

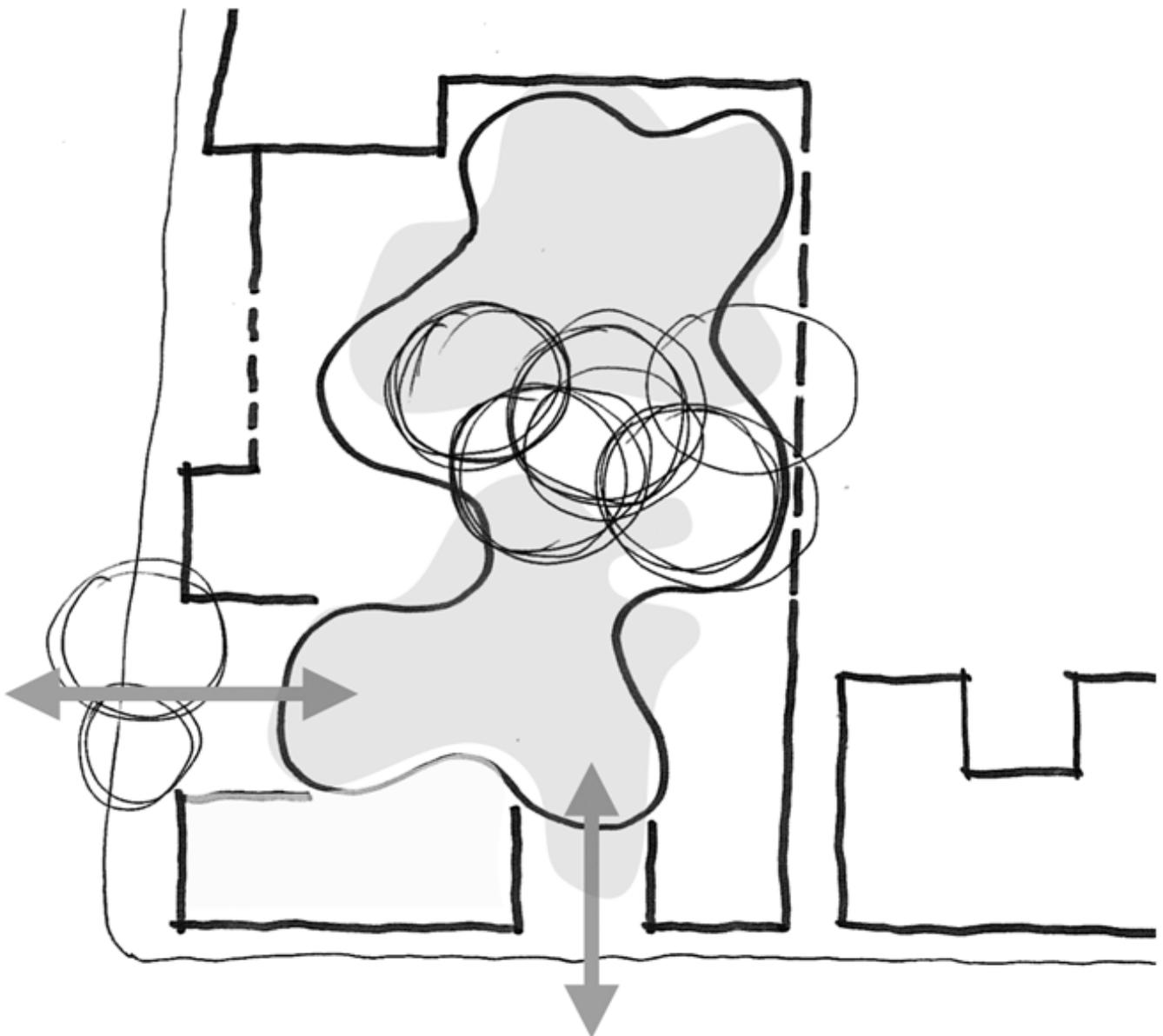
# DARLINGTON PUBLIC SCHOOL REDEVELOPMENT

## Appendix B — Design Report and Verification Statement

SSD-9914

Prepared by FJMT

For NSW Department of Education





**DARLINGTON PUBLIC SCHOOL**  
SSD - 9914 ARCHITECTURAL DESIGN STATEMENT

GOLDEN GROVE STREET, DARLINGTON, SYDNEY  
Department of Education



Project Name	Darlington Public School		
Project Code	DTPS		
Document Name	SSD-9914 Architectural Design Statement		
Revision	Date	Comment	Approved
Draft	28.02.20	Preliminary SSD Report	EC
Draft	09.04.20	Draft SSD Report	EC
Draft	17.04.20	Draft SSD Report	EC
REV 00	28.04.20	SSD Report	EC
REV 01	11.05.20	SSD Report	EC
REV 02	28.05.20	SSD Report	EC

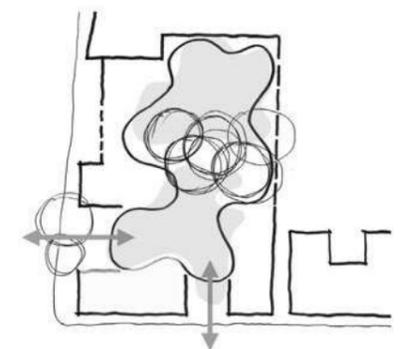
**Sydney** Level 5, 70 King Street, Sydney NSW 2000 Australia **t** +61 2 9251 7077  
**melbourne** Level 2, 56 Hardware Lane, Melbourne VIC 3000 Australia **t** +61 3 9604 2500  
**uk** Level , St Aldates, OX1 1BS United Kingdom **t** +44 1865 520 420

**w** [fjmtstudio.com](http://fjmtstudio.com)

Francis-Jones Morehen Thorp Pty Ltd ABN 28 101 197 219  
Nominated architect Richard Francis-Jones ARBNSW 5301  
Registered architect Richard Francis-Jones  
Francis-Jones Morehen Thorp Ltd Company no 7384142 ARB 078103G

# CONTENTS

<b>INTRODUCTION</b>	<b>4</b>	<b>SERVICING THE SCHOOL</b>	<b>27</b>	<b>CPTED</b>	<b>56</b>
Introduction	4				
Executive Summary	4	<b>BUILDING SERVICES STRATEGIES</b>	<b>28</b>	<b>PRESCHOOL</b>	<b>58</b>
Client Team	4			Preschool Floor Plan	59
Consultant Team	4	<b>OVERSHADOWING</b>	<b>29</b>	Response to Part 2, 3 and 4 of the Child Care Planning Guideline	61
Report Structure	4			National Quality Framework Assessment Checklist	67
		<b>VISUAL PRIVACY &amp; AMENITY</b>	<b>30</b>		
<b>RESPONSE TO SEARS</b>	<b>5</b>			<b>APPENDIX</b>	<b>68</b>
		<b>ENVIRONMENTAL AMENITY</b>	<b>32</b>	Appendix A - State Design Review Panel Feedback	68
<b>SITE AND CONTEXT ANALYSIS</b>	<b>6</b>			Appendix B - Lighting Strategy	70
Site Location and Details	6	<b>PUBLIC DOMAIN AND COMMUNITY USES</b>	<b>33</b>		
Campus Character	7			<b>ARCHITECTURAL DRAWING SET</b>	<b>73</b>
Site Analysis	8	<b>ABORIGINAL CULTURAL AND HERITAGE CONTEXT</b>	<b>34</b>		
Site Constraints & Opportunities	9				
		<b>MATERIALITY AND FACADES</b>	<b>39</b>		
<b>DESIGN PRINCIPLES</b>	<b>10</b>	Contextual Materiality	39		
		Proposed Materiality	39		
<b>EDUCATION MODEL</b>	<b>13</b>	Elevations	40		
		Facade Sections	43		
<b>SUMMARY OF MASTER PLAN OPTIONS</b>	<b>14</b>	Exterior Finishes Schedule	47		
		Material Sample Board	48		
<b>PROPOSED DESIGN</b>	<b>17</b>	Views	49		
		<b>RESPONSE TO EDUCATION SEPP &amp; BETTER SCHOOL DESIGN</b>	<b>53</b>		
<b>BUILT FORM AND URBAN DESIGN</b>	<b>18</b>				
		<b>GANSW CONSULTATION</b>	<b>54</b>		
<b>FUNCTIONAL ORGANISATION</b>	<b>20</b>	Response by the SDRP - August 2019	54		
Block and Stack Axonometric Diagram	20	Response by the SDRP - November 2019	55		
Relationship Diagrams	21				
<b>CIRCULATION</b>	<b>24</b>				



# INTRODUCTION

## Introduction

This Architectural and Urban Design Statement has been prepared by fjmt Studio on behalf of the Department of Education (the 'Applicant'). It accompanies the Environmental Impact Statement (EIS) as prepared by Ethos Urban in support of State Significant Development Application SSD 9914.

Approval is sought for the redevelopment of Darlington Public School to accommodate a maximum of 437 primary school students and an associated preschool for 60 children.

Specifically:

### Site preparation, demolition and excavation

- Site remediation
- Demolition of all existing buildings
- Minor excavation works to facilitate the new building
- Tree removal
- Installation of civil, hydraulic and electrical services

### Land use

- Use of buildings for the purpose of a school
- Use of buildings for the purpose of a child care centre (preschool)

### Existing buildings

- All existing buildings are to be demolished in the following stages:
- Early works: partial demolition of Block C (under separate approval, not included in scope of this SSDA)
- Stage 1: no demolition. Construction of Stage 1 in the area previously occupied by Block C
- Stage 2: demolition of the remainder of Block C and all of Blocks A and B

### New buildings

- Construction of a new 2 and 3 storey primary school building in 2 stages with integrated preschool.

### Landscaping

- Removal of some existing trees as nominated in the Landscape report.
- Landscaping works throughout the site, including connecting pathways, new play areas, assembly area and COLA
- A new games court is to be constructed during early works under separate authority (not included in scope of this SSDA)

### Other works

- Installation of fences and entry gates
- Modifications to existing pick-up / drop-off arrangements (via signage zones)
- Provision of signage zones

## Executive Summary

The proposal for the school will reflect the values as stated in Darlington Public School's Vision Statement in the 2018 School Plan:

*"At Darlington Public School we educate on purpose. Our vision is that all students receive strong educational foundations on which independent, critical thinking, lifelong learners are developed. Our goal is that all Darlington Public school students are able to use their educational opportunities to make a positive difference in their own lives and in the wider community."*

One of the fundamental principles of our response is to develop a strong identity and a sense of place for the campus, which will support the school as an inclusive, community focused campus that can support the holistic education of each learner. Our response unlocks the potential of the site through a number of strategic moves which provide ongoing opportunities for increased amenity and functionality.

The current school population includes 183 students, 23 staff and 24 preschool children.

The brief is to deliver a school for 415 students, to be accommodated in 19 home bases. This equates to an average of 22 students per home base. Future expansion can be accommodated up to a maximum of 437 students with an average of 23 students per home base. The proposed Master Plan is based on the NSW Department Of Education's Educational Facilities, Standards and Guidelines for a Core 14 school.

In addition to meeting the EFSG requirements for a Core 14 school, the proposal also includes an ESC approved Preschool for 60 children.

