ETHOS URBAN

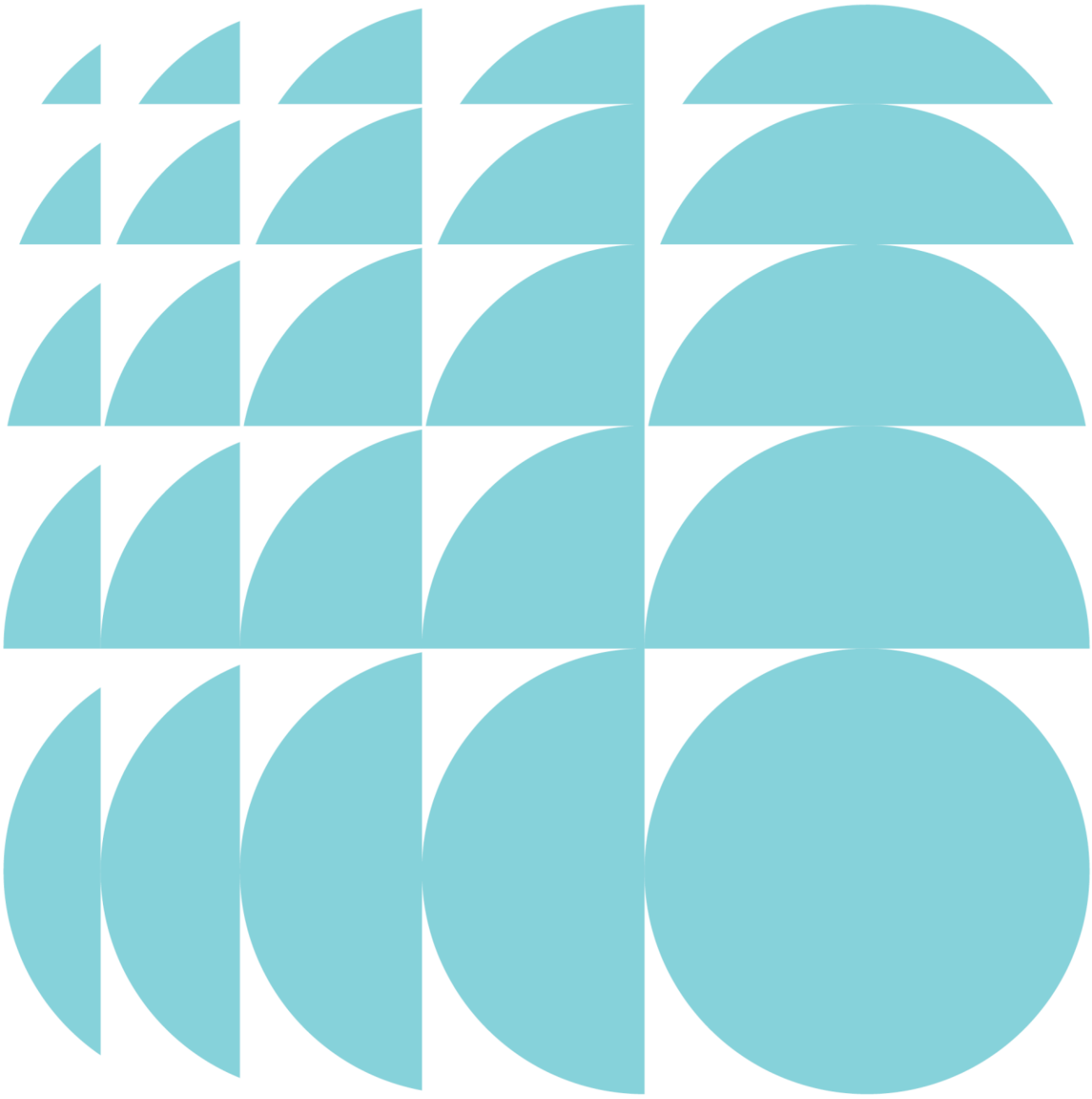
Environmental Impact Statement

Darlington Public School Redevelopment
Golden Grove Street, Darlington

Submitted to NSW Department of Planning, Industry and Environment

On behalf of NSW Department of Education

9 June 2020 | 2200026



CONTACT

Chris McGillick	Principal	cmcgillick@ethosurban.com	0411047748

This document has been prepared by:		This document has been reviewed by:	
			
Jacob Dwyer / Chris McGillick	11 May 2020	Kate Tudehope	11 May 2020

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Ethos Urban Pty Ltd
ABN 13 615 087 931.
www.ethosurban.com
173 Sussex Street, Sydney
NSW 2000 t 61 2 9956 6952

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Statement of Validity

Development Application Details	
Applicant name	School Infrastructure NSW
Applicant address	Level 8, 259 George Street, Sydney
Land to be developed	Darlington Public School, Golden Grove Street, Darlington
Proposed development	Redevelopment of Darlington Public School as described in Section 3.0 of this Environmental Impact Statement
Prepared by	
Name	Chris McGillick
Qualifications	BPlan (Hons)
Address	173 Sussex Street, Sydney
In respect of	State Significant Development - Development Application
Certification	
	I certify that I have prepared the content of this EIS and to the best of my knowledge: it is in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*; all available information that is relevant to the environmental assessment of the development to which the statement relates; and the information contained in the statement is neither false nor misleading.
Signature	
Name	Chris McGillick
Date	9 June 2020

Executive Summary

Purpose of this Report

This submission to the Department of Planning, Industry and Environment (DPIE) comprises an Environmental Impact Statement (EIS) for a Development Application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It relates to the redevelopment of Darlington Public School.

The Darlington Public School redevelopment is identified as State Significant Development in accordance with Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). Development of educational establishments for the purposes of alterations and additions to an existing school with a capital investment value of more than $20 million is State Significant Development (SSD) for the purposes of the EP&A Act. As the proposed development will have a capital investment value exceeding $20 million it is SSD. A CIV statement is provided under separate cover.

A request for the issue of Secretary's Environmental Assessment Requirements (SEARs) was sought on 18 February 2019. Accordingly, the SEARs were issued on 19 March 2019. This submission is in accordance with the DPIE guidelines for SSD applications lodged under Part 4 of the EP&A Act, and addresses the issues raised in the SEARs.

Overview of the Project

This application seeks approval for the redevelopment and expansion of Darlington Public School to accommodate a maximum of 437 primary school students (an increase of 207 students) and an associated preschool for up to 60 children. A photomontage of the proposed development is shown at **Figure 1**. Specifically, consent is sought for the following:

- **Site preparation, demolition and excavation:**
  - Site remediation
  - Demolition
  - Tree removal
  - Minor excavation works to facilitate the new building
  - Installation of civil, hydraulic and electrical services
- **New building:**
  - Construction of a new part 2, part 3-storey building comprising 19 school home bases and pre-school facilities
- **Land use:**
  - Use of the new building for the purpose of a school
  - Use for the purpose of a centre-based child care facility (pre-school)
- **Landscaping:**
  - New landscaping works including pathways, play areas, assembly area and COLA
  - Public domain improvements along Golden Grove Street and Abercrombie Street
- **Other works:**
  - Lot consolidation
  - Installation of fences and gates
  - Modification to the existing on-street pick-up/drop-off zones
  - Removal and reconfiguration of existing driveways
  - Installation of signage including signage zones and a digital display board

The Site

The site is located on the corner of Golden Grove Street and Abercrombie Street in Darlington, within the Sydney LGA. The site is set within a vibrant residential and education precinct, located to the south-east of City Road, a four-lane high street and arterial road corridor between the CBD and the south of Sydney, and to the north of the eastern and western lines rail corridor. The site is owned by NSW Department of Education and is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049. The site's area is 7,253m^2.

The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonaldtown train stations.

Planning Context

Section 5.0 of the EIS considers all applicable legislation in detail. The proposal is consistent with the requirements of all relevant SEPPs. The site is zoned SP2 Educational Establishment. The proposal is permissible with consent and meets the objectives of the subject zone. A Clause 4.6 Variation Request relating to building height prepared by Ethos Urban is provided at **Appendix F**.

Environmental Impacts and Mitigation Measures

This EIS provides an assessment of the environmental impacts of the project in accordance with the SEARs and sets out the undertakings made by the NSW Department of Education to manage and minimise potential impacts arising from the development.

Conclusion and Justification

The EIS addresses the SEARs, and the proposal provides for the redevelopment and expansion of Darlington Public School with modern and improved teaching facilities and outdoor areas. Increased capacity at Darlington Public School will mean students can be educated and cared for close to their homes. This will contribute to meeting forecast demand for education facilities within the Sydney LGA.

The potential impacts of the development are acceptable and are able to be managed. Given the planning merits of the proposal, the proposed development warrants approval by the Minister for Planning and Public Spaces.

Figure 1 **Photomontage of Proposed Development**

Source: *FJMT*

1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to DPIE pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of an application for State Significant Development (SSD).

Development for educational establishments with a capital investment value of more than $20 million is identified in Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) as SSD for the purposes of the EP& A Act. As the proposed development will have a CIV exceeding $20 million it is SSD.

The report has been prepared by Ethos Urban on behalf of NSW Department of Education (DoE), and is based on the Architectural Plans provided by FJMT (see **Appendix A**) and other supporting technical information appended to the report (see Table of Contents).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and the SEARs for the preparation of the EIS, which are included at **Appendix C**. This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report.

1.1 Overview of Proposed Development

This application seeks approval for the redevelopment and expansion of Darlington Public School to accommodate a maximum of 437 primary school students (an increase of 207 students) and an associated preschool for up to 60 children. Specifically, the consent is sought for the following:

- **Site preparation, demolition and excavation:**
  - Site remediation
  - Demolition
  - Tree removal
  - Minor excavation works to facilitate the new building
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- **New building:**
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- **Land use:**
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  - New landscaping works including pathways, play areas, assembly area and COLA
  - Public domain improvements along Golden Grove Street and Abercrombie Street
- **Other works:**
  - Lot consolidation
  - Installation of fences and gates
  - Modification to the existing on-street pick-up/drop-off zones
  - Removal and reconfiguration of existing driveways
  - Installation of signage including signage zones and a digital display board

1.2 Background to the Development

Redevelopment of Darlington Public School will expand the capacity of the school to cater to the growing population of the City of Sydney LGA and the school catchment, as well as replacing the existing, aged teaching spaces with new teaching spaces (see **Section 1.4**).

Darlington Public School currently has an enrolment of 183 students. The existing school comprises dated building stock from the 1970s that is nearing the end of its useable life expectancy. Nonetheless, the school is socially significant in the local community as a place of education, gathering and indigenous learning.

Redevelopment of the school provides the opportunity to meet the growing demand for education as well as developing a strong identity and a sense of place for the school, which will support the school as an inclusive, community-focused campus that can support the holistic education of each learner.

1.2.1 School Infrastructure Works

A range of infrastructure improvement works are occurring across the Darlington Public School campus under a separate application via Part 5 of the EP&A Act and as Exempt Development under *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (Education SEPP). The infrastructure improvement works are required to ensure the ongoing operation of the school and are separate to the subject SSD works. The works include:

- Construction of a new sports court and associated earthworks/landscaping;
- Demolition of buildings;
- Minor internal alterations; and
- Landscaping.

1.2.2 Other Applications

To enable the infrastructure works outlined at **Section 1.2.1**, a Local DA to the City of Sydney under Part 4 of the EP&A Act has been made for the temporary re-location of the existing pre-school (on-site) and removal of several trees. The approximate location of these works on the school site is shown at **Figure 2** and **Figure 3**.

Figure 2 **Location of Local DA Temporary Preschool**

Source: *FJMT*

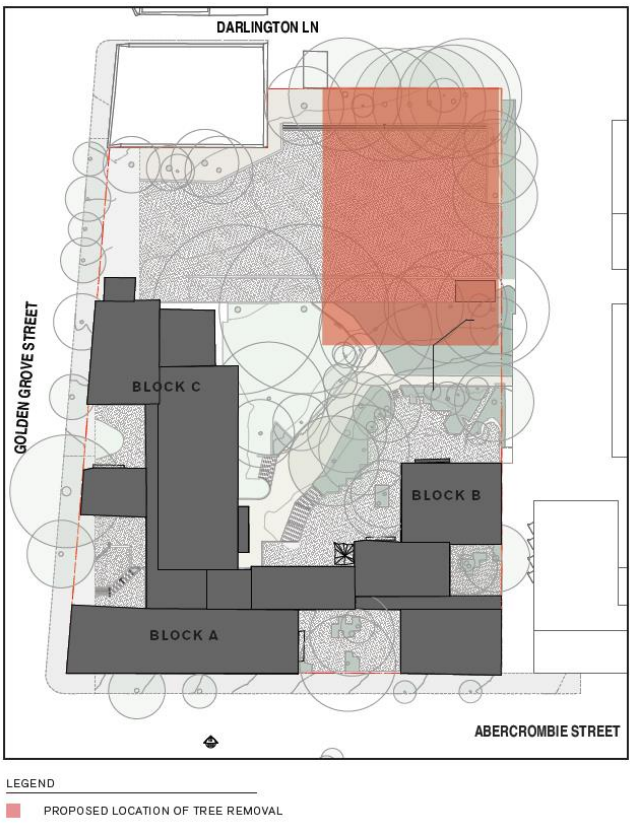

Figure 3 **Location of DA Tree Removal Works**

Source: *FJMT*

1.3 Objectives of the Development

The objectives of the Darlington Public School Redevelopment are to:

- Expand the student capacity of the school to meet the educational needs of existing and future student population growth;
- Support a diverse and collaborative learning environment and ability to meet the Educational Facilities Standards and Guidelines (EFSG);
- Create a strong identity and address for the school;
- Celebrate and educate about the school's Indigenous heritage and culture;
- Improve safety, accessibility and amenity for students, staff and other users; and
- Create a clear campus heart/central plaza and improve connections from the campus to the community.

1.4 Analysis of Alternatives

Strategic Need for the Proposal

The City of Sydney LGA is currently undergoing significant growth, with increased population and housing driving demand for increased infrastructure, including schools. Population forecasts show that in the approximate catchment of the school site, the population of 5 –11 year old children is forecast to grow by approximately 10% between 2016 and 2036 – from 477 to 881 people.

The residential population surrounding the site is mixed, with a high proportion of young people, including students attending university and living in group households, as well as households with children and lone person households.

Analysis completed by DoE notes that the number of primary school students living in the Newtown Primary Cluster (the education planning catchment where the site is located), will grow by approximately 350 students between 2021 and 2036, resulting in a shortfall of 13 teaching spaces across the Cluster. Almost half of this growth will occur in the catchment of Darlington Public School. An enrolment of 415 students is forecast at Darlington Public School for the year 2036.

In addition to the demographic and population analysis/projections, the existing school buildings on the site are ageing and will soon reach the end of their serviceable lifespan. The existing teaching spaces are no longer fit for modern and future teaching methods.

As such, the redevelopment of Darlington Public School will meet the demands of the growing community and provide modern, future-proofed teaching spaces.

Initial Concept Design

An initial concept design was developed for the site and presented to the Project Reference Group (PRG), school community and State Design Review Panel. These stakeholders raised issues with the design and how it impacted the school site. The initial concept design concentrated the built form of the school to the north of the site, with open play area dominating the site and meeting the street frontages. FJMT was subsequently engaged to provide an independent review of the design. Following their review, FJMT developed four new masterplan options for the school redevelopment to be presented to the PRG, community and State Design Review Panel, described below.

Alternative Options

Following an independent review of the initial concept design, FJMT developed four new masterplan options for the site. These options are shown in **Figure 4** and described briefly below (refer to **Appendix B** for a detailed analysis of the design options considered):

- **Option A**: Building bulk located along the edge of the site, forming a C-shape to limit views into the playground. Front façade opened up on Abercrombie Street and Golden Grove Street to allow access points and open up to the community.
- **Option B**: A series of separated built forms linked by bridges with colonnades at ground level, to limit the footprint on the ground. The central area is left open to allow for sun access to the playground.
- **Option C**: Main building bulk located along the edge of the site to define the street edge and reference the existing school walls. Façade openings to the street allow access and connections to the community. A curved, covered walkway around building forms and areas provide shelter to students. School hall and library located at the corner of Golden Grove and Abercrombie Streets to emphasise the site corner and street intersection.
- **Option D**: A hybrid of Option A and Option C, main building bulk is located along the edge of the site with façade openings to the street providing access and connectivity with the community. Built form along Golden Grove Street is pulled back from the boundary to allow for drop off/pick up. The buildings form a partial C-shape to prevent views into the play area. Exterior facades are linear and define the street, while internally the form is softer and curvilinear to provide a gentle internal character to the school.

