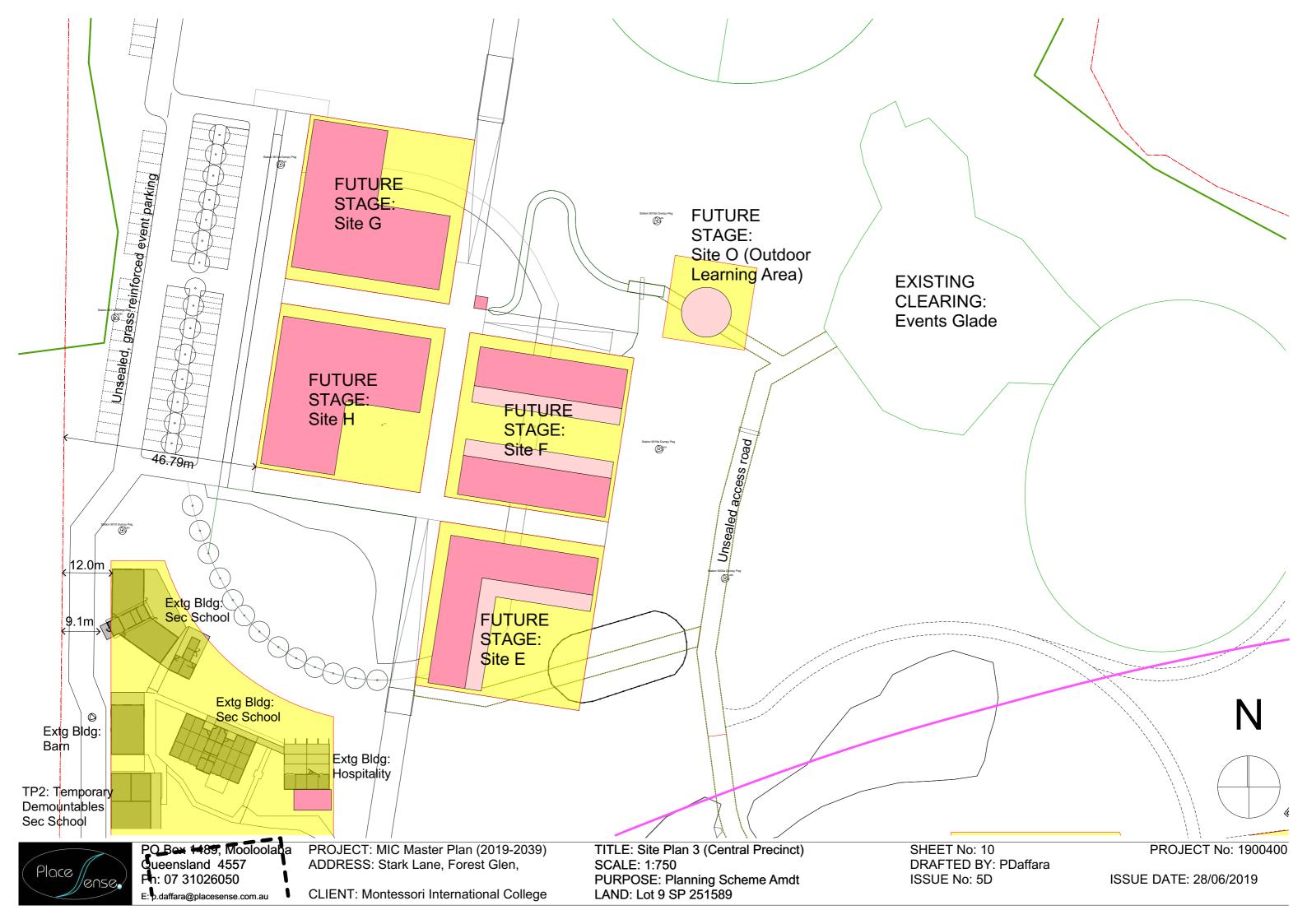
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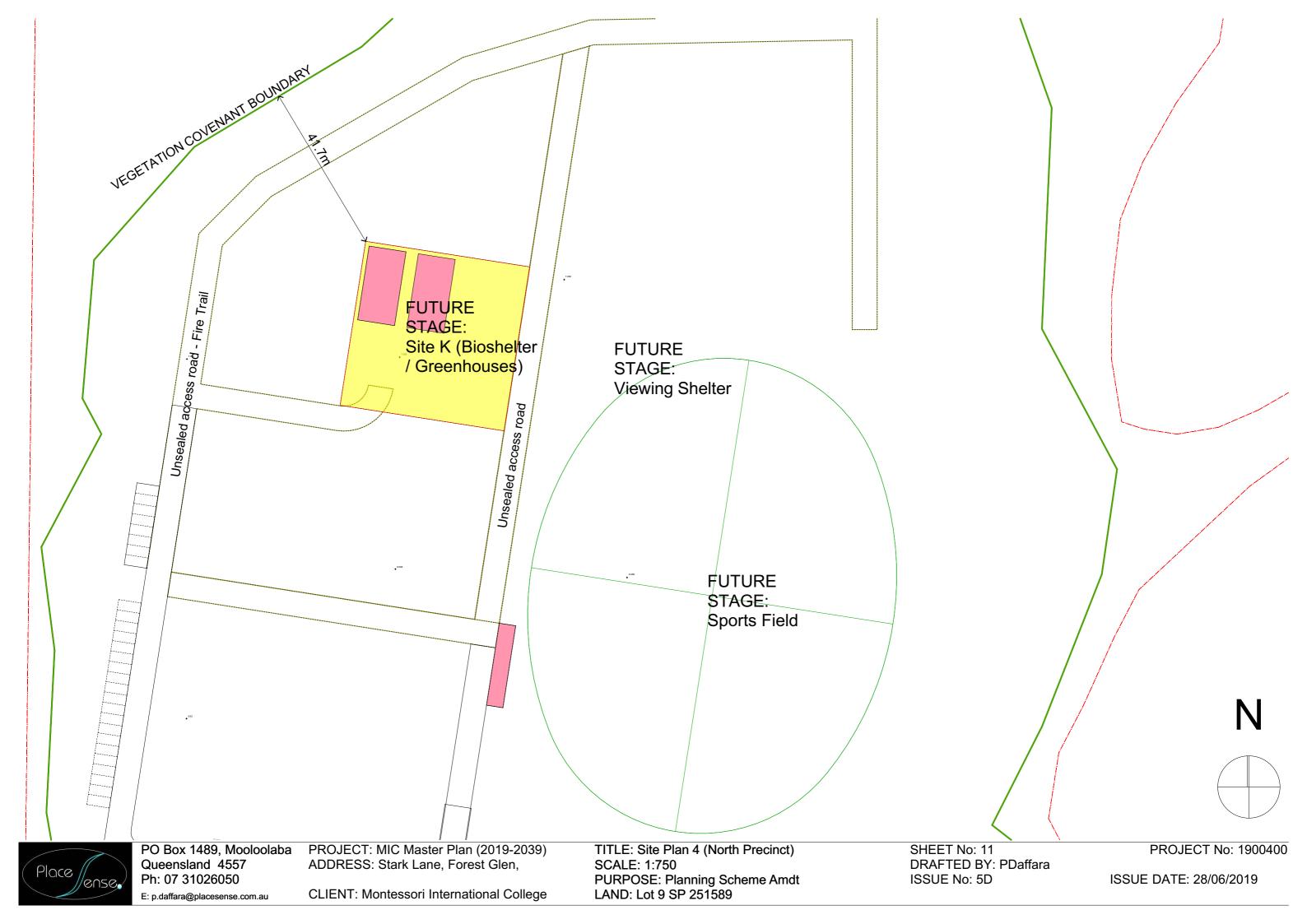
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CLIENT: Montessori International College