The total site area is 7,253m<sup>2</sup>

## Client Team

Project Reference Group Members:

Director, Public Schools -NSW Dept of Education - Richard Skinner  
Senior Project Director - NSW Dept of Education - Robert Crestani  
Project Director - NSW Dept of Education - Karissa Kendall  
Relieving Principal - Darlington Public School - Michelle McCormack  
Asset Manager - Department of Education - Dean Slattery  
Communications Manager - Dept of Education - Jacqueline Allen  
Project Manager - Mace Senior Project Director - Josh Malin  
Head Design Consultant - fjmt - Elizabeth Carpenter

## Consultant Team

- Structure - **Bonacci Group**
- Mechanical and ESD Consultants - **Integral Group**
- Hydraulics, Wet Fire - **Warren Smith and Partners**
- Civil Hydraulics- **Bonacci Group**
- Electrical , Comms, and Security - **Wood and Grieve Engineers**
- Dry Fire - **Wood and Grieve Engineers**
- Quantity Surveyor - **DCWC**
- Educational Planning - **New Learning Environments**
- BCA/NCC & Accessibility/DDA - **Philip Chun**
- Traffic Engineer - **TTPA**
- Acoustic Engineer - **Acoustic Logic**
- Visual Impact - **Ethos Urban**
- Aboriginal Consultant - **GML Heritage**
- Heritage (Historical) Consultant - **GML Heritage**
- Biodiversity Consultant - **Eco Logical**
- Arborist - **Moore Trees Aboriculture**
- Waste Management Consultant - **JBSG**
- Surveyor - **CMS Surveyors**

## Report Structure

In order to develop the most appropriate response for the site, prior to the decision as to the current proposal a detailed site analysis and investigation of possible options was undertaken. A summary of the findings has been included as part of the Architectural Design Statement.

In order to understand how to develop the site to meet the objectives of all stakeholders; both internal and external, and to future proof the site, a set of design principles was developed.

This report details the contextual analysis, the project brief, the design principles, and includes a brief description of the options which were initially developed as part of the initial Master Plan phase.

The selected option can be developed either in one staged or as a staged approach.

In reading this report, reference should also be made to the various consultants information which supports the proposal.

The project underwent a rigorous design review with the State Design Review Panel and the response to the panel's feedback is included as an Appendix to this report.

# RESPONSE TO SEARS

Conduct a view analysis to the site from key vantage points and streetscape loc

SEARS Requirements	Response location
Architectural drawings showing key dimensions, RLs, scale bar and north point, including: <ul style="list-style-type: none"> <li>plans, sections and elevation of the proposal at no less than 1:200 showing indicative furniture layouts and program</li> </ul>	Refer Appendix Architectural Drawing Set
<ul style="list-style-type: none"> <li>illustrated materials schedule including physical or digital samples board with correct proportional representation of materials, nominated colours and finishes</li> </ul>	Refer Materiality pages 39-49 including Material Sample Board Page and Exterior Finishes Schedule .
<ul style="list-style-type: none"> <li>details of proposed signage, including size, location and finishes</li> </ul>	Refer Page 33 and Architectural Drawing Set - Signage
<ul style="list-style-type: none"> <li>detailed annotated wall sections at 1:20 scale that demonstrate typical cladding, window and floor details, including materials and general construction quality</li> </ul>	Refer Facade Sections page 41 and Architectural Drawing Set - Elevations
<ul style="list-style-type: none"> <li>site plans and operations statement demonstrating the after hours and community use strategy</li> </ul>	Refer Public Domain and Community Uses page 33 and Architectural Drawing Set - Site Plan.
Site Analysis Plan including: <ul style="list-style-type: none"> <li>site and context plans that demonstrate principles for future development and expansion, built form character and open space network</li> </ul>	Refer Site and Context Analysis pages 6-9
<ul style="list-style-type: none"> <li>active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links</li> </ul>	Refer Landscape Report and Traffic Report
<ul style="list-style-type: none"> <li>site and context plans that demonstrate principles for future network, active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links</li> </ul>	Refer Landscape Report and Traffic Report
Shadow Diagrams	Refer Page 29 for example overshadowing on 21 June. All other overshadowing diagrams are in the Appendix, Architectural Drawing Set
View analysis, photomontages and architectural renders, including those from public vantage points	Refer separate Visual Impact Assessment Report
Schedule of materials and finishes	Material Sample Board Page and Material Schedule pages 47-48
<b>SEARS Requirements (Architectural Design Statement)</b>	
Key issues to be addressed include: <ul style="list-style-type: none"> <li>Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.</li> </ul>	Refer Built Form and Urban Design page 18
<ul style="list-style-type: none"> <li>Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours</li> </ul>	Refer Built Form and Urban Design page 18, Functional Organisation page 20 and Materiality pages 39-49.
<ul style="list-style-type: none"> <li>Provide details of any digital signage boards, including size, location and finishes.</li> </ul>	Refer Page 33 and Architectural Drawing Set - Signage
<ul style="list-style-type: none"> <li>Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.</li> </ul>	Refer Servicing the School page 27 and Building Services Strategies page 28. Refer separate Waste Management, Traffic and Services Reports
<ul style="list-style-type: none"> <li>Provide detailed site and context analysis to justify the proposed site planning and design approach including massing and building location options and preferred strategy for future development taking into account the location of existing trees.</li> </ul>	Refer Site and Context Analysis Page 6 onwards and Summary of Master Plan Options page 14
<ul style="list-style-type: none"> <li>Provide a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.</li> </ul>	Refer separate Visual Impact Assessment report and Architectural Drawings Set - Photomontage Views
<ul style="list-style-type: none"> <li>Conduct a view analysis to the site from key vantage points and streetscape locations (photomontages or perspectives should be provided showing the building envelope and likely future development)</li> </ul>	Refer separate Visual Impact Assessment Report and Architectural Drawings Set - Street Views
<ul style="list-style-type: none"> <li>Address Crime Prevention Through Environmental Design (CPTED) Principals</li> </ul>	Refer CPTED Page 56

SEARS Requirements	Response location
<ul style="list-style-type: none"> <li>Demonstrate good environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility</li> </ul>	Refer Environmental Amenity page 32, Architectural Drawing Set, Landscape Report and separate ESD Report
<ul style="list-style-type: none"> <li>Demonstrate that Aboriginal culture and heritage is considered and incorporated holistically in the design proposal</li> </ul>	Refer Aboriginal Cultural and and Heritage Context, page 34, Landscape Design Report and separate ACHAR report.
<ul style="list-style-type: none"> <li>Detail ESD principals including sustainability targets and integration of these in the design approach</li> </ul>	Refer separate ESD Report and Architectural Drawing Set
<ul style="list-style-type: none"> <li>Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing and acoustic impacts.</li> </ul>	Refer Overshadowing page 29, Visual Amenity page 30 and separate Acoustic Report
<ul style="list-style-type: none"> <li>Include a lighting strategy and measures to reduce spill into the surrounding sensitive receivers</li> </ul>	Refer separate Electrical Consultant report, Appendix B
<ul style="list-style-type: none"> <li>Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated..</li> </ul>	Refer Overshadowing page 29, Visual Privacy page 30 and separate Acoustic Report
Design Report to demonstrate how design quality will be achieved in accordance with the above Key Issues, including: <ul style="list-style-type: none"> <li>Architectural Design Statement</li> </ul>	Refer Design Principles page 10 and Proposed Design pages 17 onwards.
<ul style="list-style-type: none"> <li>Diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal</li> </ul>	Refer Design Principles page 10 and Proposed Design page 17 onwards
<ul style="list-style-type: none"> <li>Detailed site and context analysis</li> </ul>	Refer Site and Context Analysis Page 6 onwards
<ul style="list-style-type: none"> <li>Analysis of building location options considered including building envelope study to justify the proposed site planning and design approach, taking into account the location of existing trees and the context of surrounding development forms including existing street edge conditions.</li> </ul>	Refer Site and Context Analysis pages 6-9 and Masterplan Options page 14
<ul style="list-style-type: none"> <li>Visual impact assessment identifying potential impacts on the surrounding built environment and adjoining heritage items and heritage conservation area</li> </ul>	Refer separate Visual Impact Assessment Report
<ul style="list-style-type: none"> <li>Summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice</li> </ul>	Refer GANSW Consultation page 54 and Appendix A, State Design Review Feedback
<ul style="list-style-type: none"> <li>Summary report of consultation with the community and response to any feedback provided</li> </ul>	Refer separate Community Consultation Report
Design Verification Statement	Refer page 53
<ul style="list-style-type: none"> <li>Clearly demonstrate how design quality will be achieved in accordance with Schedule 4 Schools - Design Quality Principals of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</li> <li>Government Architect NSW Design Guide for Schools</li> <li>Demonstrate how environmental design will be achieved in accordance with the Environmental Design in Schools Manual (<a href="https://www.governmentarchitect.nsw.gov.au/guidance/environmental-design-in-schools">https://www.governmentarchitect.nsw.gov.au/guidance/environmental-design-in-schools</a>)</li> </ul>	Refer page 53 Refer page 32
<b>Non-SEARS Requirements - Childcare Planning Guidelines</b>	
National Quality Framework Assessment Checklist	Refer page 67
Design Statement Addressing Part 2, 3 and 4 of the Child Care Planning Guideline	Refer page 61

# SITE AND CONTEXT ANALYSIS

## Site Location and Details

- Darlington Public School is located in the suburb of Darlington and operates as a local primary school serving its immediate community.
- The school consists of 1970's buildings with no heritage significance. The heritage items that relate to the site are St Michael's Melkite Church located at the end of Abercrombie St and the Sydney University Regiment building which abuts the site and is located at the corner of Darlington Lane and Golden Grove Streets.
- The school site is surrounded on three sides by road ways; Abercrombie Street, Golden Grove Street and to the rear, Darlington Lane. To the north, the site is built up with two new University buildings; Sydney Business School and student accommodation.
- On the north side of Darlington Lane is a proposed student housing redevelopment consisting of a row of terraces along Darlington Road.
- The site is irregular in shape and is made up of two lots owned by the Department of Education. It has an overall area of approximately 0.72 hectares.
- The site contains the following lots:-
  - Lot 100 DP 623500 - 2,366m<sup>2</sup>
  - Lot 592 DP 752049 - 4,887m<sup>2</sup>
  - The lots will be consolidated after Stage 1
- Total Site Area = 7,253m<sup>2</sup>
- The site is zoned SP2 - Educational Establishment.



### LEGEND

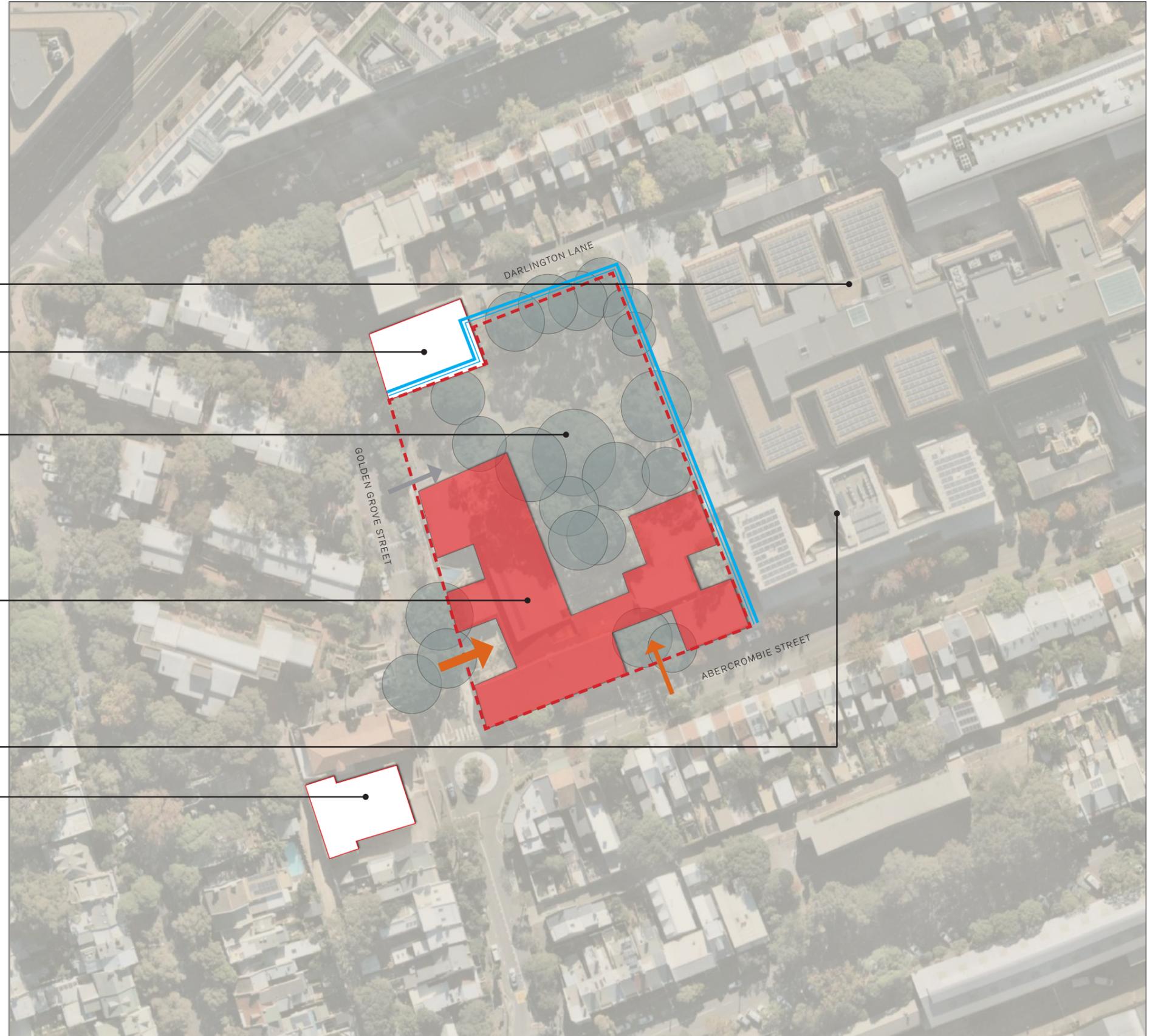
- DASHED RED LINE: DARLINGTON PUBLIC SCHOOL
- GREEN: SYDNEY UNIVERSITY
- BLUE: CARRIAGEWORKS