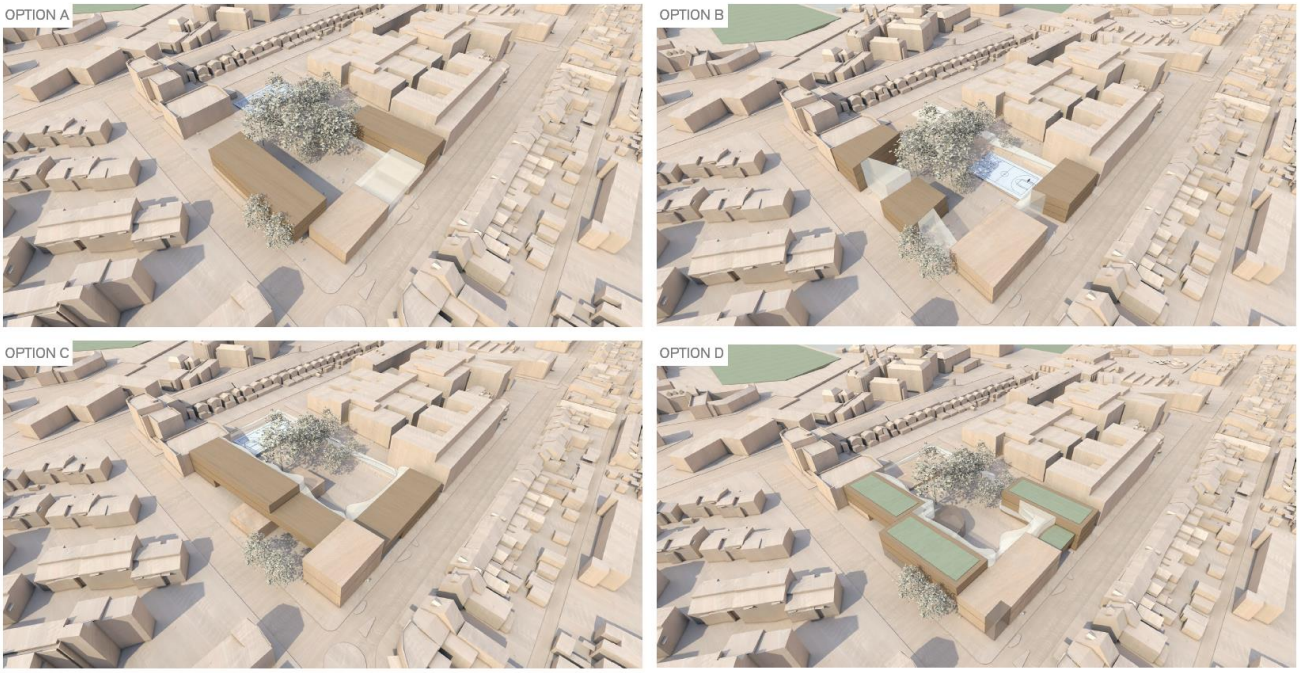

Figure 4 FJMT Masterplan Options for Redevelopment of the School

Source: FJMT

Do Nothing

Under the 'Do Nothing' scenario, the current facilities at Darlington Public School would not be able to accommodate the projected increases in student numbers. This would likely result in poorer education outcomes and would compromise health and safety standards as student numbers would exceed the capacity of existing infrastructure. In addition, the existing buildings at the site are approaching the end of their useable lifespan and represent an outdated learning environment that is not appropriate for future teaching needs.

Proposal

The preferred option for redevelopment of Darlington Public School is a combination of elements of masterplan Options C and D. The proposal was selected as it creates more open space along the eastern boundary of the site and includes a street-wall along a portion of the Abercrombie Street boundary to improve safety and visual privacy. The selected masterplan option is shown in **Figure 5** below. After being selected as the preferred option, the masterplan option was developed into the detailed proposal described in **Section 3.0** of this EIS.

The revised masterplan was presented to the State Design Review Panel in November 2019, who endorsed and commended the design.

Figure 5 Selected Masterplan Option for the proposed redevelopment

Source: FJMT

1.5 Secretary's Requirements

In accordance with section 4.39 of the EP&A Act, the Secretary of the Department of Planning, Industry and Environment issued the requirements for the preparation of the EIS on 19 March 2019. A copy of the Secretary's Environmental Assessment Requirements (SEARs) is included at **Appendix C**.

When the revised design for the site was developed by FJMT, DPIE was contacted to confirm whether new SEARs were required. DPIE confirmed that the originally issued SEARs remained relevant and should continue to form the requirements for the environmental assessment.

Table 1 provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

Table 1 Secretary's Requirements

Requirement	Location in Environmental Assessment
General	
The Environmental Impact Statement (EIS) must address the *Environmental Planning and Assessment Act 1979* and meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000.	Environmental Impact Statement
Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.	Section 6.0
Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include: • adequate baseline data • consideration of potential cumulative impacts due to other development in the vicinity (completed, underway or proposed) • measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment.	Section 5.0 Section 7.0

Requirement	Location in Environmental Assessment	
The EIS must be accompanied by a report from a qualified quantity surveyor providing: • a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived • an estimate of the jobs that will be created by the future development during the construction and operational phases of the development • certification that the information provided is accurate at the date of preparation.	Provided under separate cover	
Key Issues	**Report / EIS**	**Technical Study**
Statutory and Strategic Context		
Address the statutory provisions contained in all relevant environmental planning instruments, including: • Biodiversity Conservation Act 2016 • State Environmental Planning Policy (State & Regional Development) 2011 • State Environmental Planning Policy (Infrastructure 2007) • State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 • State Environmental Planning Policy No. 64 – Advertising and Signage • State Environmental Planning Policy No.55 – Remediation of Land • Draft State Environmental Planning Policy (Remediation of Land) • Draft State Environmental Planning Policy (Environment) and • Sydney Local Environmental Plan 2012.	Section 5.1	-
Permissibility Detail the nature and extent of any prohibitions that apply to the development	Section 5.1	-
Development Standards Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.	Section 5.1	Appendix F
Policies		
Address the relevant planning provisions, goals and strategic planning objectives in the following: • NSW State Priorities • The Greater Sydney Regional Plan, A Metropolis of three cities • Future Transport Strategy 2056 • State Infrastructure Strategy 2018 – 2038 Building the Momentum • Sydney's Cycling Future 2013 • Sydney's Walking Future 2013 • Sydney's Bus Future 2013 • Crime Prevention Through Environmental Design (CPTED) Principles • Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017) • Eastern City District Plan • Sydney Development Control Plan 2012 • relevant City of Sydney policies, codes and guidelines (where required pursuant to relevant Local Environmental Plan policies).	Section 5.1	-
Operation		
Provide details of the existing and proposed school operations, including staff and student numbers, school hours of operation, and operational details of any proposed before/after school care services and/or community use of school facilities.	Section 3.17	Appendix B
Provide a detailed justification of suitability of the site to accommodate the proposal.	Section 5.14	Appendix B
Provide details of how the school will continue to operate during construction activities of the new primary and secondary school, including proposed mitigation measures.	Section 3.16 Section 5.10	Appendix K
Built Form and Urban Design		
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	Section 3.5.1 Section 5.2	Appendix B

Requirement	Location in Environmental Assessment	
Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and colours.	Section 3.5.1 Section 5.2	Appendix B
Provide details of any digital signage boards, including size, location and finishes.	Section 3.14	Appendix A Appendix B
Clearly demonstrate how design quality will be achieved in accordance with Schedule 4 Schools – Design Quality Principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools.	Section 5.1	Appendix B
Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	Section 3.9 Section 3.12 Section 5.4.5	Appendix B Appendix W
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.	Section 2.0 Section 1.4 Section 3.4	Appendix A Appendix B Appendix I
Provide a detailed site-wide landscape strategy, including consideration of equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation.	Section 3.7	Appendix I Appendix J
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.	Section 5.3.3	Appendix B Appendix EE
Address Crime Prevention Through Environmental Design (CPTED) Principles.	Section 5.3.5	Appendix B
Demonstrate good environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.	Section 5.3	Appendix B
Demonstrate that Aboriginal culture and heritage is considered and incorporated holistically in the design proposal	Section 5.7	Appendix B Appendix N
Detail ESD principles including sustainability targets and integration of these in the design approach	Section 3.11 Section 5.12	Appendix B Appendix X
Demonstrate how environmental design will be achieved in accordance with the Environmental Design in Schools Manual (https://www.governmentarchitect.nsw.gov.au/guidance/environmental-design-in-schools	Section 3.11	Appendix B Appendix H
Environmental Amenity		
Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing and acoustic impacts.	Section 5.3 Section 5.8	Appendix A Appendix B Appendix G
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).	Section 5.3.3	Appendix B Appendix EE
Include a lighting strategy and measures to reduce spill into the surrounding sensitive receivers.	Section 3.15 Section 5.13	Appendix B
Identify any proposed use of the school outside of school hours (including weekends) and assess any resultant amenity impacts on the immediate locality and proposed mitigation measures.	Section 3.17 Section 5.4.4 Section 5.8.1	Appendix B Appendix L Appendix G
Detailed outline of the nature and extent of the intensification of use associated with the increased floor space, particularly in relation to the proposed increase in staff and student numbers.	Section 3.17 Section 5.2	Appendix B
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.	Section 5.3	Appendix A Appendix B
Staging		
Provide details regarding the staging of the proposed development (if any).	Section 3.16 Section 5.10 Section 5.11	Appendix B Appendix K

Requirement	Location in Environmental Assessment	
Transport and Accessibility		
Include a transport and accessibility impact assessment, which details, but not limited to the following:	Section 5.4	Appendix L
accurate details of the current daily and peak hour vehicle, existing and future public transport networks and pedestrian and cycle movement provided on the road network located adjacent to the proposed development	Section 2.2.6	Appendix L
details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips based on surveys of the existing and similar schools within the local area	Section 5.4.4	Appendix L
the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development	Section 5.4.4	Appendix L
measures to integrate the development with the existing/future public transport network	Section 5.4.7 Section 3.10	Appendix L
the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for, and details of, upgrades or road improvement works, if required (Traffic modelling is to be undertaken using SIDRA network modelling for current and future years)	Section 5.4.4	Appendix L
the identification of infrastructure required to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections, additional school bus routes along bus capable roads (i.e. minimum 3.5 m wide travel lanes), additional bus stops or bus bays	Section 5.4 Section 3.9	Appendix L
details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site	Section 5.4.7	Appendix L
the proposed walking and cycling access arrangements and connections to public transport services	Section 3.8 Section 3.10	Appendix L
the proposed access arrangements, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones	Section 3.8 Section 3.9 Section 3.10 Section 5.4	Appendix L
proposed bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance	Section 5.4.3	Appendix L
proposed number of on-site car parking spaces for teaching staff and visitors and corresponding compliance with existing parking codes and justification for the level of car parking provided on-site	Section 5.4.2	Appendix L
an assessment of the cumulative on-street parking impacts of cars and bus pick-up/drop-off, staff parking and any other parking demands associated with the development	Section 5.4.2	Appendix L
an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures and personal safety in line with CPTED	Section 5.4	Appendix L
emergency vehicle access, service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times)	Section 5.4.5	Appendix L
the preparation of a preliminary Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of the impact in relation to construction traffic addressing the following: • assessment of cumulative impacts associated with other construction activities (if any) • an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity	Section 5.4.6 Section 5.10.3	Appendix L

Requirement	Location in Environmental Assessment	
• details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process • details of anticipated peak hour and daily construction vehicle movements to and from the site • details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle • details of temporary cycling and pedestrian access during construction.		
Relevant Policies and Guidelines: • Guide to Traffic Generating Developments (Roads and Maritime Services) • EIS Guidelines – Road and Related Facilities (DoPI) • Cycling Aspects of Austroads Guides • NSW Planning Guidelines for Walking and Cycling • Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development • Standards Australia AS2890.3 (Bicycle Parking Facilities).	Section 5.4	Appendix L
Heritage		
The EIS must provide a heritage assessment addressing potential impacts to any State and local heritage items, including but not limited to, conservation areas, relics, and views. Where any impacts are identified, the assessment must:	Section 5.5	Appendix M
be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria)	Section 5.5	Appendix M
outline the proposed mitigation and management measures generally consistent with the NSW Heritage Manual (1996)	Section 5.5	Appendix M
consider impacts including, but not limited to, vibration, demolition, archaeological disturbance	Section 5.5	Appendix M
where potential archaeological impacts have been identified develop an appropriate archaeological assessment methodology, including research design, to guide physical archaeological test excavations, and include the results of these test excavations.	Section 5.5	Appendix M
provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items on the site and within proximity and the adjoining heritage conservation area in accordance with the guidelines in the NSW Heritage Manual.	Section 5.5	Appendix M
address any archaeological potential and significance on the site and the impacts the development may have on this significance	Section 5.5	Appendix M
address the significance of the buildings proposed to be demolished.	Section 5.5	Appendix M
Social Impacts		
Include an assessment of the social consequences of the schools' relative location and decanting activities if proposed.	Section 5.6	Appendix O
Aboriginal Heritage		
Identify and describe the Aboriginal cultural heritage values that exist across the site and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation.	Section 5.7	Appendix N
Identify and address the Aboriginal cultural heritage values in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).	Section 5.7	Appendix N
Undertake consultation with Aboriginal people and document in accordance with Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values of Aboriginal people who have a cultural association with the land are to be documented in the ACHAR.	Section 5.7	Appendix N
Identify, assess and document all impacts on the Aboriginal cultural heritage values in the ACHAR.	Section 5.7	Appendix N
The EIS and the supporting ACHAR must demonstrate attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts	Section 5.7	Appendix N

Requirement	Location in Environmental Assessment	
are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.		
Noise and Vibration		
Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, construction-related work. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.	Section 5.8.2	Appendix G
Identify and assess operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.	Section 5.8.1	Appendix G
Relevant Policies and Guidelines: • NSW Noise Policy for Industry 2017 (EPA) including Fact Sheets A and B. • Interim Construction Noise Guideline (DECC) • Assessing Vibration: A Technical Guideline 2006 • Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008).	Section 5.8	Appendix G
Contamination		
Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with the provisions of SEPP 55.	Section 2.2.7 Section 5.13	Appendix P Appendix Q Appendix R
Undertake a hazardous materials survey of all existing structures and infrastructure that may be encountered during demolition, site preparation and bulk excavation prior to any demolition or site preparation works commence.	Section 5.13	Appendix S
Relevant Policies and Guidelines: • Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP). • Guidelines for Consultants Reporting on Contaminated Sites 2011 (EPA) • The National Environment Protection (Assessment of Site Contamination) Measure.	Section 5.1	Appendix P Appendix Q Appendix R Appendix S
Utilities		
Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure.	Section 3.12	Appendix B Appendix T Appendix FF Appendix HH
Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.	Section 3.12 Section 5.11	Appendix GG
Water-related Infrastructure Requirements		
Determine service demands following servicing investigations and demonstrate that satisfactory arrangements for drinking water, wastewater, and recycled water (if required) services have been made	Section 3.12 Section 5.11 Section 5.13	Appendix T Appendix FF Appendix GG
Obtain endorsement and/or approval from Sydney Water to ensure that the proposed development does not adversely impact on any existing water, wastewater or stormwater main, or other Sydney Water asset, including any easement or property. When determining landscaping options, the proponent should take into account that certain tree species can cause cracking or blockage of Sydney Water pipes and therefore should be avoided.	Section 3.12 Section 5.11 Section 5.13	Appendix T Appendix FF Appendix GG
Ensure that satisfactory steps/measures been taken to protect existing stormwater assets, such as avoiding building over and/or adjacent to stormwater assets and building bridges over stormwater assets. The proponent should consider taking measures to minimise or eliminate potential flooding, degradation of water quality, and avoid adverse impacts on any heritage items, and create pipeline easements where required.	Section 3.12 Section 5.11 Section 5.13	Appendix T Appendix FF Appendix GG