PURPOSE: Planning Scheme Amdt LAND: Lot 9 SP 251589

ISSUE No: 5D





FLOOD IMPACT MANAGEMENT - DESIGN STRATEGIES

Improve Overland Flows:

- Network of swales, drains and water courses through the Campus
- Reshape borrow pits to improve onsite water flow, quality and minimise water storage and aquatic weeds (Refer Landscape) Management Areas)

Resilient Piered Buildings & Boardwalks:

- 3 Minimum Floor Levels for each precinct as follows:
- A Piered; 7.95m AHD
- B Existing Bldg; 8.0m AHD
- C Piered; 7.95m AHD
- D Piered; 7.95m AHD (ext'g temp' demountable bldgs are 8.0m AHD)
- E Piered; 7.95m AHD
- F Piered; 7.95m AHD
- G Piered; 7.95m AHD
- H Piered; 7.95m AHDI Existing Piered Bldgs; 8.0m AHD
- J Piered / Basement; 7.95m AHD
- K Slab on ground; 8.0m AHD
- O Slab on ground (Class 10 Shelter)
- Piered building construction as per Concept Building Sections
- 5 Flood Immune Emergency Evacuation Routes - Refer Access Diagram

Negligible impact on the Flood Plain:

- Allow overland flows from the western neighbouring property via culverts or pipes under the new
- 7 Compensatory Earthworks for roads and building pads

Earthworks cut area

Earthworks fill - road and carparking (refer Access Diagram)

Earthworks - building pad area. Generally 7.1 - 7.68m AHD

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PROJECT: MIC Master Plan (2019-2039)
ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