## Campus Character

- University of Sydney Business School
- University of Sydney Regiment
- Existing Trees
- Existing School Buildings
- Abercrombie Student Accommodation
- St Michael's Melkite Church

### LEGEND

- EXISTING SCHOOL BUILDINGS
- HERITAGE BUILDINGS
- EXISTING TREES
- ➔ SCHOOL ENTRANCE
- ➔ SERVICE ENTRANCE
- SITE BOUNDARY
- BOUNDARY SHARED WITH USYD



# Site Analysis



ORIENTATION

- PREDOMINANT SUMMER WINDS
- PREDOMINANT WINTER WINDS
- SUMMER SOLSTICE SUN PATH
- WINTER SOLSTICE SUN PATH

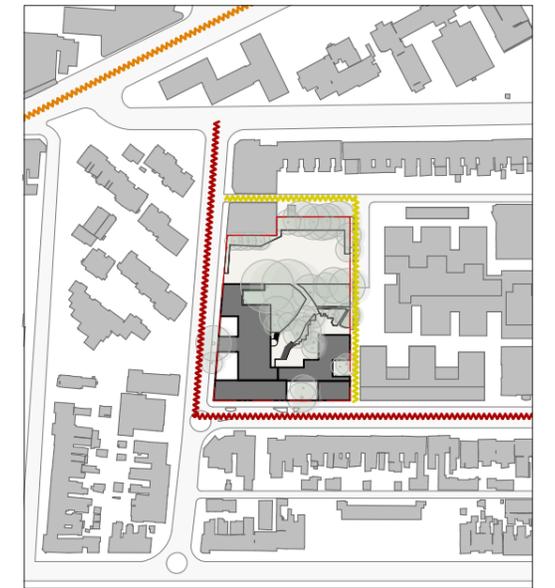


TRAFFIC

- PEDESTRIAN ACCESS
- SURROUNDING ROADS



EXISTING TREES



NOISE

- NOISE FROM SURROUNDING ROADS
- NOISE FROM USYD
- NOISE FROM KING ST/ CITY ROAD



DRAINAGE

- AREA OF FLOODING
- SCHOOL ROOMS THAT FLOOD
- RUN OFF FROM ASPHALT



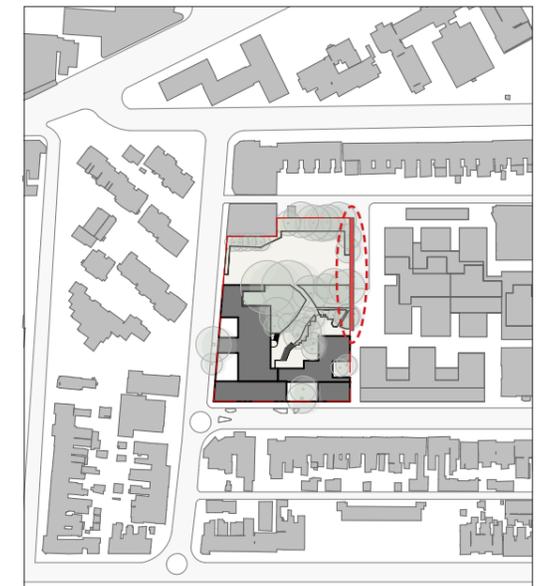
CONTAMINATED FILL

- AREA OF CONTAMINATED FILL. CONTAMINATION EXISTS ACROSS THE SITE



EXISTING AREAS

- EXISTING INTERNAL AREA - 3145M<sup>2</sup>
- EXISTING PLAY AREA - 2834M<sup>2</sup>



USYD STRIP OF LAND

IT HAS BEEN CONFIRMED THAT USYD WILL RETAIN OWNERSHIP OF THE STRIP OF LAND ADJACENT TO THE SUBJECT SITE

# Site Constraints & Opportunities



URBAN FABRIC

- LOW SCALE RESIDENTIAL
- MEDIUM SCALE RESIDENTIAL
- COMMUNITY BUILDINGS
- STUDENT ACCOMMODATION
- USYD BUILDINGS

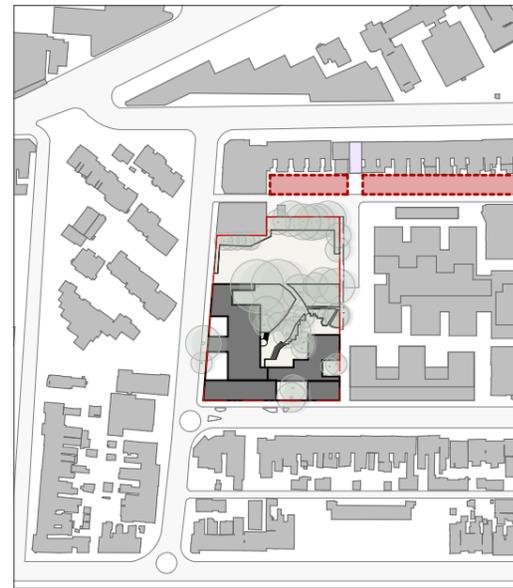


LOCAL AREA

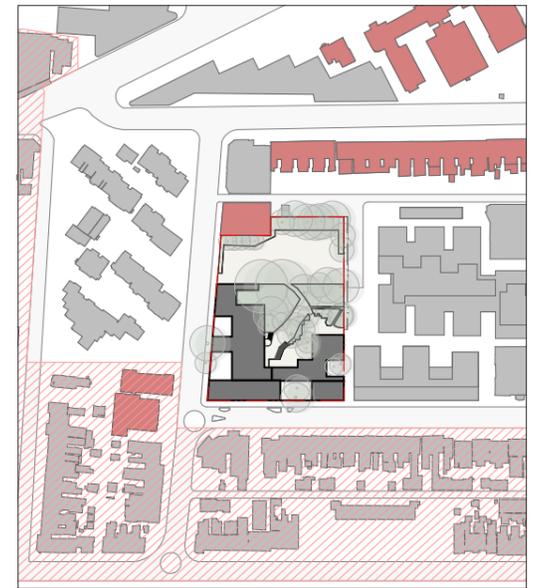
- RESIDENTIAL
- CHURCH
- BUSINESS
- UNIVERSITY



VIEWS IN FROM USYD



PROPOSED DARLINGTON LANE STUDENT DEVELOPMENT



HERITAGE

- CONSERVATION AREA- GENERAL
- HERITAGE ITEM - GENERAL



REGULATING LINES



LEVELS



ACCESS



SECURITY



ART WORKS

# DESIGN PRINCIPLES

## Guiding Design Principles

Schools have a vital civic role, and form an important part of the community.

Schools' primary role is to deliver educational outcomes, however, they also have opportunities to engage more broadly with their communities.

The design principles included within this section aim to provide a framework for the Master Plan and to direct the development of the design solution.

They offer a high level of aspiration and quality control which will be used to test options to ensure they align with the Master Plan's intent.

The Design Principles have been grouped under the over-arching EFSG and Educational Space Planning Principles as developed by New Learning Environments and the school community.

## Relationship to Darlington Public School Education Model

The Design Principles are to be considered in conjunction with the Darlington Educational Model which identifies the spatial implications of specific pedagogical approaches and the over-arching influence of the Reggio Emilia philosophy.

## Education SEPP Design Quality Principles

In the new Education SEPP 2017, there are a number of design quality principles included in the legislation to encourage design excellence. Any application under this legislation will be required to provide a design statement that outlines how these principles have been incorporated.

The SEPP Design Quality Principles include:

- Context, built form and landscape
- Sustainability, efficiency and durability
- Accessibility and inclusiveness
- Health and safety
- Amenity
- Whole of life, flexibility and adaptability
- Aesthetics

## EFSG Educational Space Planning Principle 01

### ***First and foremost, focus on the needs of learners and learning***

"students engage in their learning when they can change the learning space" DPS Teacher, LEAT 2017



### ***1: The Child Comes First***

#### ***A diverse, collaborative learning environment incorporating the spatial implications of specific needs.***

- 1. Learner-Centredness**
  - a diverse range of learning environments, both indoor and outdoor.
  - flexible learning environments that promote choice
  - reconfigurable spaces
  - connected spaces with opportunities for passive supervision
  - display spaces for student work
  - display spaces for information including time management aides
  - organisational spaces (home group/ tutorial/touch-down spaces)

- 2. Collaboration**
  - spaces to facilitate collaboration from pairs to neighbourhoods
  - spaces for both formal and informal collaboration
  - outdoor collaboration settings
  - neighbourhood assembly areas
  - multi-use spaces for cross disciplinary learning
  - teacher planning, meeting and prototype spaces
  - large meeting spaces for staff collaboration, both informal and formal
  - discrete spaces for conversations between students staff and school community/staff
- 3. Stage-Related Learning Neighbourhoods**
  - enhance neighbourhood identity and character
  - visual and physical links between learning stages
  - embrace shared areas while maintaining identity and address for each neighbourhood
  - clarity of way finding
  - equality of access across all spaces
- 4. Rethinking the Role of the Library**
  - a well connected and centralised "safe haven"
  - a learning area and a recreational area
  - an equitable, flexible and collaborative space
  - provision of specialised activities (ie: multi media)
  - provision of resource-based learning through maker spaces
- 5. Outdoor Learning**
  - maximisation of active play space within a constrained environment
  - consideration of outdoor amenity
  - connections between outdoors and indoors to emphasise the connection with the natural world
  - a diversity of outdoor areas
  - sustainable outdoor environments
  - practical outdoor environments
- 6. Learner Comfort and Well-being**
  - provide easy access to water bubbles and toilets
  - Create "stay a while" places, "sanctuary" spaces and "nooks" within indoor and outdoor learning areas
  - provide discrete counselling areas within student centred spaces (ie; library)
  - provide security and containment to support lock down procedures

**Build community and identity and create a culture of welcome inclusion and belonging that reflects and respects diversity within the schools community**

"The school should seem welcoming. Often, many community members are unsure of the school being located where it is". DPS Teacher, LEAT 2017



**2: Indigenous Heritage & Culture**

**A school that celebrates and educates about its Indigenous heritage and culture**

- Design that celebrates and reflects the Aboriginal community and heritage of the school.
- Integration of the school artworks.
- Landscape design that relates to indigenous community and can be used to teach and demonstrate indigenous culture.