Requirement	Location in Environmental Assessment	
Integrated Water Cycle Management		
Outline any sustainability initiatives that will minimise/reduce the demand for drinking water, including any alternative water supply and end uses of drinking and non-drinking water that may be proposed, and demonstrate water sensitive urban design (principles are used), and any water conservation measures that are likely to be proposed.	Section 3.12 Section 5.11 Section 5.13	Appendix T Appendix GG
Drainage		
Detail measures to minimise operational water quality impacts on surface waters and groundwater.	Section 5.11.1	Appendix T
Stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties.	Section 5.11.1	Appendix T
Assess, quantify and report on the runoff impacts during demolition, site preparation, bulk excavation, construction and construction-related work.	Section 5.11.1	Appendix T
Relevant Policies and Guidelines: • Guidelines for development adjoining land and water managed by DECCW (OEH, 2013).	Section 5.11.1	Appendix T
Flooding		
Identify flood risk on-site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity. If there is a material flood risk, include design solutions for mitigation.	Section 5.11.2	Appendix T
Bushfire		
Address bushfire hazard and, if relevant, prepare a report that addresses the requirements for Special Fire Protection Purpose Development as detailed in Planning for Bush Fire Protection 2006 (NSW RFS).	Section 5.13	-
Biodiversity Assessment		
Biodiversity impacts related to the proposed development (SSD 9914) are to be assessed in accordance with the Biodiversity Assessment Method and documented in a Biodiversity Development Assessment Report (BDAR). The BDAR must include information in the form detailed in the *Biodiversity Conservation Act 2016* (s6.12), *Biodiversity Conservation Regulation 2017* (s6.8) and Biodiversity Assessment Method.	Section 5.9.2	Appendix U
The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method.	Section 5.9.2	Appendix U
The BDAR must include details of the measures proposed to address the offset obligation as follows: • the total number and classes of biodiversity credits required to be retired for the development/project • the number and classes of like-for-like biodiversity credits proposed to be retired • the number and classes of biodiversity credits proposed to be retired in accordance with the variation rules • any proposal to fund a biodiversity conservation action • any proposal to make a payment to the Biodiversity Conservation Fund.	Section 5.9.2	Appendix U
If seeking approval to use the variation rules, the BDAR must contain details of the reasonable steps that have been taken to obtain requisite like-for-like biodiversity credits.	Section 5.9.2	Appendix U
The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under s6.10 of the *Biodiversity Conservation Act 2016*.	Section 5.9.2	Appendix U
Where a Biodiversity Assessment Report is not required, engage a suitably qualified person to assess and document the flora and fauna impacts related to the proposal. *Note: Notwithstanding these requirements, the Biodiversity Conservation Act 2016 requires that State Significant Development Applications be accompanied by a*	Section 5.9.2	Appendix U

Requirement	Location in Environmental Assessment	
Biodiversity Development Assessment Report unless otherwise specified under the Act.		
Sediment, Erosion and Dust Controls		
Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles during demolition, site preparation, bulk excavation, construction and construction-related work.	Section 5.11.3 Section 5.10.1	Appendix T
Relevant Policies and Guidelines: • Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom) • Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA) • Guidelines for development adjoining land and water managed by DECCW (OEH, 2013).	Section 5.11.3 Section 5.10.1	Appendix T
Waste		
Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	Section 5.10.2 Section 5.13	Appendix V Appendix W
Identify and detail how any asbestos waste, lead-based pain and Polychlorinated biphenyls (PCBs) that may be encountered will be handled, transported and disposed.	Section 5.10.2 Section 5.13	Appendix S Appendix V
Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.	Section 3.9 Section 5.13 Section 5.4.5	Appendix B Appendix W
Assess, quantify and report on waste management in the context of the waste management hierarchy.	Section 5.13	Appendix V Appendix W
Relevant Policies and Guidelines: • Waste Classification Guideline Part 1 (EPA) • NSW EPA Sampling Design Guidelines (EPA).	Section 5.10.2 Section 5.13	Appendix V Appendix W
Construction Hours		
Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours.	Section 3.16	Appendix K
Ecologically Sustainable Development (ESD)		
Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development	Section 3.11 Section 5.12	Appendix X
Include a framework for how the future development will be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy.	Section 3.11 Section 5.12	Appendix X
Include preliminary consideration of building performance and mitigation of climate change.	Section 3.11 Section 5.12	Appendix X
Include an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level.	Section 3.11 Section 5.12	Appendix X
Provide a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change, specifically: • hotter days and more frequent heatwave events • extended drought periods • more extreme rainfall events • gustier wind conditions • how these will inform landscape design, material selection and social equity aspects (respite/shelter areas).	Section 3.11 Section 5.12	Appendix X
Relevant Policies and Guidelines: • NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections.	Section 3.11 Section 5.12	Appendix X

Requirement	Location in Environmental Assessment	
Plans and Documents	**Report**	**Technical Study**
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents.	-	Appendix A
In addition, the EIS must include the following:	-	-
A Section 10.7(2) & (5) Planning Certificates (previously Section 149(2) & (5) Planning Certificate)	-	Appendix D
Architectural drawings showing key dimensions, RLs, scale bar and north point, including: • plans, sections and elevation of the proposal at no less than 1:200 showing indicative furniture layouts and program • illustrated materials schedule including physical or digital samples board with correct proportional representation of materials, nominated colours and finishes • details of proposed signage, including size, location and finishes • detailed annotated wall sections at 1:20 scale that demonstrate typical cladding, window and floor details, including materials and general construction quality • site plans and operations statement demonstrating the after-hours and community use strategy	-	Appendix A
Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries	-	Appendix E
Site Analysis Plan including • site and context plans that demonstrate principles for future development and expansion, built form character and open space network • active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links • 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	-	Appendix A Appendix B
Sediment and Erosion Control Plan	-	Appendix T
Shadow Diagrams	-	Appendix A Appendix B
View analysis, photomontages and architectural renders, including from those from public vantage points	-	Appendix A Appendix B Appendix EE
Landscape architectural drawings showing key dimensions, RLs, scale bar and north point, including: • integrated landscape plans at appropriate scale, with detail of new and retained planting, shade structures, materials and finishes proposed including articulation of playground spaces • plan identifying significant trees, trees to be removed and trees to be retained or transplanted	-	Appendix I Appendix J
Design report to demonstrate how design quality will be achieved in accordance with the above Key Issues including: • architectural design statement • diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal • detailed site and context analysis • 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 • visual impact assessment identifying potential impacts on the surrounding built environment and adjoining heritage items and heritage conservation area • summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice • summary report of consultation with the community and response to any feedback provided	-	Appendix B
Geotechnical and Structural Report	-	Appendix T Appendix Y

Requirement	Location in Environmental Assessment	
Accessibility Report	-	Appendix AA
Arborist Report	-	Appendix CC
Acid Sulphate Soils Management Plan (if required)	-	-
Schedule of materials and finishes	-	Appendix A Appendix B
Consultation		
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with: • City of Sydney Council • Government Architect NSW (through the NSW SDRP process) • Transport for NSW and • Roads and Maritime Services. Consultation with TfNSW, GA and RMS should commence as soon as practicable to agree the scope of investigation.	Section 4.0	Appendix DD
The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	Section 4.0	Appendix DD

2.0 Site Analysis

2.1 Site Location and Context

Darlington Public School is located on the corner of Golden Grove Street and Abercrombie Street, Darlington within the City of Sydney LGA. The site is set within an vibrant residential and education area and located to the south-east of City Road, a four-lane high street and arterial road/transport corridor between the CBD and the south of Sydney, and to the north of the eastern and western lines rail corridor.

The school is adjacent to the University of Sydney Darlington Campus and within walking distance to Redfern and Macdonaldtown train stations. The site's locational context is shown at **Figure 6**.

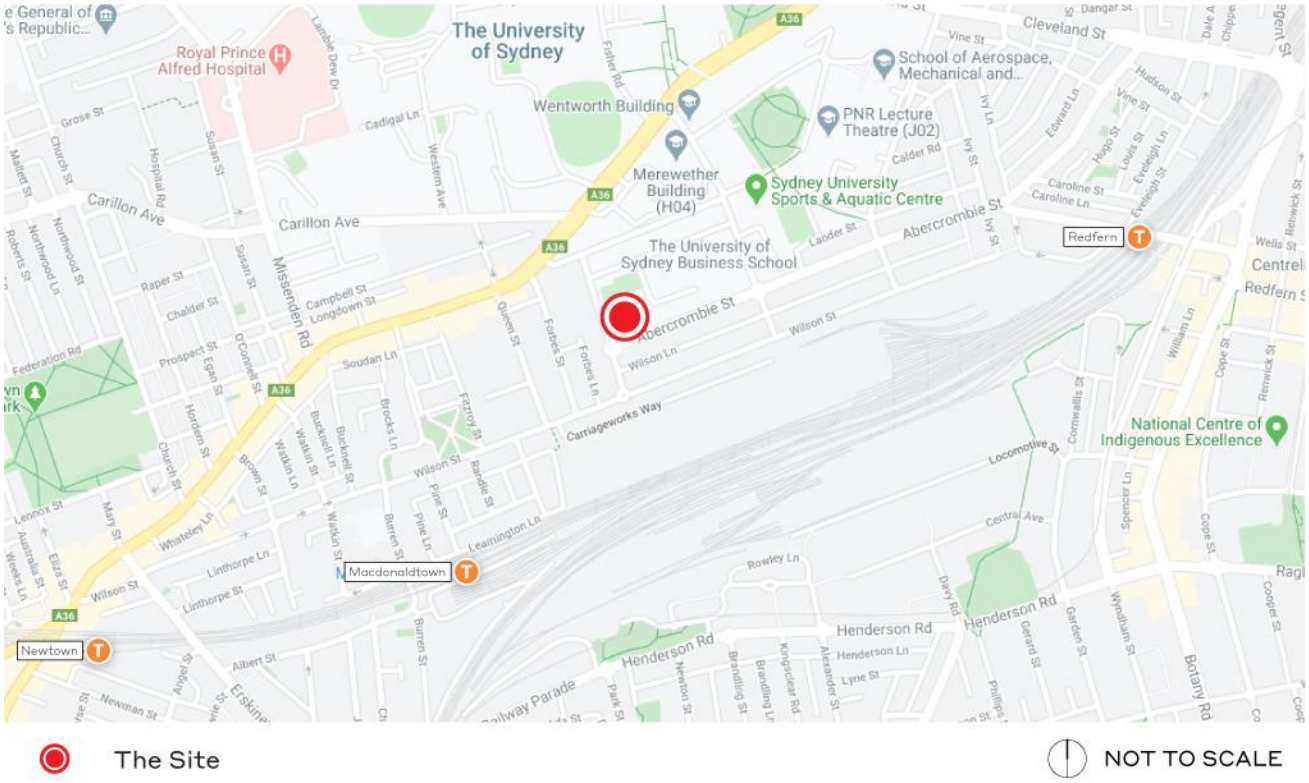

Figure 6 **Site Locational Context**

Source: *Ethos Urban*

2.2 Site Description

The site is owned by NSW Department of Education and is legally described as Lot 100 in DP 623500 and Lot 592 in DP 7523049. The site's area is 7,253m^2. It is roughly rectangular in shape. A survey plan is located at **Appendix E**. An aerial photo of the site is shown at **Figure 7**.

The site has two primary street frontages, one to Abercrombie Street to the south and one to Golden Grove Street to the west. To the north, the site abuts the former IXL factory garage, an item of local heritage significance which is occupied by the University of Sydney, and service parking along Darlington Lane. The University of Sydney School of Business abuts the site along the majority of the eastern boundary. Student housing associated with the University of Sydney fronts Abercrombie Street to the east.

Figure 7 **Aerial Photograph of Site (Red)**

Source: *Ethos Urban*

2.2.1 Existing Development

The existing site comprises a series of 1- and 2-storey brick buildings arranged roughly in a U-shape, fronting Golden Grove Street and Abercrombie Street with distinctive sawtooth roofs (see **Figure 8**). The buildings were constructed in the 1970s and provide for a capacity of up to 230 students (currently 183 enrolments). The buildings are staggered along the street frontages, with free-standing brick walls continuing the street frontage definition along both primary frontages. The two-storey buildings are generally concentrated along the Abercrombie Street frontage and corner with Golden Grove Street. The northern portion of the site is predominantly hard paved play areas including a bitumen sports court and asphalt play areas. Photographs of the existing buildings on the site are shown in **Figure 9** to **Figure 12**.

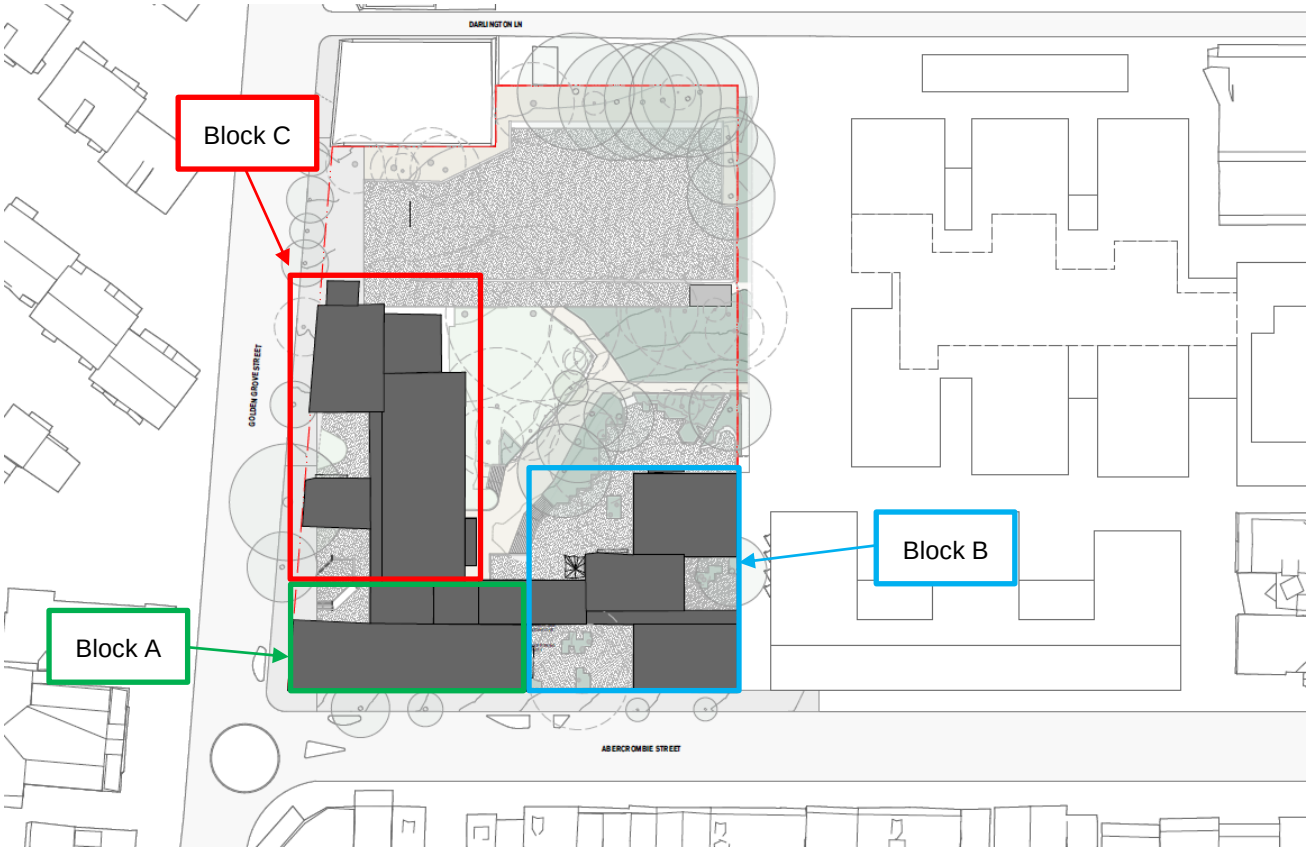

Figure 8 **Existing Site Plan**

Source: *FJMT*

Figure 9 **Photo of Existing School (facing north-east from corner of Abercrombie/Golden Grove Streets)**

Figure 10 **Photo of Existing School (facing east from Golden Grove Street)**

Figure 11 **Photo of Existing School (facing north from Abercrombie Street)**

Figure 12 **Photo of Existing School Playground (facing north from Abercrombie Street)**

2.2.2 Topography

The site has a notable slope from the north to south. The highest point of the site is the north boundary at approximately RL37, sloping down to RL33.8 at the corner of Abercrombie Street and Golden Grove Street and down to approximately RL30 at the south-eastern corner of the site. Refer to the Survey Plan provided at **Appendix E** for detail.

2.2.3 Vegetation

There are 46 trees identified within the SSDA site extent, as per the Arboricultural Assessment Report provided at **Appendix CC**. The site contains planted native and exotic vegetation, including planted native vegetation that conforms to PCT *1281 Turpentine - Grey Ironbark open forest on shale in the lower Blue Mountains, Sydney Basin Bioregion*. Refer to the Biodiversity Development Assessment Report provided at **Appendix U** and **Section 5.9** for further detail.

2.2.4 Built Heritage

The site is not listed as an item of heritage significance under any Environmental Planning Instruments. However, the following items of local heritage significance are located in proximity to the site:

- Former Jones IXL factory garage including interiors, 2-10 Golden Grove Street, Darlignton

- St Michael's Church group including buildings and their interiors and grounds, 2-10 Golden Grove Street, Darlington
- Terrace group including interiors, 19-23 Golden Grove Street, Newtown
- Terrace group 'University Terrace' including interiors, 124-131 Darlington Road, Darlington.

There are also several heritage conservation areas in the vicinity of the site:

- C5 University of Sydney Conservation Area (state significance)
- C18 Golden Grove Conservation Area (local significance)
- C45 Union Street West Conservation Area (local significance)
- C47 King Street Heritage Conservation Area (local significance).

For further detail refer to the Heritage Impact Statement prepared by GML and provided at **Appendix M**.