TITLE: Flood Management

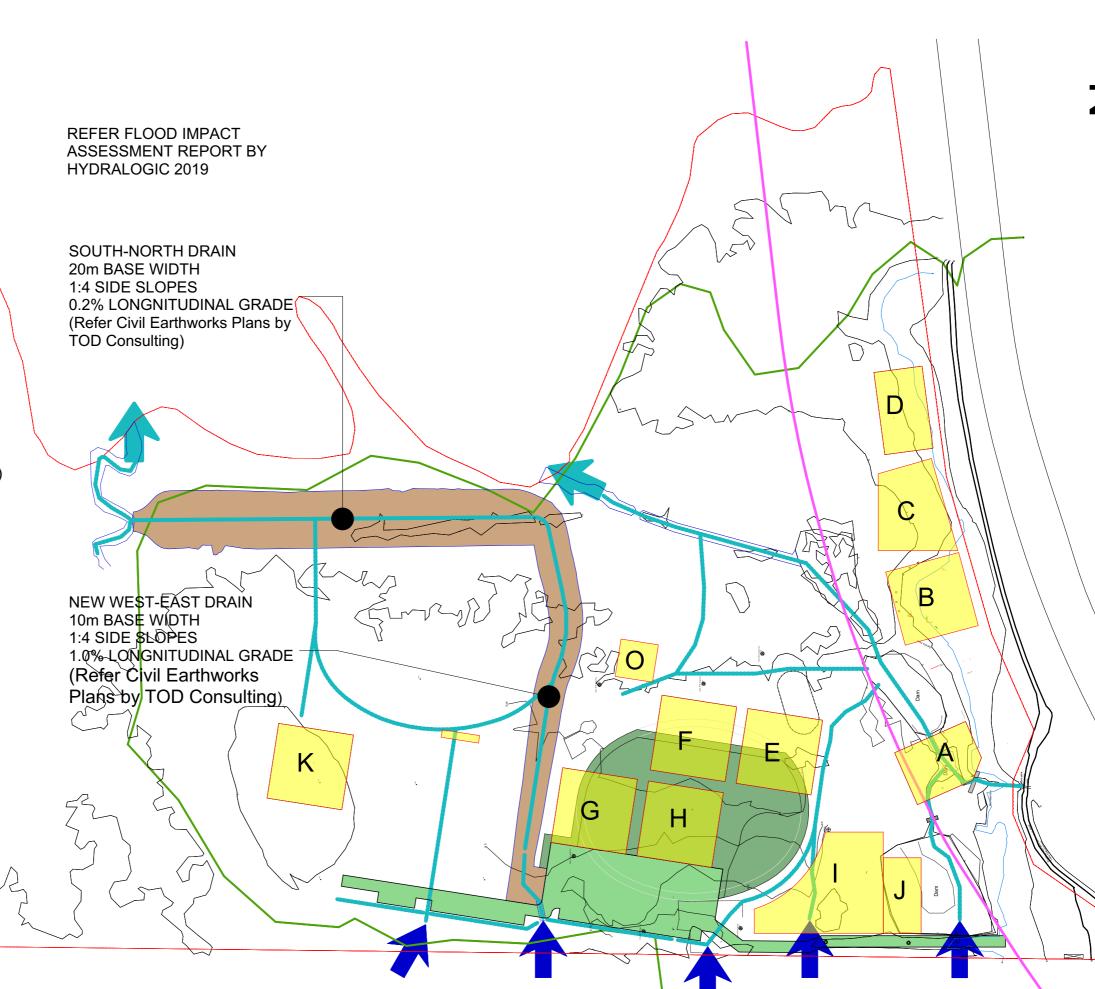
SCALE: 1:2000

PURPOSE: Planning Scheme Amdt

LAND: Lot 9 SP 251589

SHEET No: 12 DRAFTED BY: PDaffara ISSUE No: 5E PROJECT No: 1900400

ISSUE DATE: 10/07/2019

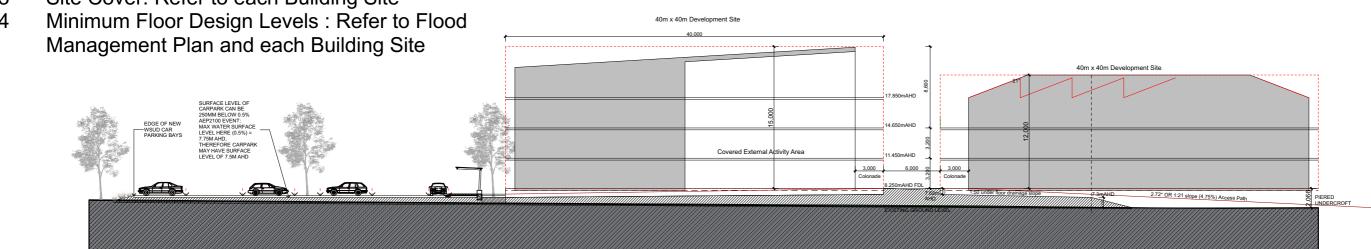




NOTES

BUILDING FORM

- Forms within Building Envelopes are indicative only
- Heights: Refer to each Building Site
- Site Cover: Refer to each Building Site



E-W Cross Section through new carpark and sites H & F

40m x 40m Development Site 40m x 40m Development Site

S-N Cross Section through Promenade Access

1:400



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PROJECT: MIC Master Plan (2019-2039) ADDRESS: Stark Lane, Forest Glen,

LAND: Lot 9 SP 251589

TITLE: Sections SCALE: 1:400 PURPOSE: Planning Scheme Amdt SHEET No: 20 **DRAFTED BY: PDaffara** ISSUE No: 5D