**3: Identity & Inclusion**

**Creation of strong identity & address for Darlington Public School**

- Create a campus arrival marked by a series of clear and distinctive open spaces and buildings.
- Reinforcement of an inclusive sense of place and identity; a campus for all.
- Reinforce a campus of built form and landscaped spaces
- Provide a clarity of public to private zones across the campus
- Enhancement of the unique character of the campus and the influence of its urban context and the opportunity for a future focussed response



**4: Campus Heart**

**Clear campus centre (a central piazza)**

- Strengthening of Darlington's social and collaborative hub, focussed on the school centre as a gathering place.
- Provide open spaces which focus and sustain the school.



**5: Community Engagement**

**Connect the campus and the community**

- Provide large visible gathering spaces for the community at the edge of the school.
- Remove internal barriers to create a truly integrated and seamless campus.
- Placement of the school hall in a prominent position on the corner of Abercrombie and Golden Grove Streets.



**6: Orientation & Wayfinding**

**Collective and connected campus**

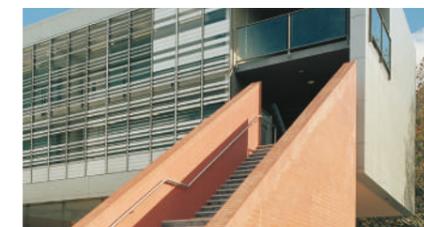
- Provide a clarity of wayfinding.
- Provide a clear hierarchy of access ways and entrances.
- Provide at least one weather protected route.
- Provide visible open spaces and access ways that strengthen connections
- Provide a seamless connection of interior and exterior function.



**7: Safety & Security**

**Pedestrian priority**

- Remove cars from campus where possible.
- Separate loading and pedestrian areas
- Through the use of landscaping and wayfinding, activate pedestrian paths.
- Consider pedestrian experience out of hours.
- Promote safety and accessibility.
- Interrogate safety and process of 'kiss and drop'.



EFSG Educational Space Planning Principle 03

**Be Aesthetically pleasing**



EFSG Educational Space Planning Principle 04

**Provide contemporary, sustainable learning environments**



EFSG Educational Space Planning Principle 05

**Embed potential for reconfigurability, multi-purpose use over time**



**8: Heritage**

**Sensitive and appropriate design outcomes**

- Respect for the local heritage of the area.
- Consideration of how the site has developed and changed through its history and demonstration of this in the development of the school campus.

**9: Transparency & Showcase**

**Engaging, welcoming and vibrant**

- Promote interaction, involvement and curiosity.
- Activate pedestrian connections by promoting transparency to interiors.
- Showcase creativity and innovation.
- Promote day lighting and outlook.
- Encourage and invite cross disciplinary activity.
- Open up specific areas to the local community with shared spaces and resources.

**10: A sustainable, protective & contemporary environment**

**A nurturing and safe campus**

- Improve the amenity of the site and create a protective and sheltered campus.
- A campus that creates an environment where students feel calm and can focus on school life.
- Provision of an authentic learning experience through the building and landscape design
- A responsible selection of materials

**11: Amenity & Wellbeing**

**A welcoming, amiable, healthy campus**

- Encourage casual sport and recreation and promote health and exercise.
- Provide compliant shade and shelter and offer protected outdoor learning environments.
- Ensure campus is equitable and accessible.

**12: Flexibility & Multi-Purpose**

**Embed potential for reconfigurability, multi-purpose use over time**

- Minimise built-in elements and utilise mobile storage to configure spaces
- Provide flexible, multi-function spaces that can accommodate changes in student cohort, disciplinary trends, technologies and community use.

**13: Buildability & Economy**

**Sensible and considered development**

- Project planning, staging, design and delivery to align with ongoing strategic priorities and available funding.
- Consideration given to high quality and life-cycle economy in building and site development .



# EDUCATION MODEL

## Pedagogical Approach

The Government Architect NSW's 'Design Guide for Schools' states that a school design brief should outline the pedagogical approach of the school, and sets out the following guidelines for articulating pedagogical approach, and planning for its development;

Engage the school community in the discussion of different pedagogical approaches early in the design process, including more traditional and more contemporary teaching styles.

Innovative approaches are more successful when students, teachers and the school community prepare for them before new buildings and spaces are built, for example through small scale pilot projects.

New approaches to learning often require a variety of settings and increased technology support in order to enable a range of interaction styles. These can include large groups, small groups, personalised learning and indoor and outdoor spaces, all of which can impact on the spatial and environmental requirements of the school.

Regardless of the pedagogical approach, spaces should be designed to be adaptable to enable integration of new information and communication technologies as they emerge.

(Source: Government Architect NSW, 'A Design Guide for Schools', 2018)

## Reggio Emilia

'The learning philosophy of Reggio Emilia is based on promoting the rights of the child, and improving childhood education (pre-primary and primary) with children as active participants in the process.

It begins with the recognition of the child as possessing the potential and capabilities, and the curiosity and willingness to learn.

It is also built on the premise that space is an essential 'tool for learning' or 'third teacher' and that every corner of the learning environment can be used to engage children with their learning, with their adults (educators and family/carers) and with each other.

Research reaffirms this founding principle of the importance to learning of the relationships between children and family, their peers and their teachers.

The spaces of a Reggio Emilia environment will embody the culture of a school. They offer diverse and flexible spaces, to enable delivery of a similarly varied pedagogy, based on experiences through which children can learn, and "informed by continual questioning, reflection and research".

Design is guided by five key spatial principles embedded in any Reggio facility:

### centrality, transparency, horizontality, ateliers, and nature:

- A central piazza, lobby or courtyard welcomes visitors, provides links to other spaces, and offers clear guidance on wayfaring further into the facility. Décor is warm and engaging. In some cases, these community focused spaces include an accessible kitchen, inviting use by families, children and staff.
- Controlled visual links between learning spaces can provide lines of sight for adults but not for children – for them the intimacy and focus is maintained. In other spaces, glass walls are preferred to maximise connection.
- Attention is given to the relationship between adjacent spaces: creating meaningful connections between ages, functions and spaces. Teacher workspaces are placed to allow casual supervision of indoor and outdoor learning spaces. Screening is used to control student focus at times, and open the areas at others (see also Ateliers, below).
- Ateliers of different sizes allow shared research, experimentation, materials, languages, perspectives, interaction & exploration. Screening devices are also used to adapt the space so that different groups conducting different activities can be in the atelier at the same time. Décor is ideally kept low-key and neutral to really showcase student work and to help the learning materials to stand out.
- Connection to the natural environment is an imperative for a Reggio Emilia centre: indoor spaces enjoy natural light penetration and visual links to the outdoors, allowing a sense of what is happening outside; covered and open outdoor spaces feature prominently, and include play equipment, learning spaces and gardens, paths and installations that reflect the elements (wind etc). these principles are adaptable to a multi-storey environment."

Educational Model for Darlington Public School, New Learning Environments.

PRECEDENT IMAGE: AN INTERACTIVE FACADE PROMOTING AURAL AND TACTILE STIMULATION



PRECEDENT IMAGE: A CONNECTION TO THE OUTDOORS



## SUMMARY OF MASTER PLAN OPTIONS

Following feedback from the PRG, School Community and the State Design Review Panel, fjmt was asked to provide an independent review of a previous master plan and provide an analysis based on the feedback raised. We analysed the existing site and the proposed design, and with consideration of the collective feedback on the proposal, explored the issues we felt the proposal raised and how this impacted on the school site. Following this, fjmt were asked to explore a number of high level conceptual options that took account of these responses, the history, site analysis and the needs of the school. These options build on the previous body of work that has been developed for the school.

OPTION A



OPTION B



OPTION C



OPTION D



**OPTION A**

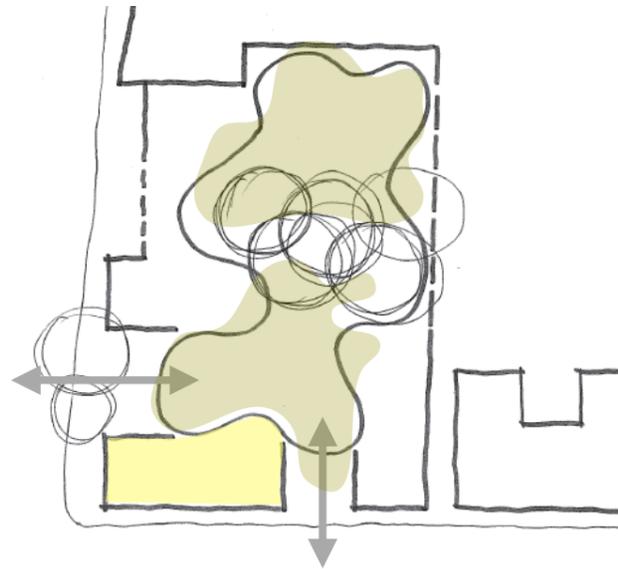
Locates the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school.

The front facade is opened up in places to allow access points into the school and helping to open up the school to the community.

Built form along Golden Grove St is pulled back from the site boundary expand the school drop-off areas and pull back the main volume from the road edge

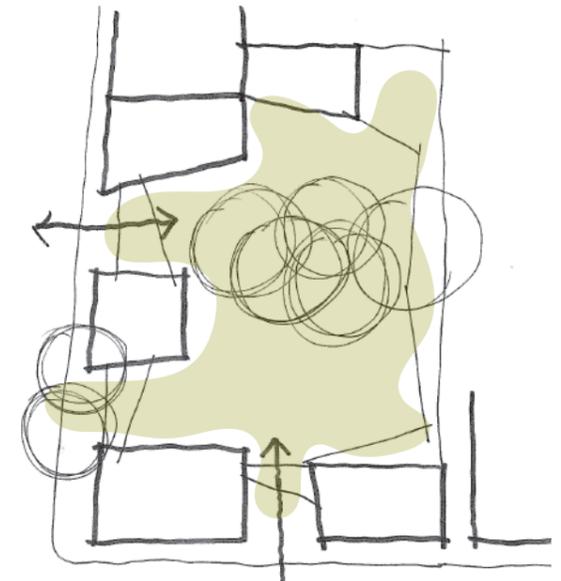
The buildings also form a C shape to block views in to the school site from the student accommodation and to help enclose and protect the school.

The exterior facades are very linear and aligned to a grid to reflect the urban fabric around the site, while in the inward facing facades are softer and curved to provide a gentler character to the school.



**OPTION B**

This option is a series of built forms that are pulled a part and placed around the site linked by bridges and colonnades. These open the site open and bring to it a range of different spaces and forms as you move across the school. The buildings are built up to limit the size of the footprints on the ground floor. The centre is left open to allow sun to penetrate as far into the site as possible.

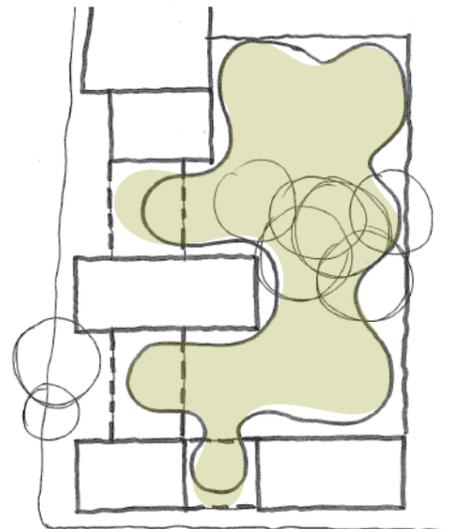


**OPTION C**

This option keeps the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school. The front facade is opened up in places to allow access points into the school and helping to open up the school to the community. The buildings along Golden Grove St are pulled back from the site boundary expand the school drop-off areas and pull back the main volume from the road edge.

The play areas and building forms are collected by a curved covered walkway which provides shelter as students moved around the site as well as visual privacy from the buildings to the north east of the site.

The school hall and Library are located in the building on the corner of Golden Grove and Abercrombie Streets. This form helps to hold the corner of the street and helps to emphasise the end of Abercrombie Street.