2.2.5 Aboriginal Heritage

The site generally has low potential for Aboriginal archaeological deposits due to high levels of historical disturbance over the past 130 years. The school has a strong social connection to the Aboriginal community and has a collection of Aboriginal artworks and artefacts. Refer to the Aboriginal Cultural Assessment Report prepared by GML at **Appendix N** for further detail.

2.2.6 Access and Parking

The school is accessed by pedestrians at two locations, one from Abercrombie Street and one from Golden Grove Street.

There is no formal on-site parking within the grounds of the school. A total of five on-street pick-up/set-down spaces are provided as signposted 15-minute parking between 8:30-9:30am and 2:30-4:30pm on school days, comprising three spaces on Golden Grove Street and two spaces on Abercrombie Street. An on-street school bus bay is also provided along the Golden Grove Street frontage between 8:00-9:00am and 2:00-4:00pm during school days.

Service vehicle access is provided to the school grounds from Golden Grove Street to the north of the existing school buildings.

The school is located approximately 200m walking distance from the north and south-bound City Road bus stops, which is serviced by the 352, 370, 422, 423, 426, 428 and M30 routes, as well as the L23, L28 and late-night services. The school is also located near Redfern and Macdonaldtown rail stations (980m and 800m, respectively). Access is provided to these stations via footpaths and a shared cycleway through local streets.

The school has a high existing level of active and public transport use, with approximately 70% of students cycling or riding scooters to school.

2.2.7 Soil and Geotechnical Conditions

Douglas Partners have undertaken investigations into the site's contamination and geotechnical conditions, including preparation of a Preliminary Site Investigation, Detailed Site Investigation, Remediation Action Plan and Geotechnical Investigation. The following existing soil and geotechnical conditions were reported (refer to **Appendix P**-**R** and **Appendix Y** for further detail):

- Fill in the central western portion of the site contains concentrations of total recoverable hydrocarbons and naphthalene that exceed the health screening levels;
- Fill across the site contains lead, total recoverable hydrocarbons and polycyclic aromatic hydrocarbons exceeding both adopted health investigation levels and ecological investigation levels; and
- Subsurface conditions generally comprise variable filling and topsoil to depths of 0.1m – 1.5m, overlying silty clay and clay of very stiff to hard consistency. Bedrock comprising extremely weathered shale and sandstone exists within the range of 0.9m to 2.2m.

Contamination and Remediation are discussed at **Section 5.13**.

2.3 Flooding

Based on the Blackwattle Bay Catchment Floodplain Risk Management Plan by WBA Water (dated September 2015), most of the site is not subject to inundation during the 100 Average Recurrence Interval (ARI) event or Probably Maximum Flood (PMF), with the exception of a very small area near the main school entrance off Golden Grove Street during the PMF, shown in **Figure 13** and **Figure 14**.

Figure 13 **100 Year ARI Flood Map**

Source: *WBA Water*

Figure 14 **PMF Flood Map**

Source: *WBA Water*

2.4 Surrounding Development

The site is surrounded by the following development (refer to **Figure 15** for images):

- **To the north**: The site adjoins the two-storey former IXL factory garage (local heritage item I2244) and University of Sydney service vehicle parking bays along Darlington Lane. Opposite Darlington Lane is University of Sydney owned residential housing including a five-storey apartment building and two-storey terrace housing. The University owned terrace housing is currently subject to an SSDA under assessment by DPIE (SSD-7539) which seeks to construct 3-storey additions to the rear of the terraces and convert Darlington Lane into one-way shared zone with a zebra crossing at the intersection with Golden Grove Street.
- **To the south**: Opposite Abercrombie Street is a row of two-storey terrace housing located within the Golden Grove heritage conservation area. Further to the south, beyond Wilson Street, is a major rail corridor and the Carriageworks creative space.
- **To the east**: Adjoining the site along the eastern boundary is the recently constructed University of Sydney Business School, and student accommodation. Both of these buildings are approximately 3-4-storeys in height.
- **To the west**: Opposite Golden Grove/Abercrombie Street roundabout is St Michael's Church, an item of local heritage significance (item I919). Residential apartments ranging in height from 2-4-storeys are located to the north of the church. Further west is City Road/King Street, the main street of Newtown and a major transport corridor to the south of Sydney.

Figure 15 Photos of Surrounding Development (left to right, top to bottom): Former Jones IXL Factory Garage, Row Houses in Golden Grove Heritage Conservation Area, St Michael's Cathedral, Darlington Road University Housing, Sydney University Business School, Residential Apartments Across Golden Grove Street

3.0 Description of the Development

This chapter of the report provides a detailed description of the proposed development. Architectural drawings prepared by FJMT are included at **Appendix A**. This application seeks approval for the redevelopment and expansion of Darlington Public School to accommodate a maximum of 437 primary school students (an increase of 207 students) and an associated preschool for up to 60 children. Photomontages of the proposed development are shown at **Figure 16**, **Figure 17** and **Figure 18**. Specifically, the consent is sought for the following:

- **Site preparation, demolition and excavation:**
  - Site remediation
  - Demolition
  - Tree removal
  - Minor excavation works to facilitate the new building
  - Installation of civil, hydraulic and electrical services
- **New building:**
  - Construction of a new part 2, part 3-storey building comprising 19 school home bases and pre-school facilities
- **Land use:**
  - Use of the new building for the purpose of a school
  - Use for the purpose of a centre-based child care facility (pre-school)
- **Landscaping:**
  - New landscaping works including pathways, play areas, assembly area and COLA
  - Public domain improvements along Golden Grove Street and Abercrombie Street
- **Other works:**
  - Lot consolidation
  - Installation of fences and gates
  - Modification to the existing on-street pick-up/drop-off zones
  - Removal and reconfiguration of existing driveways
  - Installation of signage including signage zones and a digital display board

Figure 16 Photomontage of proposed development viewed from Abercrombie/Golden Grove Street

Source: FJMT

Figure 17 Photomontage of proposed development viewed from the north on Golden Grove Street

Source: FJMT

Figure 18 Photomontage of proposed development viewed from the east on Abercrombie Street

Source: FJMT

3.1 Development/Urban Design Principles

A set of development and urban design principles have been prepared by FJMT to guide development at the site. The principles have considered the Design Quality Principles of the Education SEPP and the requirements of the Department of Education's EFSG. The planning and design principles adopted for the proposed development of the site are as follows:

- **The Child Comes First**: A diverse, collaborative learning environment incorporating the spatial implications of specific needs
- **Indigenous Heritage and Culture**: A school that celebrates and educates about its Indigenous heritage and culture
- **Identity and Inclusion**: Creation of a strong identity and address for Darlington Public School
- **Campus Heart**: Clear campus centre (a central piazza)
- **Community Engagement**: Connect the campus and the community
- **Orientation and Wayfinding**: Collective and connected campus
- **Safety and Security**: Pedestrian priority
- **Heritage**: Sensitive and appropriate design outcomes
- **Transparency and Showcase**: Engaging, welcoming and vibrant
- **A sustainable, protective and contemporary environment**: A nurturing and safe campus
- **Amenity and Wellbeing**: A welcoming, amiable, healthy campus
- **Flexibility and Multi-Purpose**: Embed potential for reconfigurability, multi-purpose use over time
- **Buildability and Economy**: Sensible and considered development

3.2 Numerical Overview

The key numeric development information is summarised in **Table 2**.

Table 2 Key development information

Component	Proposal
Site area	7,255sqm
GFA	5,650sqm
FSR	0.78:1
Maximum height	17.54m
Car spaces	0
Student capacity (excluding child care)	437 (net increase of 207) (415 expected enrolments in 2036)
Number of staff	29 (net increase of 12)
Number of child care places	60
Core hours of operation (school)	9:00am – 3:00pm
Core hours of operation (childcare centre)	9:00am – 3:00pm (children) 8:30am – 3:30pm (staff)
Out of School Care Hours	8:00am – 9:00am and 3:00pm – 5:00pm

3.3 Site Remediation, Demolition and Earthworks

As described in **Section 2.2.7**, contamination beyond the health screening levels has been detected in the central western portion of the site, and beyond the adopted health investigation levels and ecological investigation levels throughout the remainder of the site. The site will be remediated in accordance with the Remediation Action Plan provided at **Appendix R**. The proposed remediation is defined under SEPP 55 as "Category 2" remediation and does therefore not require development consent.

Demolition of the northern part of Block C is being undertaken separately under Part 5 of the EP&A Act (see **Section 1.2.1**). This SSDA seeks consent for demolition of the remaining buildings on site (including Block A, B and part of Block C), as shown in **Figure 19**. Limited excavation and site-grading works are also proposed to accommodate the structure and footings of the new buildings (see Civil Design Report provided at **Appendix T**).

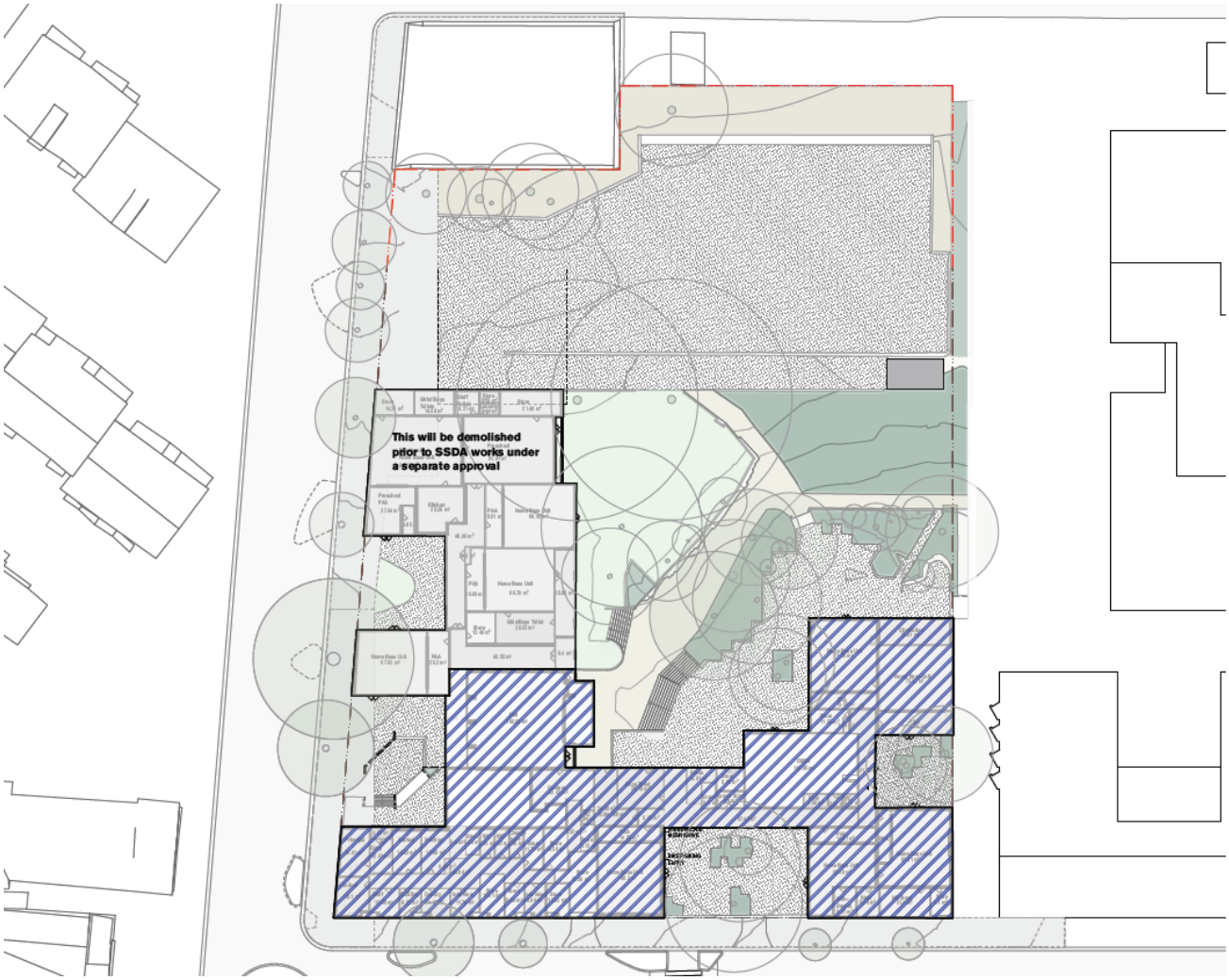

Figure 19 **Proposed Demolition Plan**

Source: *FJMT*

3.4 Tree Removal

27 trees are proposed to be removed in order to accommodate the development. Approximately 35 new trees will be planted.

Further discussion of tree removal and ecological impacts is provided at **Section 5.9** and in the Arboricultural Development Impact Assessment Report prepared by Moore Trees (**Appendix CC**) and the Biodiversity Development Assessment Report prepared by Eco Logical Australia (**Appendix U**).

3.5 New School Building

A new part 2, part 3-storey school building is proposed, which will accommodate 19 home bases and a 60-child preschool. The design of the new school building is described in the following sections of this report and is detailed in the Architectural Design Report prepared by FJMT (**Appendix B**).

3.5.1 Built Form

Building Height

The proposed new building has a distinct sawtooth roof which references the design of the existing school and separates the building into several volumes. The height of the new building responds to the surrounding buildings, which are generally 2 to 3-storeys in height. The 2-storey volumes front the northern and southern boundaries along Golden Grove Street, while the three-storey volumes are set centrally along the Golden Grove Street frontage and setback from the lower levels. The Golden Grove/Abercrombie Street corner is marked by a sawtooth form that extends to RL 49.470 (17.54m above ground) to accommodate the hall.

The maximum height of the building is approximately 17.54m above ground level, which occurs at the south-eastern corner of the new hall. A Clause 4.6 Variation Request prepared by Ethos Urban is provided at **Appendix F** relating to the exceedance of the building height development standard under the Sydney LEP. It is noted that clause 42 of the Education SEPP permits SSD for the purposes of a school to contravene development standards. Nonetheless, a Clause 4.6 Variation Request has been prepared to demonstrate the merit of the proposed variation.

Figure 20 Proposed new building Western Elevation (top) and Eastern Elevation (bottom)

Source: FJMT

Bulk and Scale

The new building is located along the western edge of the site, following the roads and referencing the existing walls that currently encircle the school. The streetscape rhythm and scale has been carefully considered through implementing a sawtooth roof that helps define the Abercrombie/Golden Grove Street corner and references surrounding buildings. Two large façade openings are proposed at Ground Level along Golden Grove Street, which in combination with an absence of built form along the eastern portion of the Abercrombie Street frontage allows for clear access and softening of the building's street presence. The proposed development has an FSR of 0.78:1, which complies with the maximum permissible FSR of 1.25:1.

Within the site, the new building proposes a curvilinear form to contrast the strong, linear street presence and provides for a comforting and more natural design for the playground and school grounds/pathways.

Building Setbacks

The new building forms an L-shape along Golden Grove Street and Abercrombie Street by providing a near-zero setback to these frontages at Ground Level, to define the street wall and provide the school with a strong address. The upper levels (Levels 1 and 2) are setback from the Golden Grove Street frontage and are located centrally within the built form to reduce their visual impact and dominance of the streetscape. The hall fronts Abercrombie Street with a zero-setback to define the street and provide a strong presence for the communal hall within the community.

Internally, the new building is setback significantly from the eastern site boundary, which allows for a significant uninterrupted area of landscaping and play area.

External Materials and Finishes

Brickwork is proposed as a central element of the new building design, to reference the existing materiality of the school and also the surrounding brickwork facades including that of the heritage Jones IXL Garage building to the north. Outward facing facades will be constructed of brick, while internally facing facades will utilise a softer material palette including a permeable metal mesh screen where appropriate. Proposed materials are shown in **Figure 21** and **Figure 22**. Refer to the Architectural Design Report at **Appendix B** for further detail.