PROJECT No: 1900400

1:400

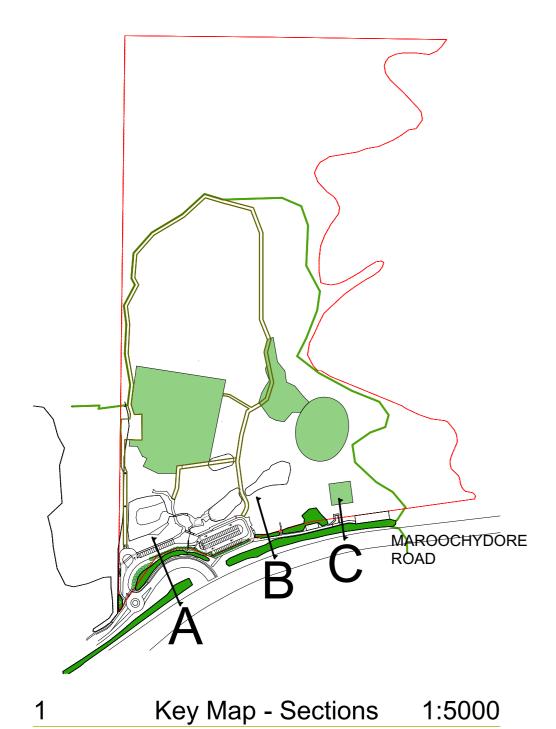
Part C: Scenic Landscape Assessment

Montessori International College

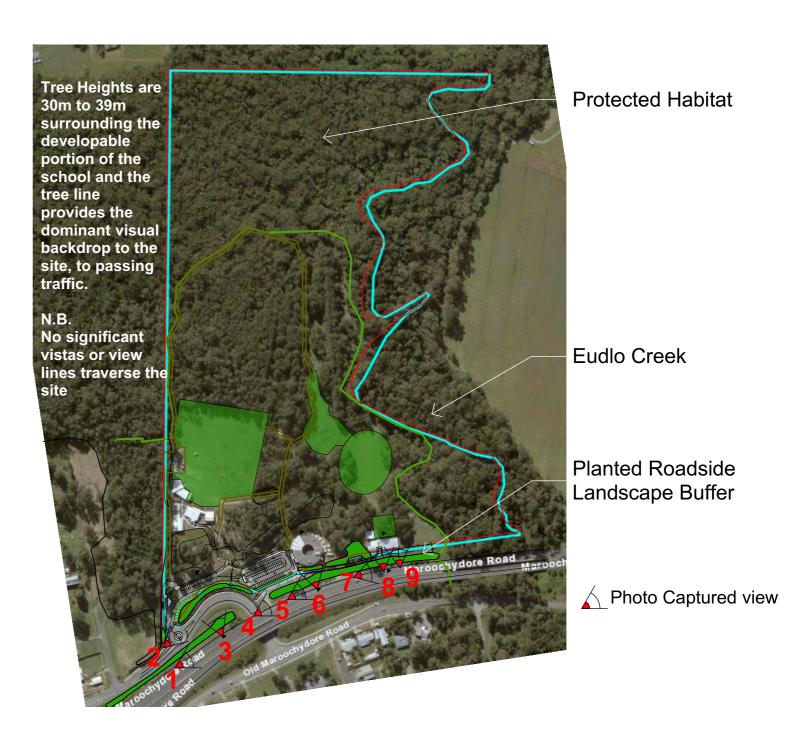
Infrastructure Designation Scope

Master Plan 2019-2039





N.B.: Data to generate sections sourced from RPS Feature Survey of Site and DTMR "Asconstructed" survey of road.



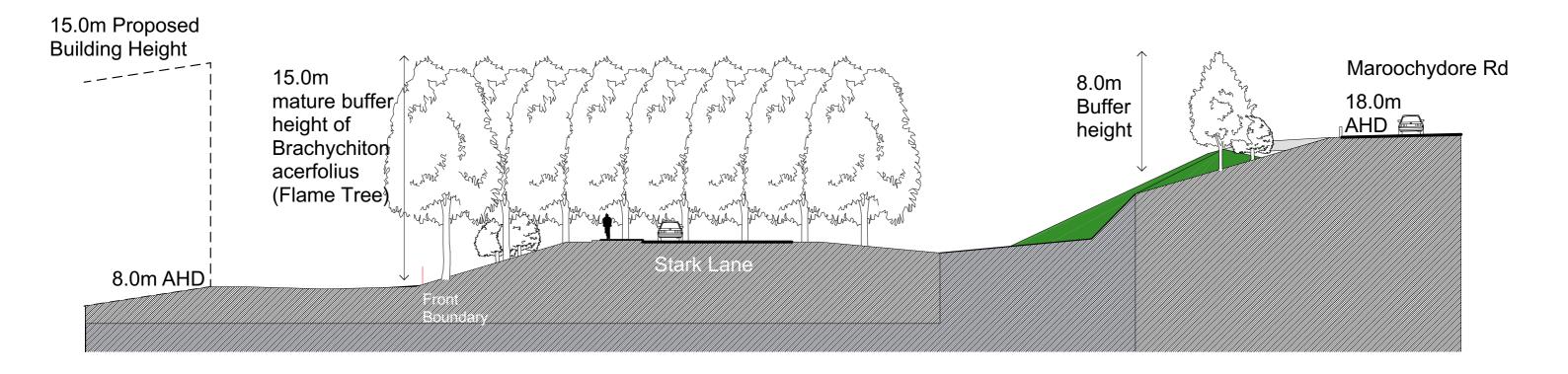
2 Surrounding Buffers to School 1:5000 that conserve scenic landscape amenity

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LAND: Lot 9 SP 251589



Photo 1 Photo 2 Photo 3



Section A

Place lense.