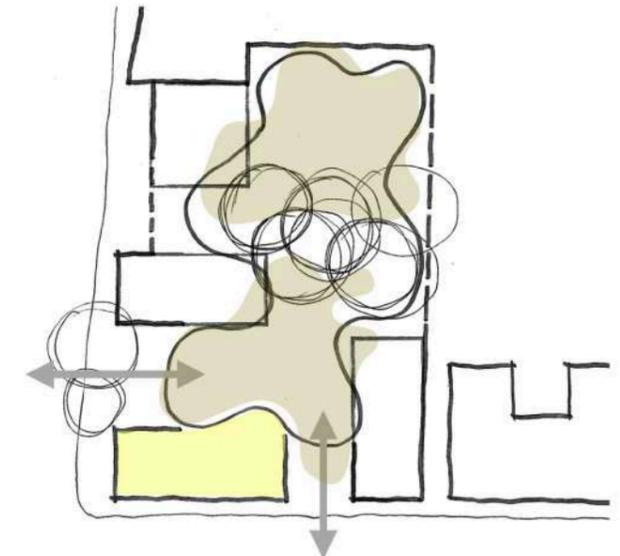


**OPTION D**

This option is a hybrid of options A and C. It also locates the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school. The front facade is opened up in places to allow access points into the school and helping to open up the school to the community.

Built form along Golden Grove St is pulled back from the site boundary expand the school drop-off areas and pull back the main volume from the road edge. The buildings also form a C shape to block views in to the school site from the student accommodation and to help enclose and protect the school.

The exterior facades are very linear and aligned to a grid to reflect the urban fabric around the site, while in the inward facing facades are softer and curved to provide a gentler character to the school.



### **Selected Master Plan Option**

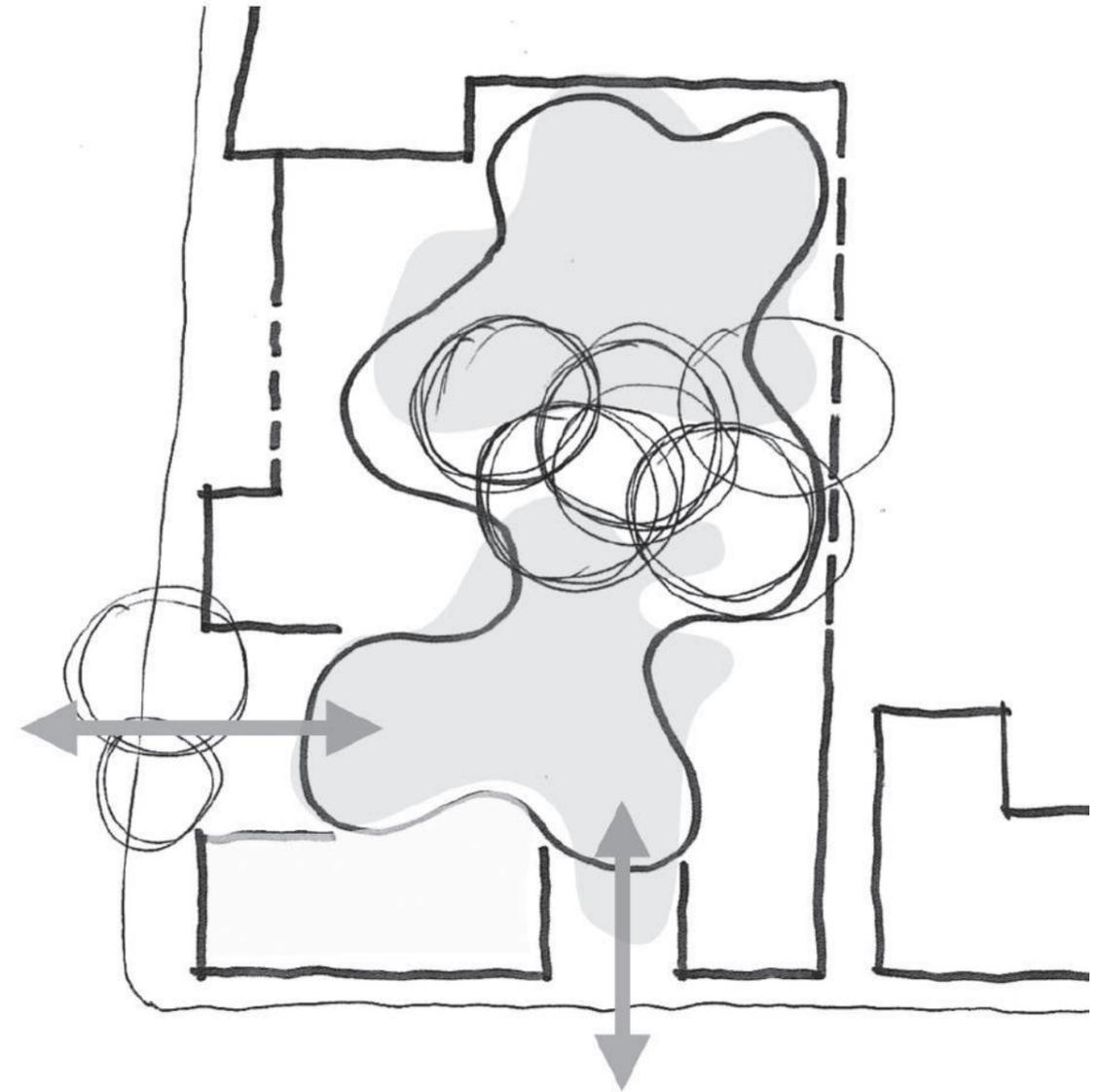
- The design that was developed for the Master Plan Proposal is an amalgamation of Options C and D.
- The developed option removes some floor area that was above the required brief area, creating more open space along the eastern boundary of the site.
- A wall has been proposed along the Abercrombie Street boundary in the location to respond to the surrounding context and provide privacy and security to the school.
- Further development of this option is shown in the Concept Design Proposal on the following pages..



## PROPOSED DESIGN

- The development of a concept for Darlington public school is drawn from the project brief and analysis of the site. The proposal locates the main bulk of the buildings along the edge of the site following the roads and referencing the walls that currently encircle the school.
- The facade is opened up in selected places, allowing generous access points into the school, and making the school accessible to the community.
- The lower built-form along Golden Grove St provides a human scale to the entry points and helps to hold back the main volume of the learning neighbourhoods from the road edge.
- The building forms an L-shape to frame selective views into the school site from the roads and to help enclose and secure the school without the need for extensive fencing.
- The exterior facades are very linear and aligned to a grid to reflect the urban fabric surrounding the site, while the inward-facing facade that addresses the playground is curved to provide a gentler character to the school.
- The volume of the school hall, located on the corner of Golden Grove and Abercrombie Streets, reaches upwards as a welcoming gesture to the local community.
- The library and main COLA have been located in the centre of the school, representing the heart of the campus.

The following pages describe the proposed design.



# BUILT FORM AND URBAN DESIGN

## Height

The Darlington Public School site is located at the nexus between the fine grain of the Darlington terrace houses and the large scale of the University of Sydney.

The urban response to the site is to continue the dominant street alignment of the terrace houses which characterise the surrounding context. The height generally responds to the height of the immediate neighbours, being 3 stories.

The Communal Hall has a dominant location on the site, reflecting its importance to both the school and the wider community. Its height responds to the church diagonally opposite and provides a civic scale to the junction of Golden Grove Street and Abercrombie Street.

The three (3) story wing along Golden Grove, provides accommodation for Preschool, Administration and 2 levels of Learning Hubs. Level 1 and Level 2 are setback from the street to reduce the height impact

The overall height of the western wing corresponds to the height of the heritage item to the north which is approximately 13.450 - 15m in height.

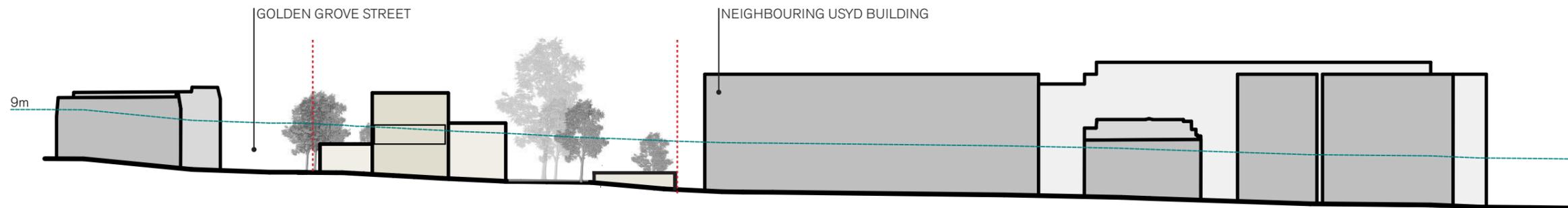
## Bulk and scale

The school locates the main bulk of the development along the the edge of the site, following the roads and referencing the walls that currently encircle the school.

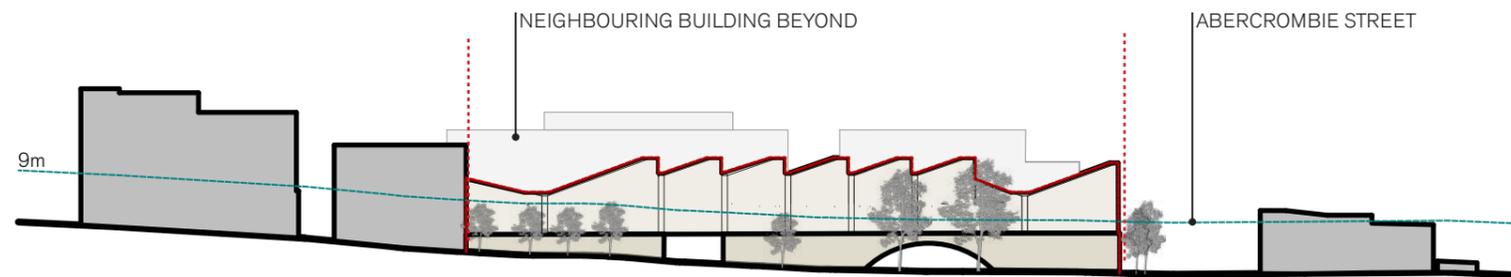
Scale is important in both the urban context of the development and as a place for learning. The rhythm of the existing buildings that characterises the suburb of Darlington has been maintained, where the new development draws reference from the surrounding context and key buildings.

The proportions of the new school development have been carefully considered to respect the streetscape and context, whilst responding to both the needs of the school and the Department of Education.

The scale of the forms and openings have been carefully considered to ensure that a high level of amenity is provided, creating a flexible and future-proof campus with ample access to natural daylight.