Figure 21 **Proposed Materiality for the Western Elevation (facing to the street)**

Source: *FJMT*

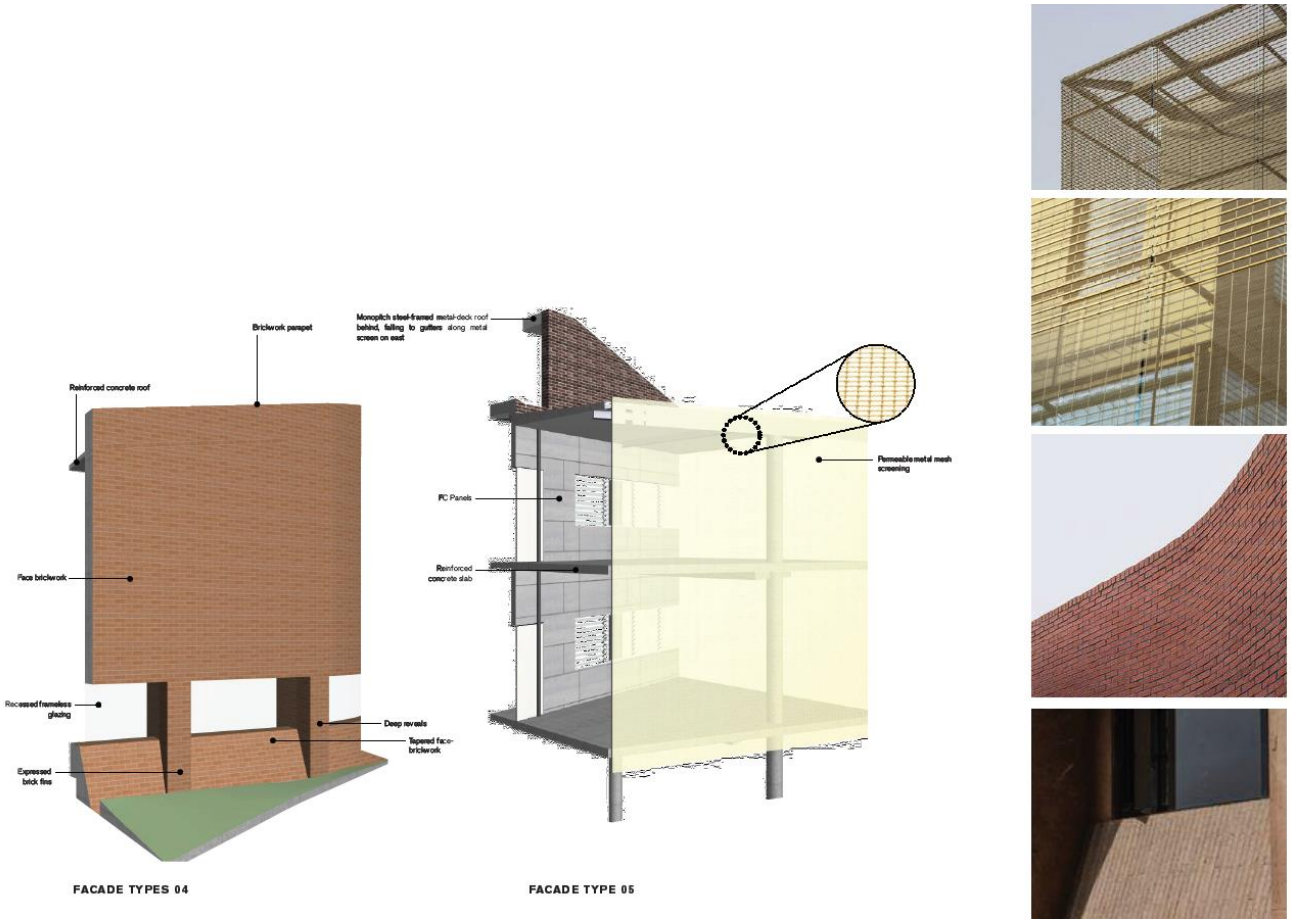

Figure 22 Proposed Materiality for the West Elevation (facing into the school)

Source: FJMT

Land Use & Floor Space by Level

A section drawing shown the proposed levels is shown at **Figure 25**. Refer to **Figure 23** and **Figure 24** for proposed uses and layouts of Upper Ground Level and Level 1 of the school.

Home base units are the core teaching and learning environments for a primary school. They are designed to be adaptable learning environments that can support a range of teaching strategies from direct explicit instruction to facilitation of inquiry and authentic project and problem-based learning. They are configured to support a variety of seating plans from individual to large groups. A total of 19 home bases are proposed across Level 1 and Level 2 of the new school building, which form the core primary school teaching areas of the new building. It is expected that the school will provide for an average of 22 students per home base, with up to 23 students per home base when operating at maximum capacity. Two COLAs are proposed on each of the Level 1 and Level 2 external circulation areas, providing safe and convenient access from the home bases.

A staff area is proposed at the south-eastern corner of Level 1, comprising a staff room, annexe, amenities/changes rooms and some mechanical plant.

The Upper Ground Level supports the specialised and ancillary uses of the school other than teaching. The uses are separated by openings in the ground level façade that define different 'wings' within the floor plan and provide additional covered outdoor waiting, learning and assembly areas beneath the upper levels. The uses of the Upper Ground Level are proposed as follows:

- **Southern wing**: A 204sqm communal hall (and associated storage, amenities circulation), 38sqm special programs room, canteen and sports store. The hall and canteen servery front the internally covered learning area (COLA/assembly area).
- **Middle wing**: The middle wing comprises the school admin spaces and offices (including principal, deputy and clerical offices), as well as the library. The library space is separated by a north-south oriented external

circulation area and is set centrally in the school grounds, with a curvilinear form that nestles into the landscape design of the playground and outdoor learning areas. The library includes a 24sqm office/workroom, resource centre and a special programs area.

- **Northern wing**: The northern wing of the Upper Ground Level is occupied by the centre-based childcare facility/preschool (see **Section 3.6** for further detail), mechanical services and waste storage.

Lower Ground Level comprises a 110sqm room for bicycle and scooter storage, and bulk/garden storage area, located beneath the Upper Ground Level amenities and storage area.

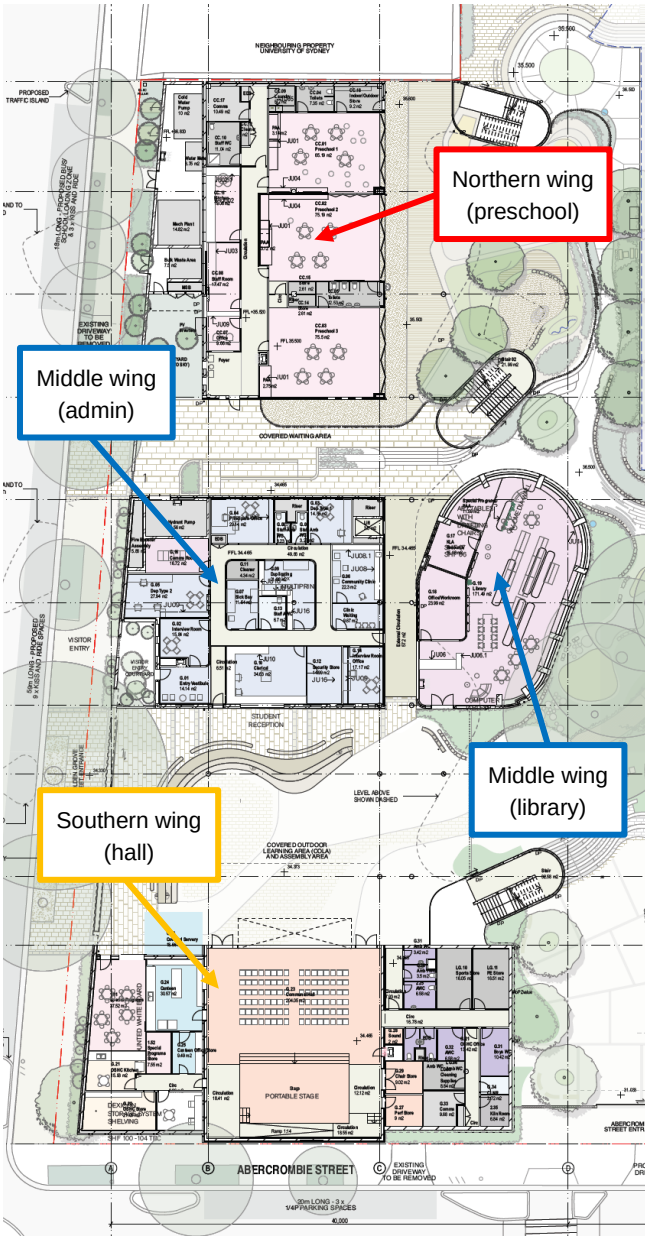

Figure 23 **Upper Ground Level Proposed Uses**

Source: *FJMT*

Figure 24 **Level 1 Proposed Uses**

Source: *FJMT*

Figure 25 Proposed Section of New School Building (Golden Grove Street)

Source: FJMT

3.6 Preschool

The northern wing of the Upper Ground Level is proposed to be used as a Centre Based Childcare (Preschool) with capacity for up to 60 children aged between 3-5 years old. The existing preschool at the site has a license/capacity for up to 60 children, so no increase in capacity is proposed. The preschool comprises three indoor playrooms with a minimum of 65sqm unencumbered play area per room, representing a minimum of 3.26sqm of unencumbered indoor play area per child. A foyer, staff room, kitchen, staff and child amenities, laundry and storage areas are provided to support the functioning of the preschool. A total of 470sqm of unencumbered outdoor play area is provided, resulting in 7.83sqm per child. The design of the preschool has been undertaken in accordance with the Education and Care Services National Regulations and the NSW Child Care Planning Guidelines, as detailed at **Appendix H**. The proposed general arrangement of the preschool is shown at **Figure 26**.

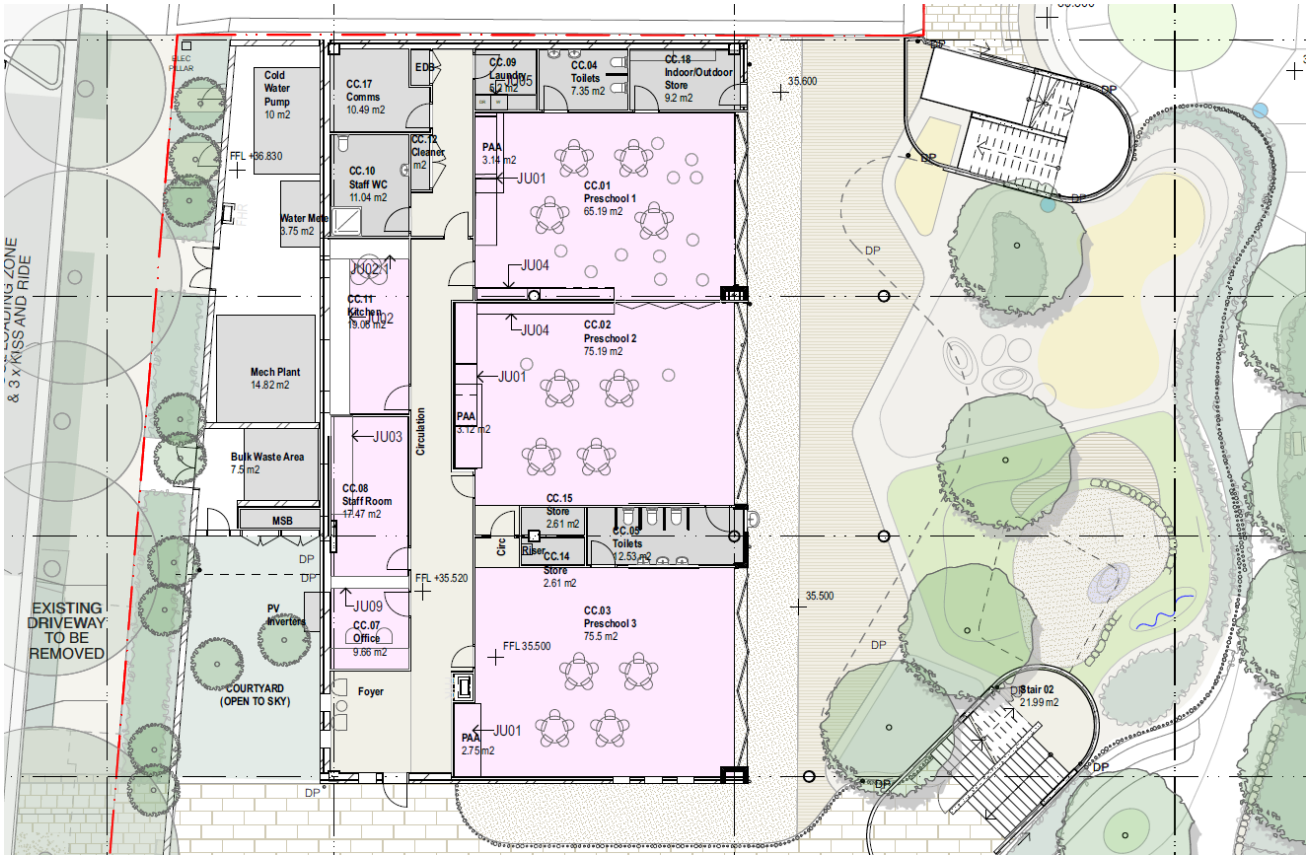

Figure 26 Proposed Layout of Pre-School (Upper Ground Level, Northern Wing)

Source: FJMT

3.7 Landscaping and Public Domain

A Landscape Report has been prepared by FJMT and is provided at **Appendix I**. The proposed landscape design seeks to create opportunities for learning spaces, outdoor rooms and areas of active, imaginative and quiet play through the use of connected paths and changing landforms. As shown in **Figure 27**, there are nine character zones proposed to cater to these types of spaces, including a dedicated outdoor play area for the preschool. The sports court will be accessible to the school, however is being delivered separately to this SSDA and is therefore not included in the Landscape Study scope of works.

To accommodate the development of the new school buildings, 27 trees are proposed to be removed. The landscape design for the school includes the planting of 35 new trees, which will more than offset the loss of trees required to upgrade and expand the capacity of the school.

The landscape design for the school includes curvilinear paths that respond to the sloping topography of the site and are reflected in the curved built form of the internally facing building facades. The Landscape Report also provides a safety and security strategy that implements appropriately located, sized and visually permeable/impermeable fencing.

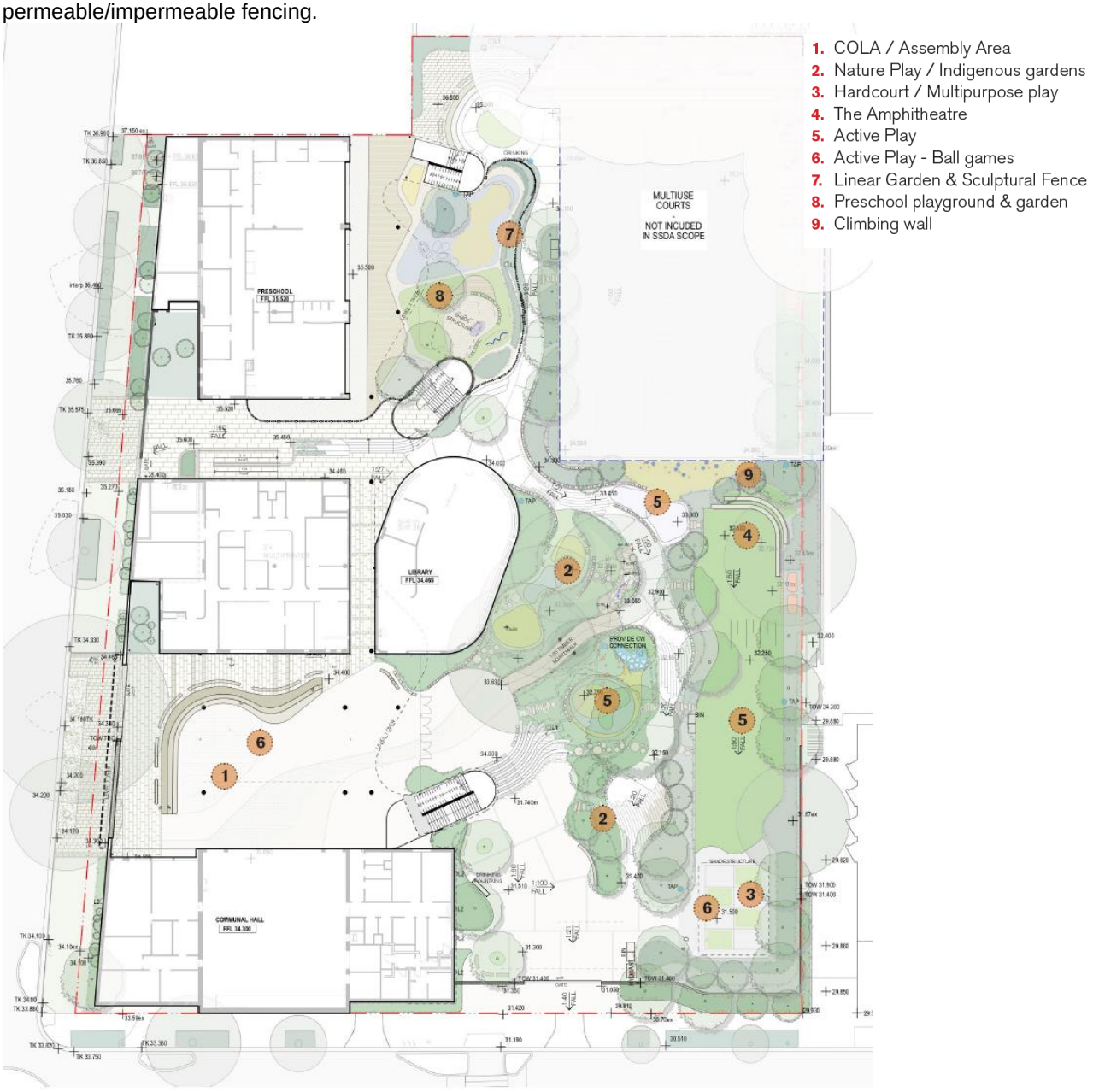

Figure 27 **Proposed Landscape Character Zones**

Source: *FJMT*

3.8 Pedestrian Access

Pedestrian points of access are shown in **Figure 28**. The main entrance is off Golden Grove Street adjacent to the assembly/covered outdoor learning area (COLA). A second school entrance is proposed from Abercrombie Street. The preschool has a dedicated entrance in the northern portion of the site off Golden Grove Street. Security fencing is proposed along the site boundaries as described in the Landscape Plan at **Appendix J**.