3

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PROJECT: MIC Master Plan (2019-2039) ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

TITLE: Section A - Scenic Landscape SCALE: 1:250

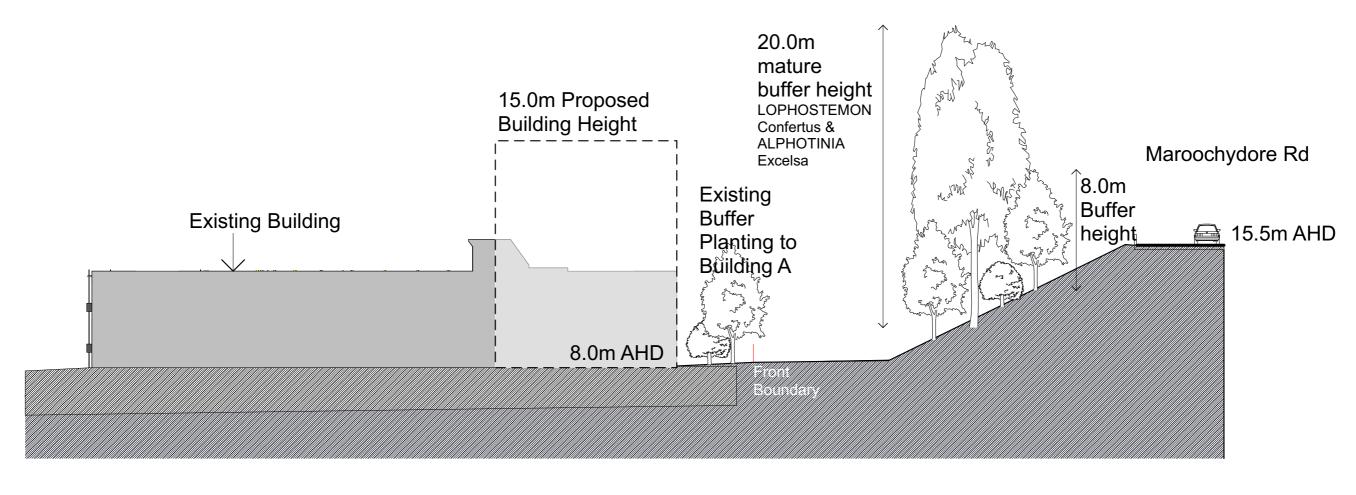
PURPOSE: Planning Scheme Amdt LAND: Lot 9 SP 251589 SHEET No: SL2 DRAFTED BY: PDaffara ISSUE No: 5D PROJECT No: 1900400

ISSUE DATE: 28/06/2019

1:250



Photo 4 Photo 5 Photo 6



4 Section B 1:250



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Photo 7



Photo 8

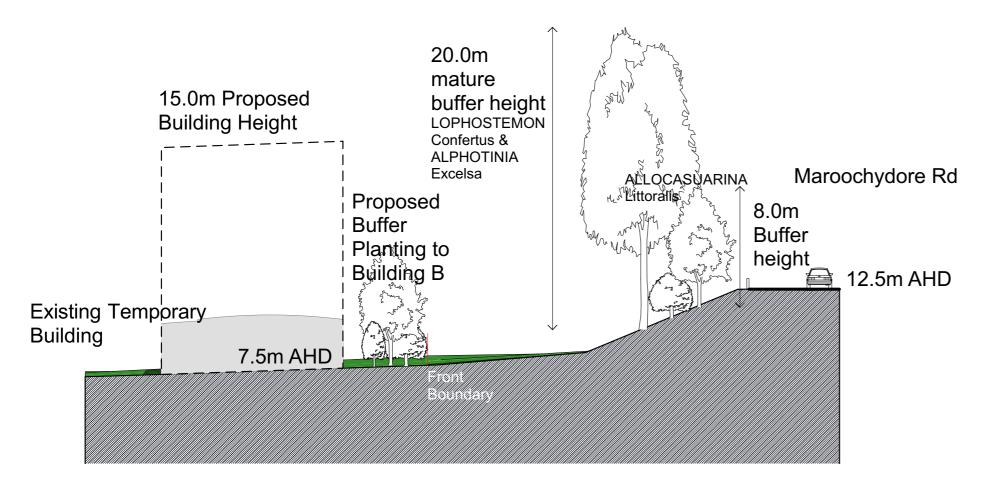




Photo 9

Section C 1:250 5



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PROJECT: MIC Master Plan (2019-2039) ADDRESS: Stark Lane, Forest Glen,

CLIENT: Montessori International College

TITLE: Section C - Scenic Landscape SCALE: 1:250

PURPOSE: Planning Scheme Amdt LAND: Lot 9 SP 251589

SHEET No: SL4 DRAFTED BY: PDaffara ISSUE No: 5D

PROJECT No: 1900400