Section on Abercrombie St

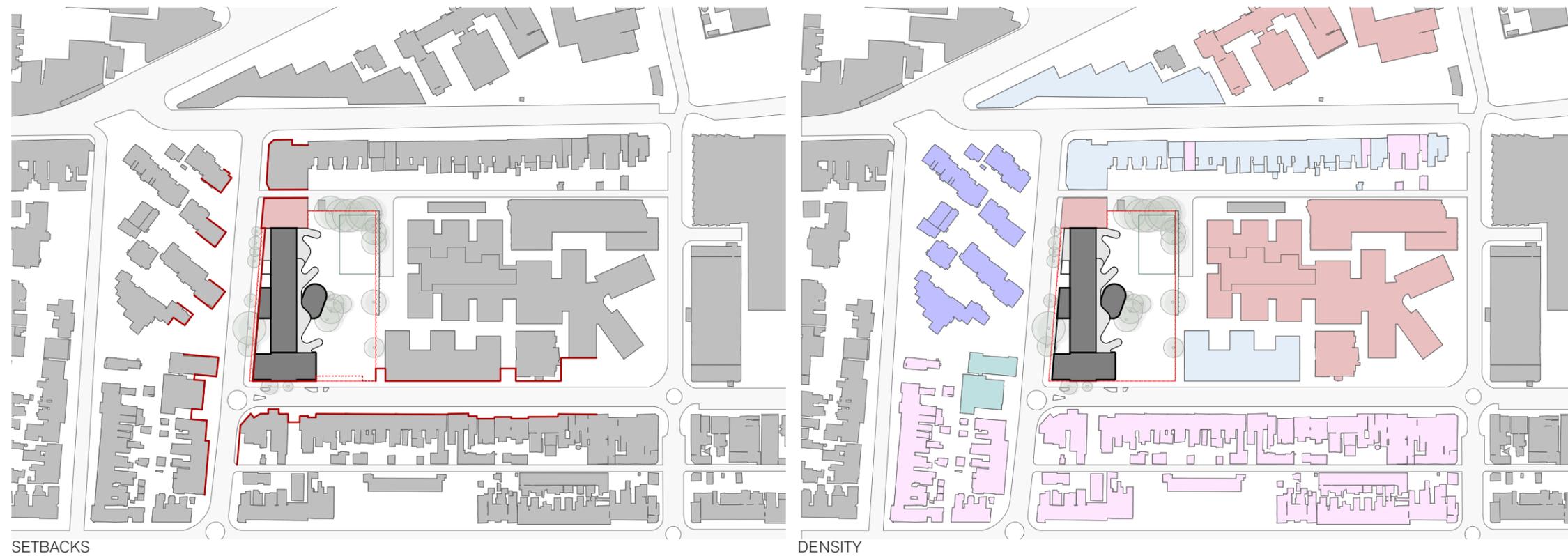


### Setbacks and Density

The school site is surrounded on three sides by road ways; Abercrombie Street to the south, Golden Grove Street to the west and Darlington Lane to the north. To the east, the site is built up with two new University buildings; Sydney Business School and student accommodation. On the north side of Darlington Lane is a proposed student housing redevelopment consisting of a row of terraces along Darlington Road.

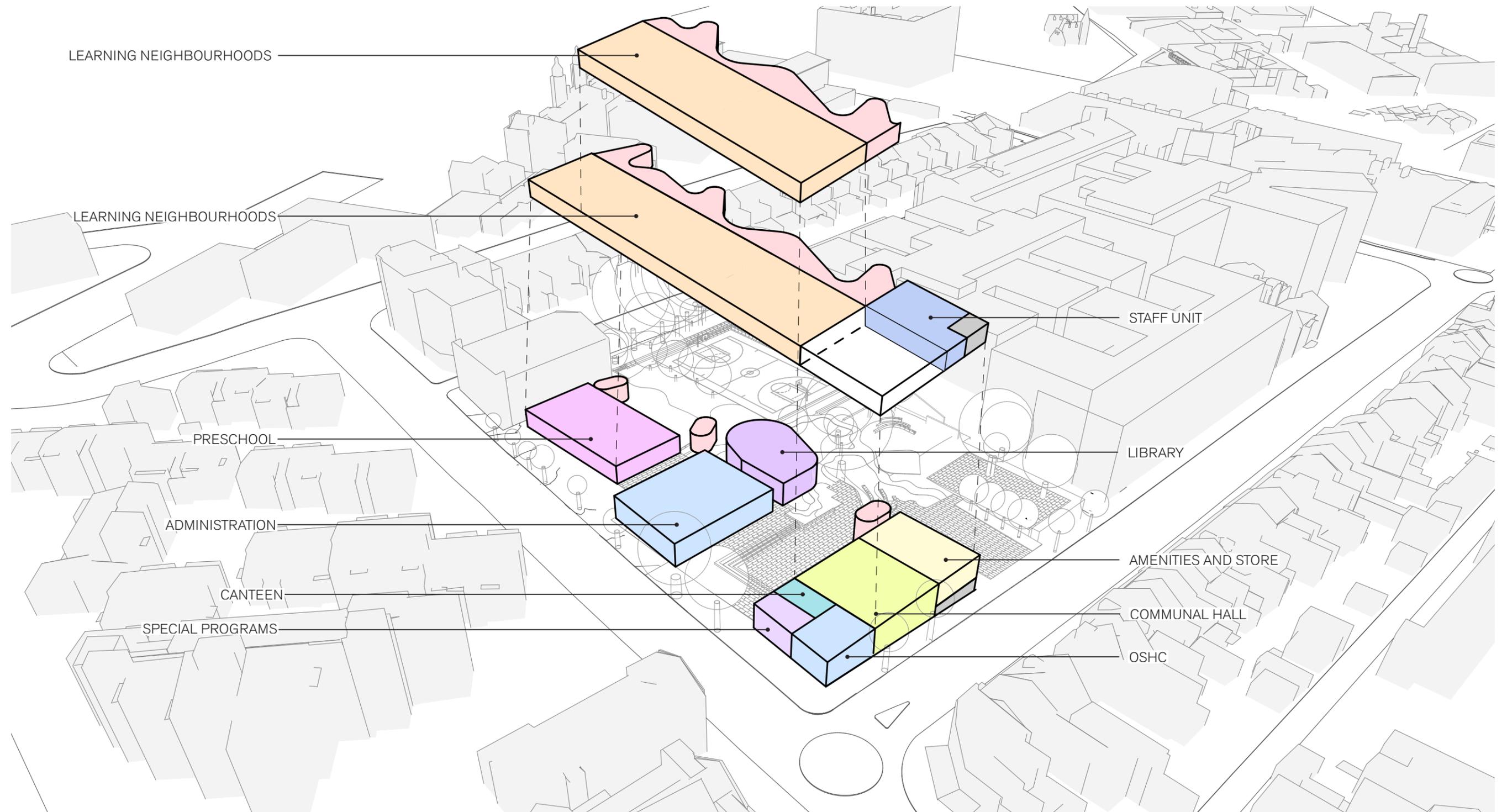
The proposal locates the main bulk of the development along Golden Grove and Abercrombie Streets, forming an L-shape to filter views into the school grounds from the roads, and to help enclose and secure the school without the need for extensive fencing. All new buildings have minimal setbacks from the boundary edge, allowing a continuation of the surrounding streetscape frontage and pattern, and providing more generous play space and landscaping for the school.

The higher volume of the school hall, which is situated in a prominent position on the corner of Golden Grove and Abercrombie Streets, has been setback to provide some relief to the footpath at what is a relatively busy intersection. Overflow space from the hall during public events is provided by the covered forecourt at the main entrance to the school.



# FUNCTIONAL ORGANISATION

## Block and Stack Axonometric Diagram



## Relationship Diagrams

As a result of feedback regarding the preferred spatial and functional layouts of the school we have tested the functional relationship of these areas and created a number of diagrams that are able to help determine where the optimum locations for key spaces in the school can be.

### Preschool

- The pre-school is an important part of Darlington Public School. Its location and the interrelationship between it and the primary school is a key consideration.
- It is important to the school that the pre-schoolers share the main school entrance and feel a part of the school.
- As the preschool opens after the main school, it

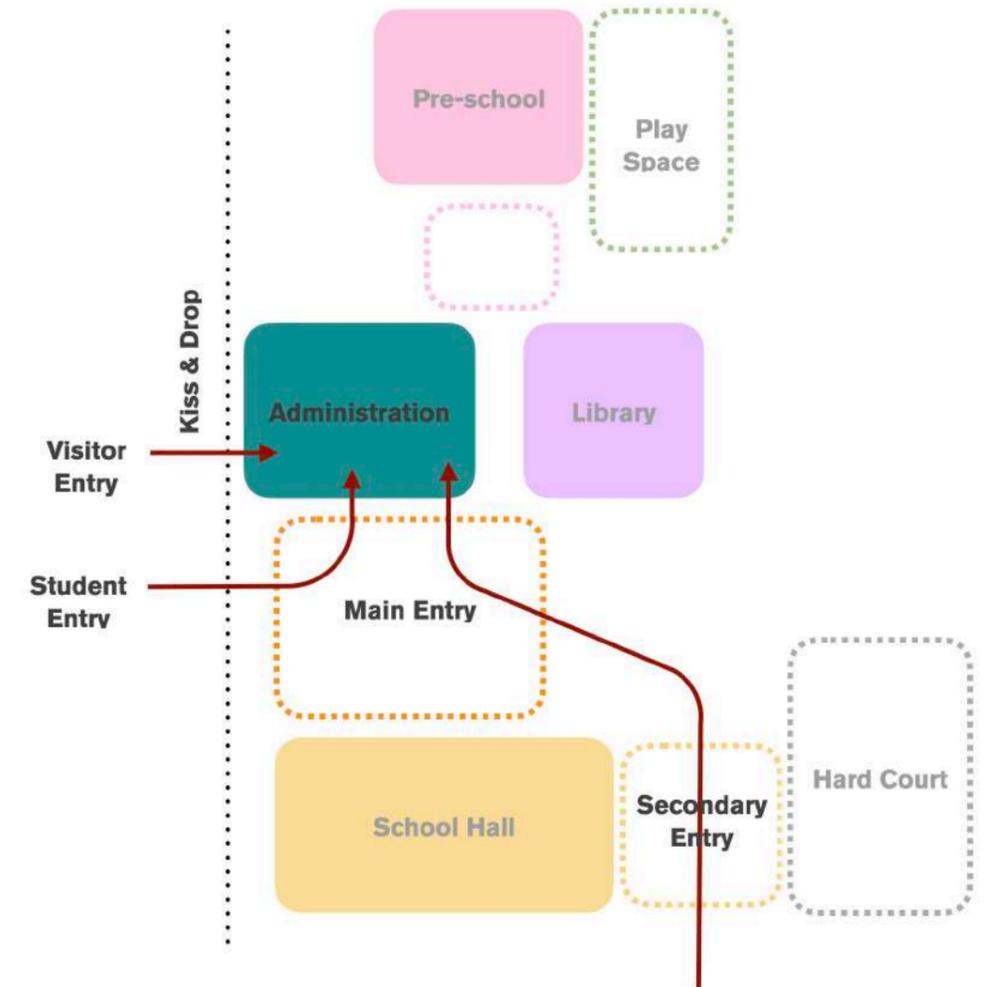
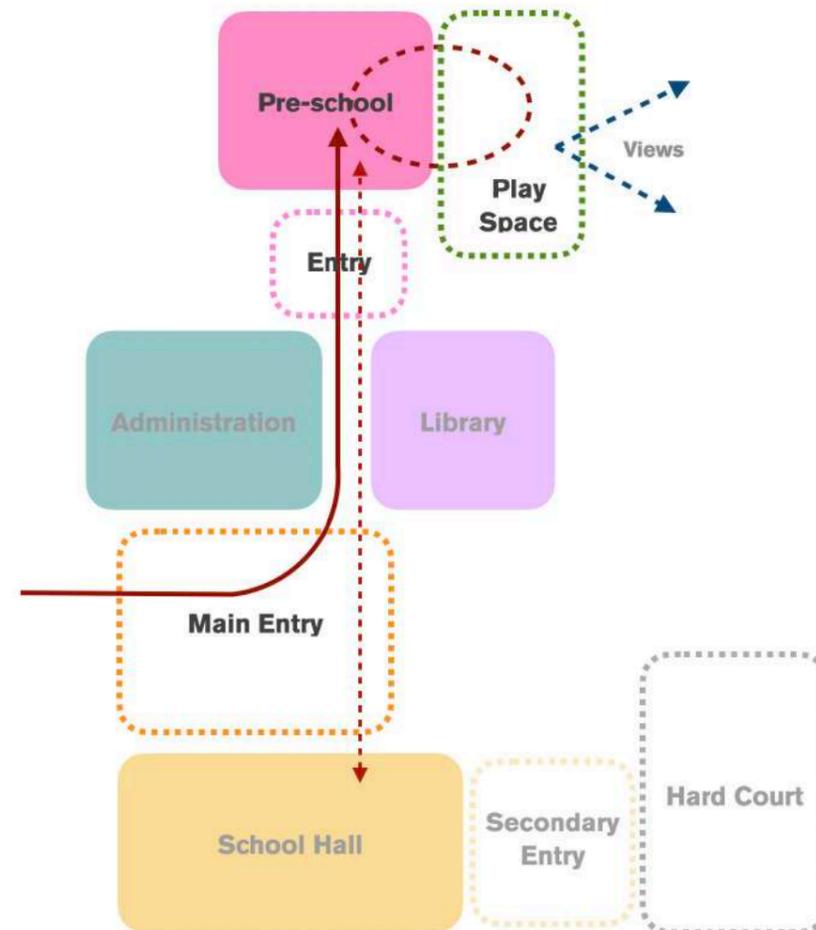
needs a dedicated covered waiting area for parents who also have older children at the school.