Figure 28 Proposed Pedestrian Entrances to the New School Building

Source: FJMT

3.9 Vehicular Access and Parking

Pick up and Drop off

Consistent with the existing arrangement, no formal on-site parking is proposed. As described in **Section 2.2.6**, a large proportion of the school staff and students utilise active transport to travel to and from the school. As such, it is proposed to provide a limited number of on-street drop off and pick up spaces during peak morning and afternoon times. These areas are shown in **Figure 29** and are described in detail at **Section 5.4** and the Traffic and Parking Impact Assessment prepared by TTPA (**Appendix L**). The proposed pick up and drop off arrangements are:

- Golden Grove Street
  - 9 x Kiss and Ride only (parents remain in car) spaces between 8.30am and 9.30am and 2.30pm and 4.30pm on school days
  - 3 x 15 minutes parking between 8.30am and 9.30am and 2.30pm and 4.30pm on school days
  - 1 x Loading Bay between 9.30am and 2.30pm on school days to serve the needs of service vehicles and/or excursion buses
- Abercrombie Street
  - 2 x 15 minutes parking between 8.30am and 9.30am and 2.30pm and 4.30pm on school days
  - 1 accessible x 15 minutes parking between 8.30am and 9.30am and 2.30pm and 4.30pm on school days

The proposed parking arrangement described above will necessitate changes to signage and the existing traffic island/kerb on Golden Grove Street. Refer to **Appendix L** for further detail.

Figure 29 Proposed Pick-up and Drop-off Arrangements

Source: FJMT

Service Vehicles

As described above, between the morning and afternoon pick up/drop off hours, the 3x preschool drop off/pick up spaces will be designated as a Loading Zone. All deliveries and service access will be from this loading zone at the northern end of Golden Grove Street, including waste pickup, which will be from the kerb. The main plant area and bulk waste storage areas are located adjacent to the service vehicle access point behind a perforated brick screen fronting Golden Grove Street.

Maintenance and emergency vehicle access is proposed via Abercrombie Street to the east of the new school building. This location provides convenient access to the Lower Ground Level storage area.

3.10 Active Transport

Due to the high existing number of students and staff that travel to school using a bicycle or scooter (over 70%), a dedicated bicycle/scooter storage room is provided on Lower Ground Level at the south-eastern corner of the new school building. A total of 67 bicycle/scooter parking spaces are provided. The storage area is accessible from the Abercrombie Street entrance and will allow students to store their scooters/bicycles at school throughout the day, instead of having to be kept by their parents and brought back at the end of the day. Separate staff end of trip facilities are proposed in the staff area at Level 1.

3.11 Environmentally Sustainable Development

The proposed development will be sustainable and has been designed to the DoE equivalency of a 4 Star Green Star rating. A three-stage approach to ESD has been incorporated into the design of the building that seeks to:

- Reduce energy demand through passive design measures;
- Provide HVAC services as efficiently as possible; and
- Maximise on-site generation through Solar PV.

The above will be coupled with management systems that reduce ongoing usage of utilities. As shown in **Figure 30**, the innovative sawtooth roof design of the new building allows for natural ventilation, sun access, installation of PV

cells and maintenance access, allowing for the incorporation of a range of ESD initiative. Refer to the ESD Report prepared by Integral at **Appendix X** for further detail.

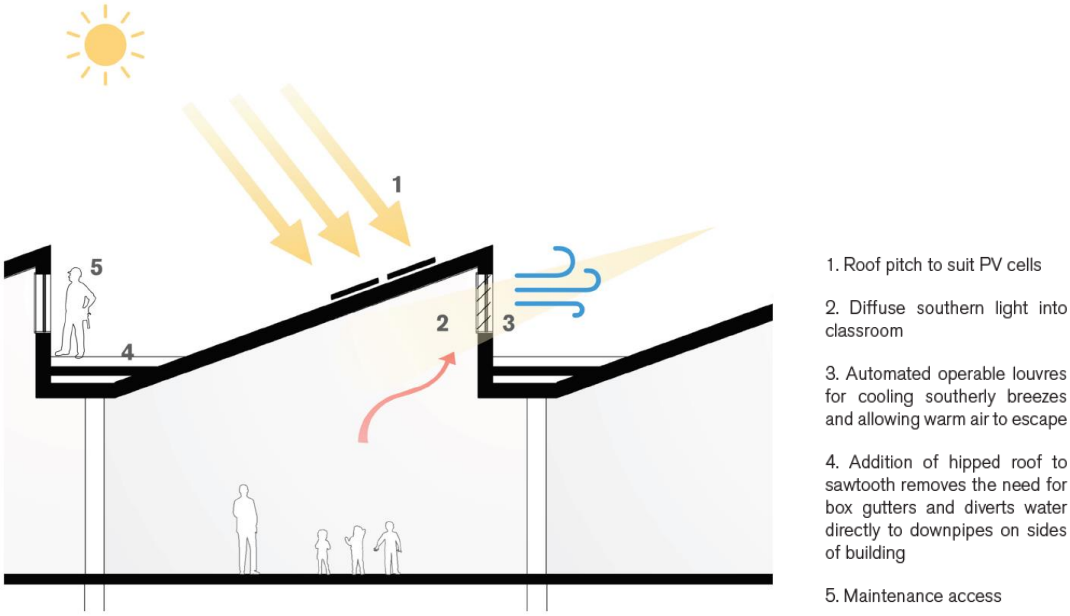

Figure 30 Sustainability and amenity benefits of sawtooth roof design

Source: FJMT

3.12 Infrastructure and Services

A Hydraulic Infrastructure Management Plan has been prepared by Warren Smith and Partners and is provided at **Appendix FF**. An Electrical and Telecommunications Management Plan prepared by Stantec is provided at **Appendix HH**. The plans find the following in relation to the provision of services for the new development.

Electrical

The site will be fed from a new 400V low voltage power supply of 400A from the Ausgrid substation on Darlington Lane. The power supply will be fed to a pillar on the north western corner of the site. An application has been sent and an offer received from Ausgrid for the connection. The power supply works will be carried out by a Level 1 ASP contractor within the Stage 1 works of the construction program.

During Stage 1 works, the existing power supply to the school will be retained until Stage 2 construction commences (staging is described in **Section 3.16**). Refer to **Appendix HH** for detail.

Communications

Communications will be fed from the existing NBN and other fibre infrastructure installed along Golden Grove Street. A new main communications room is proposed within the Library and Administration building where a new lead-in cable will be supplied.

The existing incoming communications will also remain in place to service the existing school areas until Stage 2 construction commences (staging is described in **Section 3.16**), when the new communications connection will supply the whole school. Refer to **Appendix HH** for detail.

Water

It is proposed that a connection is made to the Sydney Water DN150 CICL water main in Golden Grove Street, adjacent to the proposed water meter in the northern portion of the site. A Letter of Feasibility provided by Sydney Water at **Appendix FF** confirms that the demand can be accommodated.

Non-potable cold water extending from the rainwater reuse system will be used for irrigation and not for any internal amenities uses (to minimise potential health impacts). Low flow taps, water metering, rainwater reuse and hydrant pump testing will minimise ongoing water use. Refer to the Water Cycle Management Plan and WSUD Report at **Appendix FF** for detail.

Sewer

It is proposed that a connection is made to the Sydney Water DN300 sewer main that reticulates through the site from west to east. Refer to **Appendix FF** for detail.

Stormwater

Two on-site detention (OSD) water tanks are proposed to limit post-development discharge flows to the existing stormwater system. An OSD with internal volume of 70m^3 (OSD 1) will discharge to Golden Grove Street and a second OSD with internal volume of 120m^3 (OSD 2) will discharge to Abercrombie Street. Refer to the Civil Design Report at **Appendix T** for further detail.

Gas

Use of natural gas is proposed to be eliminated from the site. Electrical options will be utilised for the heating of hot water and no natural gas services to be provided to the kitchen or canteen facilities.

3.13 Public Art

The proposed development includes the retention and repurposing of existing 'public' artworks including Year 6 art wall and totems, Jarjum rugs, Aboriginal murals, the 'burnt door' and carved sandstone blocks. See **Figure 31** for proposed locations of integration and refer to the Design Report (**Appendix B**) and the ACHAR (**Appendix N**) for further detail regarding the individual artworks.

Figure 31 Proposed Integration of Existing Indigenous Artworks

Source: FJMT

3.14 Signage

Four signage zones are proposed as indicated in the Signage Plan prepared by FJMT at **Appendix A**. Three mounted wall signs are proposed comprising individual cut lettering. One of these signs will be to identify the preschool and will be located on the façade in front of the preschool building. The remaining two will identify Darlington Public School and are located on the building façade adjacent to the main school entrance and the Abercrombie Street entrance. The school sign along Golden Grove Street will be illuminated. One digital signage board is proposed facing Abercrombie Street. The sign will display static and dynamic illuminated images and text relating only to Darlington Public School. A summary of the proposed signage is provided in **Table 3**.

Table 3 Summary of Proposed Signage

Sign	Description/Content	Dimensions (height x width)	Illumination
Preschool Sign	Individual cut letters spelling “Darlington Preschool”	0.86m x 3.02m	No
School Sign 1	Individual cut letters spelling “Darlington Public School”	0.95m x 5.36m	Yes
School Sign 2	Individual cut letters spelling “Darlington Public School”	1.13m x 2.76m	No
Digital Signage Board	Digital/LED signage board displaying illuminated dynamic and static content related to the school only.	2.835m x 1.25m	Yes

3.15 Lighting Strategy

A lighting strategy is provided at Appendix B of the Design Report (**Appendix B**). The ground level covered outdoor spaces will be illuminated by surface downlights. Wall lights at 3.5m high will illuminate the street entrance along Abercrombie Street. Pole-top area lights will illuminate the pathway along the Darlington Lane boundary of the site.

3.16 Construction

Construction Staging

As described in **Section 1.2**, works are occurring on-site separately to the SSD application and will be completed prior to the start of the SSD works.

Works associated with the SSDA will be undertaken in two stages as follows:

- **Stage 1 – Upper Site Works**: Construction of the north-western portion of the new school building. The school will continue to operate in the existing southern buildings along Abercrombie Street (Blocks A and B).
- **Stage 2 – Lower Site Works**: Decanting of students to the newly constructed north-western portion of the new school building. Construction of the remaining portion of the school in the southern portion of the site.

Construction will be undertaken in accordance with the following indicative timeframe:

- Construction commencement: Early 2021
- Stage 1 operational: April 2022
- Stage 2 and all works operational: April 2023

Realignment of the sports court and establishment of a temporary child care centre (both undertaken separately to this SSDA) will allow for ongoing operation of the school during construction. Refer to the Preliminary Construction Management Plan at **Appendix K** for further detail.

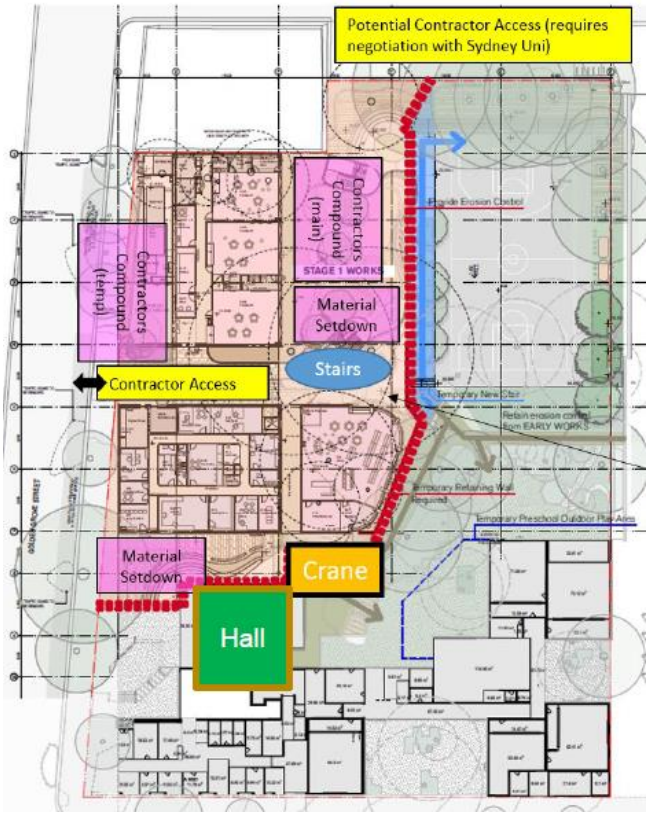

Figure 32 **Stage 1 Construction Plan**

Source: *Mace*

Figure 33 **Stage 2 Construction Plan**

Source: *Mace*

Construction Hours

Construction will be undertaken in accordance with the Preliminary Construction Management Plan provided at **Appendix K**, which proposes the following construction hours (beyond the standard construction hours specified in the NSW Interim Construction Noise Guideline):

- Monday to Friday: 7:00am – 6:00pm
- Saturday: 8:00am – 3:00pm
- Sunday and Public Holidays: No works.

Construction Jobs

The proposed development will result in the creation of 127 jobs during the construction phase.

3.17 Operation

School Operation

The school will operate as per its existing hours, which are as follows:

- Core school hours: 9am – 3pm
- OSHC hours: 8am – 9am and 3pm – 5pm
- Extra-curricular programs: 8am – 9am and 3pm – 4:15pm

Student and Staff Numbers

The proposed development will increase the school's capacity from 230 students to 437 students (207 additional students). Staff numbers will increase from 17 to 29 (12 additional staff). This excludes the preschool.

Preschool Operation

The preschool will operate as per its existing hours, which are as follows:

- Staff hours: 8:30am – 3:30pm
- Child hours: 9:00am – 3:00pm

The existing preschool has a capacity of 60 students, with approximately 24 enrolments. The new preschool will also have a capacity of 60 students. An increase in staff will be provided to accommodate expected new enrolments. There are currently 2 staff (1 educator and 1 aide). This is expected to increase to a total of 6 staff (3 educators and 3 aides).

Joint Community Use

The school hall is currently used by the community for activities including dance classes. These activities generally take place during the hours of 3:00pm – 8:00pm, Wednesday – Friday, and from 9am – 5pm on Saturdays.

The new school has been designed to accommodate existing and future community uses within the hall and outdoor COLA/assembly area. As shown in the design report at **Appendix B**, the main entrance from Golden Grove Street will be utilised for community access and the remainder of the school grounds will closed off using fencing. The hours of operation for the community use will vary depending on demand and future programming, but are anticipated to take place between approximately 3:00pm – 8:00pm on weekdays and 6:00am – 10:00pm on weekends and non-school days.

3.18 Lot Consolidation

The site is currently comprised of two separate allotments. These lots will be consolidated into a single allotment as part of the proposed development. A Lot Consolidation Plan is provided at **Appendix II**.

3.19 Contributions

The relevant contributions plan applying to the site is the City of Sydney Development Contributions Plan 2015. Under Section 1.3 of the plan, development for the purposes of a government school is excluded from paying a contribution as generally required by the plan. Since this SSDA seeks consent for the redevelopment of a government school, contributions are not required to be paid.

DoE is a government agency which relies on government grants to provide new facilities for the local community. The levying of a development contribution would divert a portion of these public funds, which have been specifically provided to fund a school redevelopment, to local services without any direct nexus to the impact on those services.

The inherent public character of the proposed development contrasts with a strictly commercial development where a full levy might be considered reasonable. The nature of the development means that the infrastructure which Council typically seeks to levy for will in part be provided by the school for use by students, staff and the public, including the Hall and COLA/assembly area which are available for community use as outlined above.

4.0 Consultation

In accordance with the SEARs issued for this project, consultation was undertaken with relevant public authorities, the community and Council.

A Consultation Outcomes Report prepared by Ethos Urban is provided at **Appendix DD** and provides detail of the consultation undertaken, feedback received, and responses made by the team. Several consultants have undertaken additional consultation with relevant parties during the preparation of their reports. A brief summary of the consultation undertaken to-date with Council, the community and relevant agencies is provided below.

Community Consultation

A proactive and strategic approach to the communications and stakeholder engagement was undertaken. A variety of communications were used to promote the consultation. These included:

- Letterbox drop to local residents;
- Doorknocking;
- Four Community Information Sessions;
- 17 meetings with Government agencies and special interest groups;
- Three Newspaper advertisements;
- 35 Project Reference Group meetings;
- 1800 number and email address; and
- Project page website.

Most of the feedback received focussed on:

- Traffic and parking;
- Ecology – flora and fauna;
- Environmental amenity;
- Aboriginal heritage and culture;
- Contamination and geotechnical;
- Stormwater management and flooding; and
- Construction and operational impacts.

Throughout this process, DoE has worked closely with all stakeholders to ensure everyone has been provided with ample opportunity to participate prior to lodgement of the SSDA.

A summary of the issues raised during school and community consultation, and the responses to each issue, are provided in **Table 4**.

Table 4 Issues and Outcomes from School and Community Consultation

Topic	Comments	Team response
Design	Sustainability initiatives such as use of solar energy and prominent natural features	A three-stage approach to ESD is proposed which includes passive design measures, efficient HVAC services and maximising onsite generation using rooftop Solar PV.
	Play spaces for age-specific groups	The landscape proposal includes nine character zones, each with a distinct feel and purpose and including a separate childcare play area. Some of these zones will better cater to the play needs of younger students.
	Prominent of natural lights and soft spaces	The design includes passive design features to encourage natural light and ventilation, including a pitched sawtooth roof. A curvilinear form of both the built form and the landscape within

Topic	Comments	Team response
		the grounds of the school encourages soft spaces. The orientation of the playground allows for appropriate sun access.
	Incorporating indigenous culture into design	The design allows for the teaching of Aboriginal Culture both inside and outside the classroom, provides culturally considered design spaces and provides a strong integration of art and display of Aboriginal Culture. Refer to the attached Aboriginal Cultural Heritage Report for further detail.
	Need for undercover bike and scooter parking	It is acknowledged that a high proportion of students travel to school by bicycle and scooter. Undercover dedicated bicycle and scooter parking has been accommodated in the design.
	Need for performance and music spaces on site	A dedicated special programs room and store is proposed. The communal hall will be utilised as a performance space.
	Consider location of school hall in relation to equitable access	The hall is located adjacent to the covered main entrance and COLA and provides equitable access.
Overshadowing	Concern about overshadowing	The sawtooth roof assists in preventing overshadowing to residences across Golden Grove Street in the morning, during mid-winter. Refer to Design Report and EIS for further assessment of overshadowing impacts.
Privacy	Concern about privacy	The school has been designed so that the buildings form a protective wall along the two main street frontages, avoiding the need for extensive fencing, and providing a certain amount of privacy to the school grounds from the main roads. Glimpses into the school grounds are provided where palisade fencing secures the entrances. Many of the existing mature trees will be retained, providing visual amenity to residential properties opposite the school. Refer to the Design Report and EIS for a detailed assessment of visual privacy.
Construction impacts	Consider re-locating pupils during construction	Safety of students and staff is the highest priority consideration when determining re-location off-site during construction. Other factors including value for money and student travel distances have also been considered. The best outcome for the school is to conduct the redevelopment in stages, with students and staff relocated and managed on-site. Refer to the EIS, Construction Management Plan and Social Impact Assessment for further detail.
Artworks	Questions on what will happen with existing artwork on site	Where possible, all artworks, murals and objects will be retained and integrated into the new school design, including many Aboriginal artworks, the Jarjum Rugs and the Year 6 artworks and totems. Digitisation has also been provided as an option. DoE will continue to work with stakeholders to reach an agreed approach.
Transport	Require pram accessibility	Accessible access to the school and preschool is provided, including for prams.
	Concerns over traffic safety during busy periods	A new, improved and safe pickup/drop off arrangement is proposed along Golden Grove Street and Abercrombie Street. Refer to the Traffic Impact Assessment for detail.
	Request for kiss and drop zone and places for parents to wait near the school gates	Kiss and drop zones are proposed along Golden Grove and Abercrombie Street during drop off and pick up hours, with loading zones outside these hours. 15min parking is proposed in sections along Golden Grove and Abercrombie Street during drop off and pick up hours for preschool parents.

Agency and Authority Consultation

Numerous stakeholder meetings were also held with government agencies and special interest groups, outlined in **Table 5** below.

Table 5 Register of Government Agency and Special Interest Group Stakeholder Meetings

Stakeholder	Meeting Date
City of Sydney Council	17/05/19 17/03/20
Government Architect NSW	12/09/18 30/01/19 17/04/19 **Design reset** 14/08/19 06/11/19
Transport for NSW (TfNSW) and Roads and Maritime Services (RMS)	02/04/20
Special interest groups: • Local Aboriginal Land Council • Registered Aboriginal Parties (RAPs) • Aboriginal Land Rights registrar • National Centre of Aboriginal Excellence (NCIE) • Tribal Warrior	12/07/18 07/02/19 07/02/19 18/10/18 09/12/2019 19/03/2019
Office of Environment and Heritage (OEH)	30/01/19
The University of Sydney	08/05/18 04/11/19

Government Architect NSW

Meetings with GANSW have been ongoing since 2018 when the GANSW State Design Review Panel (SDRP) recommended that the initial Masterplan and Concept Designs submitted from November 2018-April 2019 should be reconsidered and resubmitted.

A revised Masterplan by FJMT was provided to the SDRP in August 2019 which was endorsed and commended by the SDRP in November 2019. The design presented to the SDRP forms the basis of this SSDA submission.

For a summary of the issues raised and responses made to the various elements of consultation, refer to the Consultation Outcomes Report prepared by Ethos Urban at **Appendix DD** as well as each of the relevant technical consultant reports.

The proposed development will be placed on public exhibition for 28 days in accordance with clause 83 of the *Environmental Planning and Assessment Regulation 2000*. During the public exhibition period Council, State agencies and the public will have an opportunity to make submissions on the project.

5.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposed DA. It addresses the matters for consideration set out in the SEARs (see **Section 1.5**). The Mitigation Measures at **Section 7.0** complement the findings of this section.

5.1 Relevant EPIs, Policies and Guidelines

The relevant strategies, environmental planning instruments, policies and guidelines as set out in the SEARs are addressed in **Table 6**.

Table 6 Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines

Instrument/Strategy	Comments
Strategic Plans and Policies	
NSW State Priorities	NSW State Priorities are twelve high-level priorities for the State, being: • Creating jobs • Delivering infrastructure • Driving public sector diversity • Improving education results • Improving government services • Improving service levels in hospitals • Keeping our environment clean • Making houses more affordable • Protecting our kids • Reducing domestic violence reoffending • Reducing youth homelessness • Tackling childhood obesity The proposal seeks to redevelop an existing public school and create additional educational capacity in central Sydney. The proposal will therefore contribute to the provision of infrastructure, as well as jobs and education, thereby contributing to strengthening the local and regional economy.
The Greater Sydney Regional Plan, A Metropolis of three cities	In accordance with the Plan, this proposal will ensure an upgraded school can be delivered to meet Sydney's growing educational needs. The proposal will take enrolment pressure off the existing school and broader School Community Group and ensure that a high-quality educational facility is provided for the future population of the school catchment. The proposal is also consistent with the other wider goals and directions contained within the Plan, including: • The creation of temporary job opportunities in manufacturing, construction and construction management, and on-going jobs in teaching and administration for the wider City of Sydney LGA; • Deliver additional educational infrastructure for the catchment that will take enrolment pressure of the existing school; • Revitalise an aged school to provide contemporary facilities to meet future educational standards, and provide increased jobs and growth; and • Deliver a sustainable, well-designed building that promotes the use of public and active transport. The redevelopment of the site will make a valued contribution to economic growth in Sydney and provide increased learning and employment opportunities.
Future Transport Strategy 2056	The Future Transport Strategy 2056 sets the 40-year vision, directions and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. This plan aims to place the customer at the centre and with feedback harness the rapid advancement of technology and innovation across the transport system to transform customer experience, improve communities and boost economic performance (TfNSW 2017). The proposal is consistent with the Strategy by delivering increased educational capacity in Inner Sydney in a highly accessible location. The proposal does not prevent the objectives of the Strategy from being achieved.

Instrument/Strategy	Comments	
State Infrastructure Strategy 2018 – 2038 Building the Momentum	The proposal is consistent with the State Infrastructure Strategy by: • Delivering school infrastructure to keep pace with student numbers • Providing modern, digitally enabled learning environments • Upgrading existing learning spaces	
Sydney's Cycling Future 2013	The overarching goal of Sydney's Cycling Future (released in 2013) is to make cycling a safe, convenient and enjoyable transport option for short trips. The document outlines how to support and make bicycle riding a feasible transport option for all customer types. DoE is supportive of students and staff using bikes as a mode of transport. The proposal seeks to support cycling to access the site for both staff and students, whether it be for the last or first mile of their journey or the entire journey. A dedicated bicycle/scooter storage room has been provided for up to 68 bicycles/scooters in a secure location.	
Sydney's Walking Future 2013	Sydney's Walking Future produced by Transport for NSW sets out a strategy to encourage people in Sydney to walk more through actions that make it a more convenient, better connected and safer mode of transport. The proposal supports walking to access the site for both students and staff. This includes introduction of new, clearly defined pedestrian entrances to the site, as well as better walking connections within the site. The school has also been designed to minimise conflict between vehicles, bicycles and pedestrians.	
Sydney's Bus Future 2013	Sydney's Bus Future (2013) outlines the NSW Government's long-term plan to deliver fast and reliable bus services within Sydney to meet current and future customer needs. The school is located close to the City Road bus stops (approximately 200m) and is serviced by regular bus services. Students, teachers and parents will therefore be able to easily access the site via bus, deterring the need to drive.	
Crime Prevention Through Environmental Design (CPTED) Principles	Refer to **Section 5.3.5** and the Design Report at **Appendix B**.	
Better Placed: An integrated design policy for the built environment of New South Wales	The objectives of Better Placed have been considered and responded to in the proposed design. The Architectural Design Report provides a detailed explanation of how the design has evolved. Responses to each objective of Better Placed are provided below.	
	Objective 1. Better fit contextual, local and of its place	The proposal has sought to respond to, and enhance, both the existing context of the school campus and the wider context of the site. The proposed building massing references and defines the key street edges along Golden Grove Street and Abercrombie Street. The community hall marks the corner of Abercrombie and Golden Grove Streets, as a significant element in the neighbourhood.
	Objective 2. Better performance sustainable, adaptable and durable	The proposal incorporates a sawtooth roof design that results in high internal amenity for the learning neighbourhoods (solar access, natural ventilation), as well as allowing for maintenance access and the installation of PV cells. An ESD framework is provided at **Appendix X** and will ensure a sustainable, adaptable and durable school is produced. Refer to **Section 3.11** and **Section 5.12** for further detail.
	Objective 3. Better for community inclusive connected and diverse	The new deign includes clearly legible and accessible access points, off both Golden Grove Street and Abercrombie Street. This will enhance connections to the community. The proposed new hall is accessible and will be available for community use.
	Objective 4. Better for people safe, comfortable and liveable	The proposed massing defines sight lines into and within the school, allowing for surveillance where needed as well as blocking views where needed. The principles of CPTED have been incorporated into the design as described at **Section 5.3.5**.

Instrument/Strategy	Comments	
	Objective 5. Better working functional, efficient and fit for purpose	The purpose of the proposal is to not only increase the school's population to align with the forecasted demographics but to also replace the ageing existing buildings to meet the current and future expectations of the learning methodologies. Important aspects which will be considered in the design are: • A diversity of learning spaces (availability of spaces of differing scale) • Open or enclosed spaces • Spaces which are interconnected • Spaces with a strong connection to the landscape.
	Objective 6. Better value creating and adding value	The proposal includes new education and community space that adds value to the school and local community. The proposal includes flexible design that can accommodate a range of school-based and community uses. This will contribute to better value creation in the future.
	Objective 7. Better look and feel engaging, inviting and attractive	The design responds to the surrounding street network and references existing elements of the school. Legible access will be provided with a high quality expression to the street. High quality materials will be utilised in the construction of the new school. Integration of landscape within the site provides an attractive and inviting learning environment for children.
Eastern City District Plan	The Eastern City District Plan sets out the strategic direction for the District, and reflects the priorities outlined in A Metropolis of Three Cities. Several planning priorities in the District Plan are relevant to the proposed development: • **Planning Priority E3: Providing services and social infrastructure to meet people's changing needs:** As noted in the District Plan, "the NSW Department of Education estimates that an extra 42,850 students will need to be accommodated in government and non-government schools in the District by 2036". The proposed development will assist in meeting this demand by providing additional primary school places to cater to growing demand within the catchment. The proposed development will also assist in meeting social infrastructure requirements by providing additional shared facilities that can be used by the local community outside of school hours. • **Planning Priority E4: Fostering healthy, creative, culturally rich and socially connected communities**: The proposed development will assist in community building efforts by expanding a key social connector that will provide opportunities for people to connect with each other. Further, as noted above, the school will provide shared facilities that will allow the community to congregate and connect. • **Planning Priority E5: Providing housing supply, choice and affordability, with access to jobs, services and public transport:** Although the proposed development does not provide additional housing, it does provide additional school places, which will assist in allowing more families in the catchment to access a school within 30 minutes of their home.	
Sustainable Sydney 2030	Sustainable Sydney 2030 is a strategic plan underpinned by a vision focussed on sustainability. The vision is to be a sustainable city in terms of the physical environment, economy, society and culture. In response, the proposal for Darlington Public School: • Incorporates ESD initiatives and will be designed and constructed to a standard equivalent to a 4 Star Green Star Design & As Built v1.2 rating • Will provide improved pedestrian and cyclist facilities • Provides opportunities for community uses of school facilities for cultural and creative activities • Will cater for the growing population both within the school catchment	
Local Strategic Planning Statement	The redevelopment of Darlington Public School gives effect to the LSPS by aligning with the following planning priorities: • **Priority 3: Supporting community wellbeing with social infrastructure**: The proposal will increase the capacity of the existing school, contributing to the social infrastructure for the local community, as well as providing more opportunities for joint community uses.	

<table>
<tr><th>Instrument/Strategy</th><th>Comments</th></tr>
<tr><td></td><td>

Priority 4: A creative and socially connected city: The proposal will encourage joint use of school facilities and will improve social connections in the city. Further, the proposal will provide better facilities for creative teaching and learning environments.
Priority 11: Creating better buildings and places to reduce emissions and waste and use water efficiently: The proposal has been designed to an equivalency of 4 Star Green Star and encourages sustainability through passive design features, rooftop PV cells and water reuse.

</td></tr>
<tr><td colspan="2">State Legislation</td></tr>
<tr><td>EP&A Act</td><td>
The proposed development is consistent with the objects of the EP&A Act for the following reasons:

It promotes the social welfare of the community
It allows for the orderly and economic development of land
It is development for public purposes and will facilitate the delivery of community services
It is of a high level of design quality as endorsed by the NSW Government Architect.

The proposed development is consistent with Division 4.7 of the EP&A Act, particularly for the following reasons:

The development promotes education services and stimulates social welfare of the community
The development has been evaluated and assessed against the relevant heads of consideration under Section 4.15(1).

</td></tr>
<tr><td>EP&A Regulations</td><td>
The EIS has addressed the specification criteria within clause 6 and clause 7 of Schedule 2 of the EP&A Regulation. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations), which assesses the threats of any serious or irreversible environmental damage (see Section 7.0).