- The outdoor play space must be secure but should provide visual access for the pre-schoolers and the primary school children to interact.

### Administration

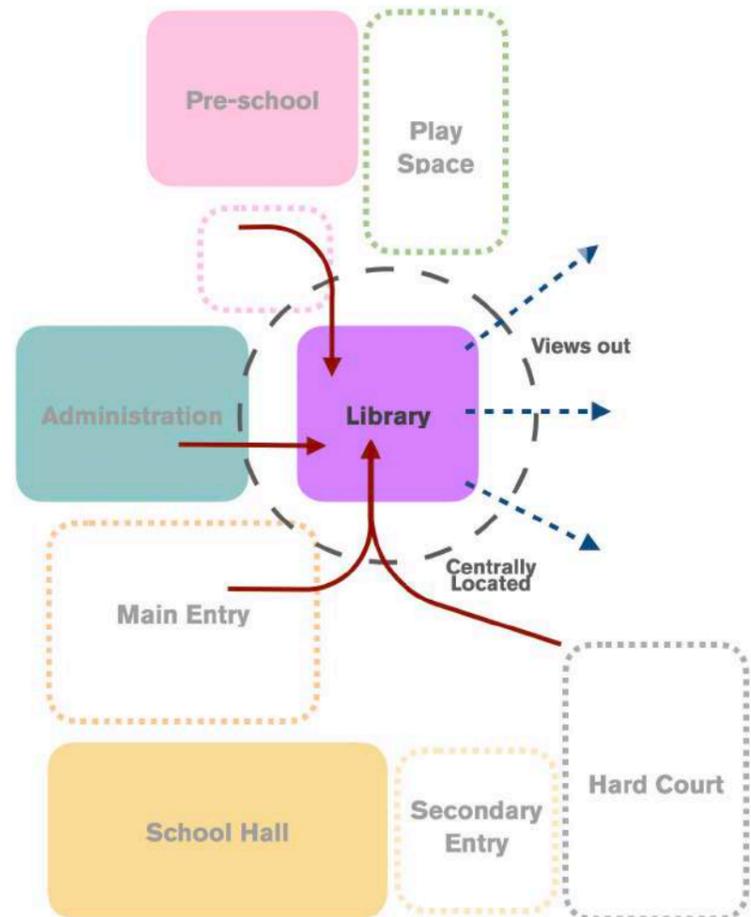
- The school administration is located in a prominent position that is easily accessible by parents and students alike, located near the main entrance.
- It is accessible to visitors without having access to the school grounds.
- Close to the loading zone for service, delivery and emergency vehicles.

- Is centrally located within the school, so that it is at an easy point for access.
- Located in close proximity to the lift



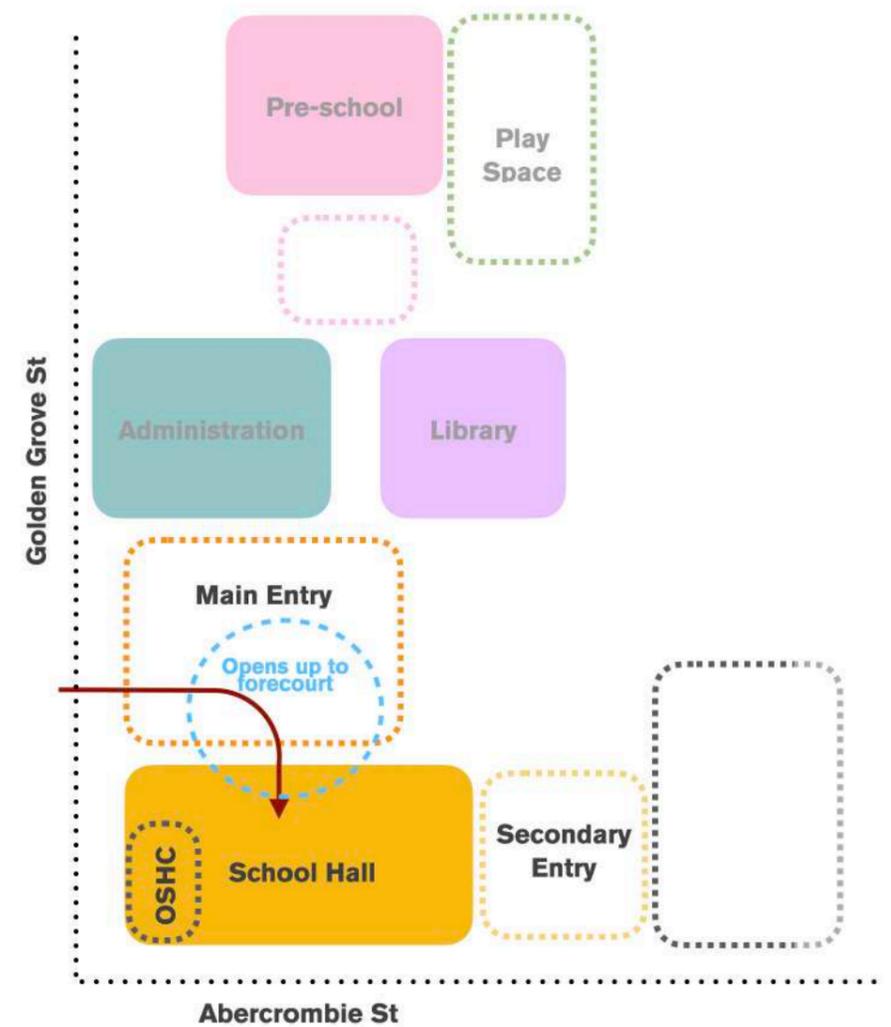
**Library**

- \_The Library is a key learning space for all students at the school.
- \_Locating it centrally enables it to be easily accessed by all students.
- \_Having the library extend out into the play area helps to create a diversity of play spaces.
- \_Can be a refuge for students seeking quieter play, while still allowing them to feel a part of the core of the school.



**School Hall**

- \_The school hall is a place of gathering for the school, for performance, learning and celebration.
- \_It can be a space where the school can choose to welcome the wider community and promote the school in the local area.
- \_Locating it on the corner of Golden Grove and Abercrombie Streets gives it a prominent aspect in the streetscape.
- \_Placing it at the school edge also allows for access to be monitored and when used after hours to prevent visitors from entering the school grounds.
- \_The hall has a central location in the school and can be accessed by all students.
- \_The School Hall will also be used by OSHC.

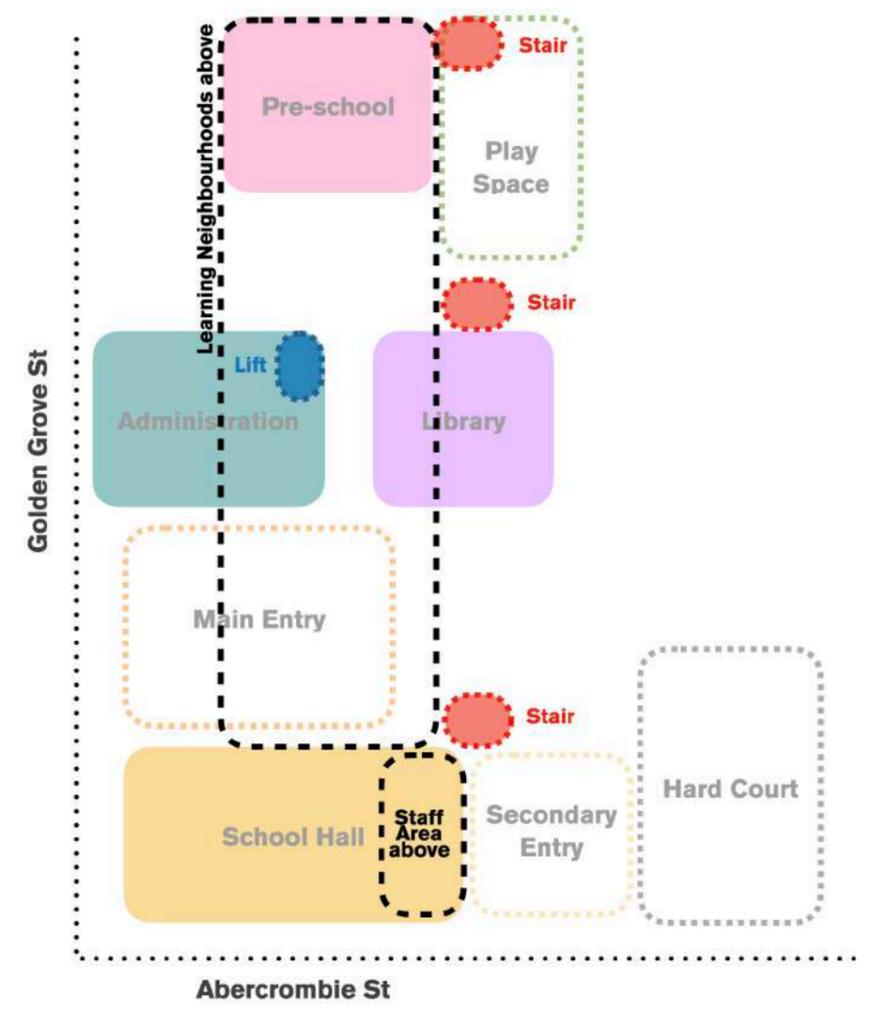
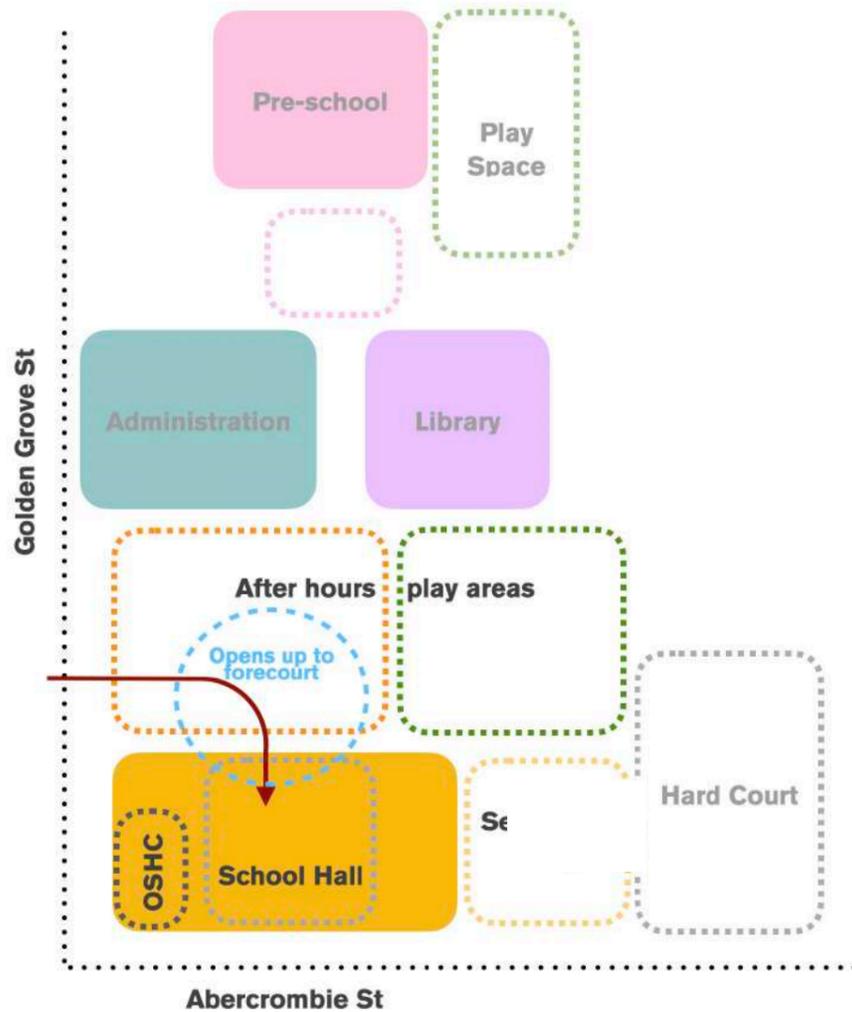


**OSHC**

- \_After hours care has a key place in the use of the school and is seen to be very important in the functioning of the school.
- \_The current educational standard is for the OSHC to share the School Hall.
- \_The main entrance for pick up from OSHC would be from the school's main entrance off Golden Grove Street.
- \_While OSHC will share the main facilities with the Hall, it will have a separate office and storage area to enable it to function independently from the school.

**Vertical Circulation**

- \_As the school is a multi-level school, vertical access is very important in the practical operation of the school, and to provide equitable access to all.
- \_The school will have one lift which will be located centrally within the school plan. This is between the library and administration, close to the main entry to the school.
- \_There are three sets of stairs distributed throughout the school to allow for circulation between the levels and to provide emergency egress.



# CIRCULATION

## Pedestrian Access

The main pedestrian entrance has been located on Golden Grove Street, in a similar location to the existing entrance. A new covered forecourt provides a zone for waiting and gathering and provides a relief along the western boundary of the site. This forecourt also provides a spill-out zone for the school hall.

A secondary entrance has been provided off Abercrombie Street, with bike and scooter parking located in close proximity.

### Circulation Networks

Three access/egress stairs provide vertical circulation to all levels. A central lift provides equitable access. Refer Vertical Circulation Diagram on previous page.

Pathways in the landscaping have been designed to provide equitable access throughout the playground.

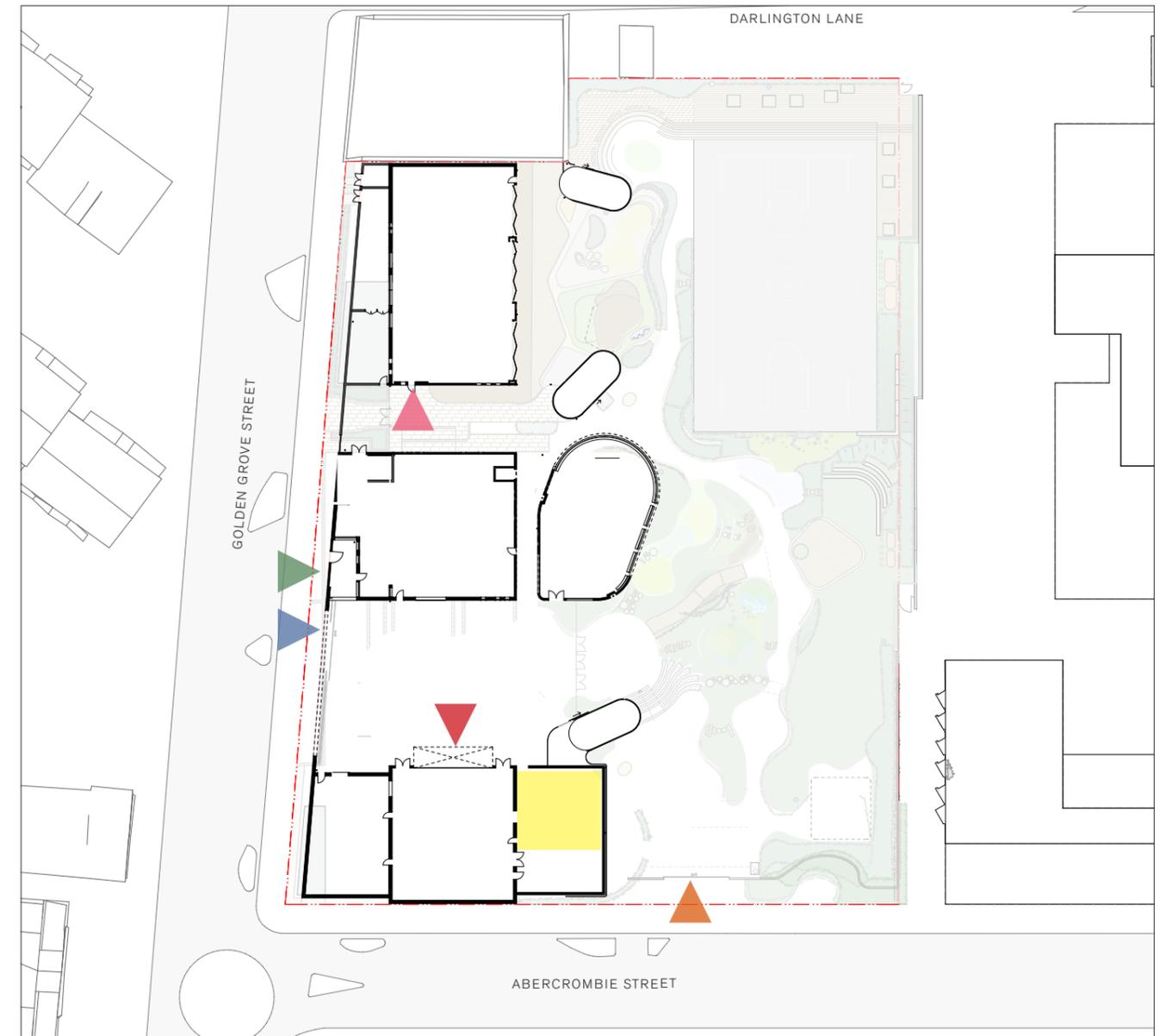
### Wet Weather

Wet weather access is provided throughout the campus. On levels 1 and 2, a double level covered walkway links the learning neighbourhoods and staff area. The administration area, communal hall and preschool are connected via covered undercrofts at ground level.

### Green Travel

The Master Plan provides for 68 bicycle parking spaces. End-of-Trip facilities are provided for staff members to encourage green travel.

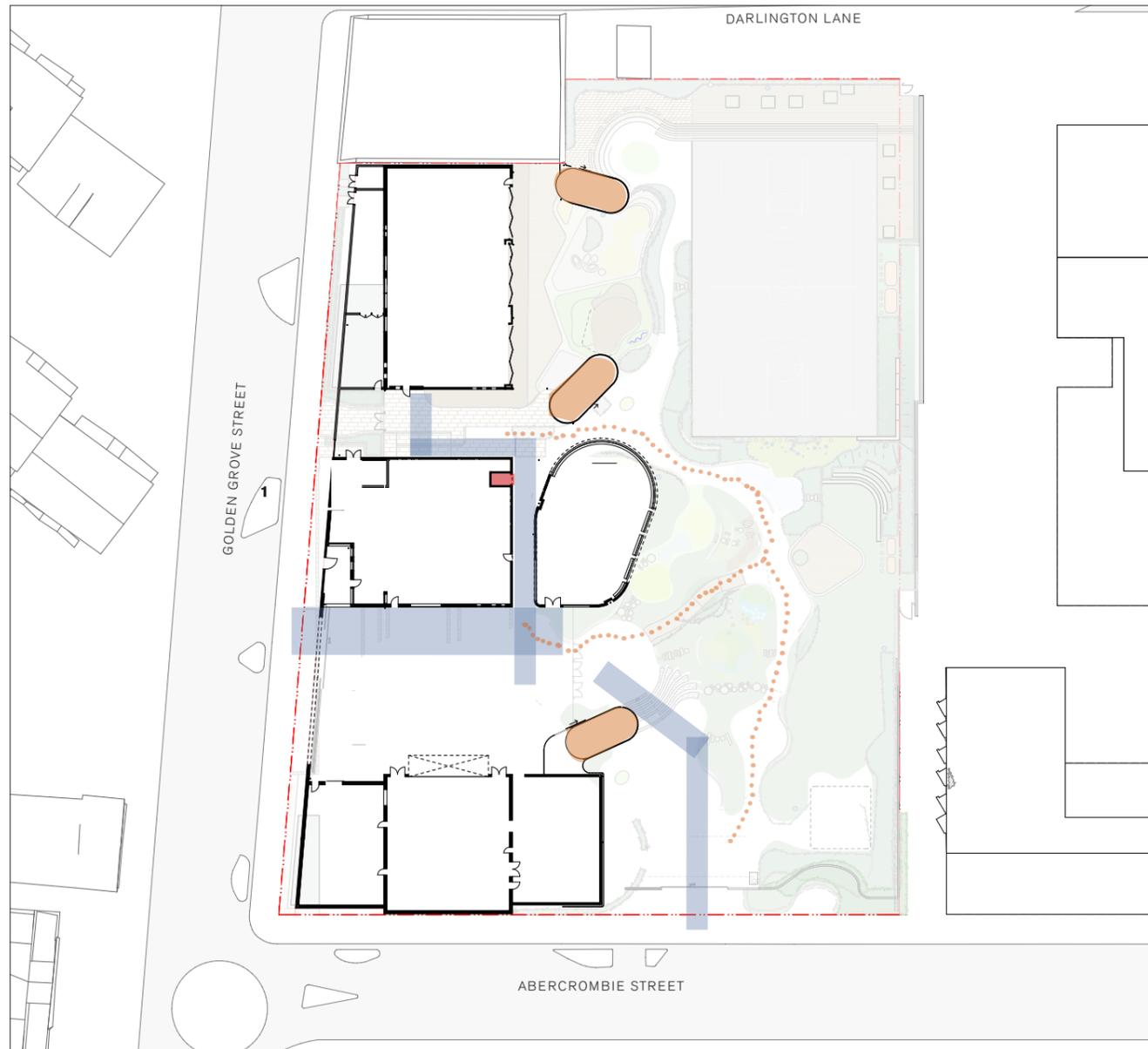
## Pedestrian Entrances and Bicycle Parking



### LEGEND

- ▶ MAIN SCHOOL ENTRANCE
- ▶ SECONDARY SCHOOL ENTRANCE
- ▶ RECEPTION & ADMINISTRATION SECURE ENTRANCE
- ▶ HALL ENTRANCE
- ▶ PRESCHOOL ENTRANCE
- BICYCLE PARKING

## Site Circulation



### LEGEND

- MAIN CIRCULATION ROUTES
- SECONDARY CIRCULATION SPINES
- LIFT
- STAIR

**'Kiss & Ride' and Parking**



**LEGEND**

- PROPOSED KISS & DROP LOCATIONS
- PROPOSED 1/4P PARKING
- PROPOSED ACCESSIBLE PARKING
- PROPOSED DRIVEWAY

Refer Traffic Report for details

**Bus Parking / Loading**



**LEGEND**

- PROPOSED SCHOOL LOADING ZONE / BUS ZONE (OUTSIDE OF KISS & DROP TIMES)

## SERVICING THE SCHOOL

- All deliveries will access the school from the loading zone on Golden Grove Street. Deliveries will be managed through the administration reception.
- Waste is collected and transferred to waste bins located in the bulk storage area on the north-west of the site, adjacent to Golden Grove Street. Kerb-side collection is proposed to be undertaken from the proposed loading zone on Golden Grove Street.
- The main plant area is located behind a perforated brick screen adjacent to Golden Grove Street.
- An additional plant area is located on Level 1 to the south of the site and will be concealed behind a perforated facade.



### LEGEND

- PLANT LOCATION
- BULK WASTE LOCATION FOR KERB-SIDE COLLECTION
- MAINTENANCE ACCESS
- SCHOOL DELIVERIES FROM LOADING ZONE