As required by clause 7(1)(d)(v) of Schedule 2, the following additional approvals will be required in order to permit the proposed development to occur.
<table>
<tr><th>Act</th><th>Approval Required</th></tr>
<tr><td colspan="2">Legislation that does not apply to State Significant Development</td></tr>
<tr><td>Coastal Protection Act 1979</td><td>N/A</td></tr>
<tr><td>Fisheries Management Act 1994</td><td>N/A</td></tr>
<tr><td>Heritage Act 1977</td><td>N/A</td></tr>
<tr><td>National Parks and Wildlife Act 1974</td><td>N/A</td></tr>
<tr><td>Native Vegetation Act 2003</td><td>N/A</td></tr>
<tr><td>Rural Fires Act 1997</td><td>N/A</td></tr>
<tr><td>Water Management Act 2000</td><td>N/A</td></tr>
<tr><td colspan="2">Legislation that must be applied consistently</td></tr>
<tr><td>Fisheries Management Act 1994</td><td>No</td></tr>
<tr><td>Mine Subsidence Compensation Act 1961</td><td>No</td></tr>
<tr><td>Mining Act 1992</td><td>No</td></tr>
<tr><td>Petroleum (Onshore) Act 1991</td><td>No</td></tr>
<tr><td>Protection of the Environment Operations Act 1997</td><td>No</td></tr>
<tr><td>Roads Act 1993</td><td>Yes</td></tr>
<tr><td>Pipelines Act 1967</td><td>No</td></tr>
</table>
</td></tr>
<tr><td>Biodiversity Conservation Act 2016</td><td>An assessment of Biodiversity impacts is provided at Section 5.9.2. A Biodiversity Development Application Report is provided at Appendix U.</td></tr>
<tr><td>SEPP 55</td><td>The preliminary and detailed site investigations and Remediation Action Plan prepared for the site (see Appendix R) demonstrate that the site can be made suitable for the proposed development.</td></tr>
</table>

Instrument/Strategy	Comments	
SEPP (Infrastructure)	Provisions of the SEPP (Infrastructure) relating to Education have since been transferred to the Education SEPP as of 2017.	
SEPP (State and Regional Development)	Development that has a capital investment value of more than $20 million for the purpose of alterations or additions to an existing school is identified as SSD. The works have a CIV of over $20 million, and therefore qualify as SSD. A Quantity Surveyor's certificate prepared by DCWC confirming the total CIV is provided under separate cover	
SEPP (Educational Establishments and Child Care Facilities)	Under Clause 35(6) of the Education SEPP, the consent authority must take into consideration (a) the design quality of the development when evaluated in accordance with the design quality principles set out in Schedule 4 and (b) whether the development enables the use of school facilities (including recreational facilities) to be shared with the community. In accordance with Clause 35(6)(a), an Architectural Design Report has been prepared by FJMT (**Appendix B**). The design has been guided by the Design Quality Principles. Consultation has been undertaken with the State Design Review Panel to ensure that these design quality principles have been met. Community use of school facilities in accordance with Clause 35(6)(b) is described in Section 3.17. Clause 42 of the Education SEPP allows SSD that is for the purpose of a school to contravene development standards set in any environmental planning instruments. Clause 42 applies to this development regarding the building height development standard under the Sydney LEP. Refer to **Section 5.2.2** and **Appendix F**. The proposed development includes a preschool (child care facility) that has been designed in accordance with Part 3 of the Education SEPP, the Education and Care Services National Regulations and the NSW Child Care Planning Guidelines. Refer to **Appendix H** for a complete assessment against the relevant design guidelines. A summary of compliance with the relevant clauses of the Part 3 of the Education SEPP is provided below.	
	Clause 22 Centre-based child care facility – concurrence of Regulatory Authority required for certain development	Indoor and outdoor unencumbered space has been provided in accordance with the National Regulations. Therefore, concurrence of the Regulatory Authority is not required.
	Clause 23 Centre-based child care facility – matters for consideration by consent authorities	The consent authority is to take into consideration the matters outlined in the NSW Child Care Planning Guidelines. An assessment against the NSW Child Care Planning Guidelines is provided at **Appendix H**.
	Clause 26 Centre-based child care facility – development control plans	Provisions in the Sydney DCP that relate to operational, demand, proximity to other facilities, the design principles in Part 2 of the Child Care Planning Guidelines or matters for consideration of Part 3 or the regulatory requirements in Part 4 do not apply.
SEPP 64 Advertising and Signage	The proposal includes four signs as described in **Section 3.14**. The proposed signage is consistent with the objectives of SEPP 64 in that it: • Is compatible with the amenity and visual character of the surrounding area • Is integrated with the architectural of the building and provides effective communication of the school and preschool uses in appropriate locations • Will be of a high quality design, materiality and finish that matches the design of the new school building An assessment of SEPP 64 is provided at **Section 5.1.2** below.	
Draft SEPP (Remediation of Land)	The proposal remains consistent with the Draft policy as the proposed assessment has been undertaken in accordance with SEPP 55.	
Draft SEPP (Environment)	The site is identified as 'Urban Bushland'. The proposal requires the removal of 27 trees in order to accommodate the proposal. The design has been located to minimise impact on	

Instrument/Strategy	Comments	
	vegetation within the school's grounds, wherever possible. DPIE can be satisfied that the removal of vegetation is in the public interest and no reasonable alternative is available to the disturbance of vegetation proposed due to the significant site constraints of the school. Planting in excess of that proposed to be removed is proposed, which will increase the number of trees on the site.	
Local Planning Instruments and Controls		
Sydney Local Environmental Plan 2012	Clause 2.3 – Zone	The proposed Educational Establishment use is permissible with development consent in the SP2 zone. Under clause 35(10) of the Education SEPP, development for the purposes of a centre-based child care centre is permissible with consent within the boundaries of an existing school.
	Clause 4.3 – Height of Buildings	The proposed development has a maximum height of approximately 17.54m, which exceeds the maximum height limit of 9m. Refer to **Section 5.2.2** and **Appendix F**.
	Clause 4.4 – Floor Space Ratio	The proposed development has an FSR of 0.78:1, which complies with the maximum permissible FSR of 1.25:1.
	Clause 4.6 – Exceptions to Development Standards	A Clause 4.6 Variation Request for building height has been prepared by Ethos Urban and is provided at **Appendix F**. It is noted that clause 42 of the Education SEPP allows SSD for the purposes of a school to contravene a development standard in any environmental planning instrument.
	Clause 5.10 – Heritage Conservation	The site is not mapped or described as an item of heritage significance under the Sydney LEP. The proposed development responds appropriately to surrounding items of local heritage significance. Refer to the Heritage Impact Statement at **Appendix M** and **Section 5.5** for discussion.
	Clause 6.21 Design Excellence	A competitive design process is not required, as: • a development control plan is not required under Clause 7.20 • the development has a CIV of less than $100 million • the development will have a height of less than 25 metres (noting the site is not within Central Sydney).
	Clause 7.3 – Car Parking	No on-site parking is proposed and the development therefore complies with the maximum rates set out in the Sydney LEP.
	Clause 7.14 – Acid Sulfate Soils	The site is identified as Class 5 land on the Acid Sulfate Soil Map.
	Clause 7.15 – Flood Planning	A small portion of the site is flood affected, fronting Golden Grove Street in the south-western corner. Refer to **Section 5.11.2** for detail.
	Clause 7.20 - Development requiring or authorising preparation of a development control plan	As per Clause 8(2)(i) of the Education SEPP, Clause 7.20 of Sydney LEP 2012 does not apply to development to which the Education SEPP applies. As such, the preparation of a development control plan is unnecessary in the circumstances.
Sydney Development Control Plan 2012	The Sydney Development Control Plan 2012 (Sydney DCP) provides detailed controls for specific developments types and locations. Most controls in the Sydney DCP relate to character, streetscape and public domain works. However, under Clause 11 of *State Environmental Planning Policy (State and Regional Development) 2011*, the application of Development Control Plans is excluded when assessing SSD projects. Notwithstanding,	

Instrument/Strategy	Comments	
	the proposal has been assessed against the key relevant controls of the SDCP 2012 is provided below.	
	2.3.2 Darlington/West Redfern Character Statement	The proposed development is sympathetic to surrounding heritage items and conservation areas. There is an acceptable impact on the surrounding terrace row houses.
	3.2.7 Reflectivity	Most of the façade is brick. Glazing will be selected to have a normal reflectivity not exceeding 20% ensuring reflectivity is minimised.
	3.6 Ecologically Sustainable Development	The new school building implements the principles of ESD and is designed to achieve an equivalency of 4 Star Green Star rating in accordance with the DoE ESD Framework.
	3.7 Water and Flood Management	The proposed stormwater design will comply with the relevant controls in the DCP. Refer to the Civil Design Report at **Appendix T** for detail.
	3.9.1 Heritage Impact Statements	A Heritage Impact Statement is provided at **Appendix M**. Refer to **Section 5.5** for further discussion.
	3.11.1 Managing Transport Demand	A Traffic and Transport Assessment is provided at **Appendix L**, including a Green Travel Plan. No on-site parking is provided, and the use of active transport is encouraged through the design of the new school building.
	3.12 Accessible Design	Accessible design has been a key consideration in the design of the new school building. Refer to the Accessibility Report provided at **Appendix AA**.
	4.4.4 Child Care Centres	The proposed child care centre is generally consistent with the objectives of the Sydney DCP in that it contains less than 90 places, is well designed to meet the needs of preschool children and will not unreasonably impact the amenity of surrounding residences.

5.1.1 Roads Act 1993

In accordance with Section 4.42 of the EP&A Act, the provisions of Section 138 of the Roads Act 1993 continue to apply to SSD. The development involves works to Golden Grove and Abercrombie Streets, and so requires approval under Section 138(1)(a) of the Roads Act 1993. This application will be referred to City of Sydney Council for approval.

5.1.2 State Environmental Planning Policy 64 – Advertising and Signage

SEPP 64 applies to all signage that, under an Environmental Planning Instrument, can be displayed with or without development consent and is visible from any public place or public reserve.

For the purposes of this assessment under SEPP 64, the proposed signs are considered to fall under the definition of building identification signage. This is because the signs indicate the building name, and do not include any advertising relating to a third party who does not carry out business on the premises.

Clause 3 states the aims and objectives of SEPP 64 which are:

(a) to ensure that signage (including advertising):
- *i. is compatible with the desired amenity and visual character of an area, and*
- *ii. provides effective communication in suitable locations, and*
- *iii. is of high quality design and finish, and*

(b) to regulate signage (but not content) under Part 4 of the Act, and
(c) to provide time-limited consents for the display of certain advertisements.
(d) to regulate the display of advertisements in transport corridors, and
(e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.

The proposal is consistent with the above aims and objectives, in that it will:

- Feature a distinct and high-quality design that is integrated with the architecture of the new building;
- Effectively communicate to the public the location and use of the building at the primary public entrances;
- Positively contribute to the streetscape and ensure minimal visual disruption by integrating to the building design; and
- Make use of high-quality materials and finishes.

Schedule 1 of SEPP 64 contains a range of assessment criteria. The way in which the proposed development meets the assessment criteria is set out in **Table 7**.

Table 7 Consistency with SEPP 64

Schedule 1 Assessment Criteria	Comments	Compliance
Character of the area		
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The proposed development is compatible with the desired character of the local precinct.	Y
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	The proposed development is generally consistent with the nature and siting of the building as a public building providing education services. Accordingly, the signage including type is clear and legible in communicating the use of the building for the public.	Y
Special areas		
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposed signage does not detract from any surrounding areas, including heritage conservation areas. The location is not part of any other environmentally sensitive location.	Y
Views and vistas		
Does the proposal obscure or compromise important views?	The proposed signage is integrated with the proposed building and therefore will not result in any obstruction of views, and the location and content of signage will not otherwise compromise important views within the precinct.	Y
Does the proposal dominate the skyline and reduce the quality of vistas?	The proposed signage is appropriate to the scale of the building and intended use as a building identification sign.	Y
Does the proposal respect the viewing rights of other advertisers?	The proposed signage does not impact upon the viewing rights of other advertisers.	Y
Streetscape, setting or landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The scale, proportion and form of the proposed signage is consistent with the setting of the school within the residential and education neighbourhood.	Y
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	The proposed signage contributes to the visual interest of the streetscape by contributing to the identification and recognition of the school.	Y
Does the proposal screen unsightliness?	The proposed signage is integrated with the architecture of the building and will enhance otherwise blank walls.	Y
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	The proposed signage does not generally protrude above the building. The digital signage board has been placed to ensure visibility from the streetscape.	Y
Does the proposal require ongoing vegetation management?	The proposed signage will not require ongoing vegetation management.	Y
Site and building		
Is the proposal compatible with the scale, proportion and other characteristics of the site	The proposed signage has been designed to be fully compatible with the building and is compatible with the architecture of the building.	Y

Schedule 1 Assessment Criteria	Comments	Compliance
or building, or both, on which the proposed signage is to be located?		
Does the proposal respect important features of the site or building, or both?	The proposed signage has been located in the most architecturally appropriate locations to assist in place identification and wayfinding.	Y
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The proposed signage has been fully integrated with the building architecture.	Y
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	No safety devices, platforms, lighting devices or logos are incorporated as an integral part of the signage.	Y
Illumination		
Would illumination result in unacceptable glare?	Illumination of signage will not result in unacceptable glare, and the location of the proposed signage will not have an adverse impact on the safety of pedestrians, vehicles or aircraft.	Y
Would illumination affect safety for pedestrians, vehicles or aircraft?		Y
Would illumination detract from the amenity of any residence or other form of accommodation?	The location and orientation of signage is such that it will not impact on nearby residential receivers.	Y
Can the intensity of the illumination be adjusted, if necessary?	The signage will not have adjustable lighting. A curfew will be implemented for the digital signage board and school sign if required.	Y
Is the illumination subject to a curfew?		Y
Safety		
Would the proposal reduce the safety for any public road?	The proposed signage has been located in order to avoid any adverse impacts on public roads, and views to building signage will generally be presented to the primary public entrance.	Y
Would the proposal reduce the safety for pedestrians or bicyclists?	The proposed signage will be located above ground level and will not distract from essential sight lines for pedestrian and cyclists.	Y
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The proposed signage will be integrated with the buildings and will not obscure sight lines from public area.	Y

5.1.3 SEPP (Educational Establishments and Child Care Facilities) 2017 – Centre Based Child Care

The Education and Childcare SEPP aims to ensure once a childcare centre is approved and built it can meet the physical requirements for the subsequent service approval application. The Education and Childcare SEPP absorbs key requirements from the *National Quality Framework for Early Childhood Education and Care Facilities* into the NSW planning system and supersedes local planning controls that are inconsistent with the National regulations.

Key elements of relevant to the proposal are:

- A requirement to take Part 2, Part 3 and Part 4 of the Childcare Planning Guideline into consideration when assessing development applications; and
- The establishment of grounds on which a development application for a centre based child care centre cannot be refused by the consent authority.

Part 2 contains seven Design Quality Principles that establish the broad design context guide of all new proposals.

Part 3 covers Matters for Consideration that support the Design Quality Principles and must be considered by the consent authority when assessing a DA. Essentially, if a proposal is consistent with the Matters for Consideration, the proposal will satisfy the Design Quality Principles. Part 4 contains the guidance on how to apply the National regulations to development proposals.

Accordingly, **Appendix H** provides an assessment against Part 2, Part 3 and Part 4 of the Child Care Planning Guideline, demonstrating that the proposal is consistent with the Education and Childcare SEPP, the Childcare Planning Guidelines and the National Regulations.

5.2 Built Form and Urban Design

An Architectural Design Report has been prepared by FJMT and is included at **Appendix B**. A summary of the assessment and proposed mitigation measures are provided below.

5.2.1 Site Layout

The new school building has been located in an L-shape along the Golden Grove Street and Abercrombie Street frontages. This helps define the main linear street frontages, while providing adequate separation from adjoining properties to the east and allowing for a significant amount of internal site area for landscaped and playground areas. The proposed building arrangement also helps frame selective views into and out of the school and enclose the school without needing extensive fencing.

The school and community hall is located on the Abercrombie and Golden Grove Street corner to define the corner as a landmark for the community. The library and main COLA are located in the centre of the site, representing the heart of the campus.

5.2.2 Height, Density, Setbacks, Bulk and Scale

The proposed new building is part 2 part 3-storeys in height, which continues the height of surrounding buildings including the former IXL Garage building, the University of Sydney Business School and surrounding terrace row houses. The maximum building height is approximately 17.54m and occurs at the southern end of the three-storey volume along Golden Grove Street. This exceeds the maximum building height under the Sydney LEP of 9m that applies to the site.

Clause 42 of the Education SEPP reads as follows:

> ***42 State significant development for the purpose of schools—application of development standards in environmental planning instruments***
> *Development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted.*

Notwithstanding, and for completeness (to address the SEARs), a Clause 4.6 Variation Request has been prepared by Ethos Urban (**Appendix F**) that provides an assessment of the building height development standard variation against Clause 4.6 of the LEP.

The rhythm of the existing surrounding streetscape throughout Darlington has been maintained, with the proportions of the new school building respecting the streetscape and context while responding to the needs of the future school. The form and scale of the building also provides a high level of amenity to the teaching spaces, including a sawtooth roof that accommodates environmental amenity, ESD initiatives and allows for maintenance.

Consistent with the existing building arrangement, the proposed new building is built to the street frontage along Golden Grove Street to define the street edge. Upper levels are set back to reduce their dominance of the street. The school building is set back from the eastern site boundary by over 30m to allow for appropriate separation and playground area while limiting views into the school from adjoining buildings. Setbacks to the south and west are near zero to define the street frontage and prevent views into the school grounds. Part of the northern boundary has a zero setback to (up to Level 1) adjacent to the former Jones IXL factory garage building. No building massing is proposed along the eastern portion of the northern boundary.

5.3 Environmental Amenity

5.3.1 Solar Access and Overshadowing

Shadow diagrams for 21 June (mid-winter) are provided at **Appendix A** and reproduced below at **Figure 34**. The analysis shows that the proposed new school building results in some additional overshadowing across Abercrombie Street during the morning hours. The sawtooth design of the roof, particularly that of the hall, results in no overshadowing of St Michael's Church.

There is some minor additional overshadowing of the terrace houses across Abercrombie Street to the south in the afternoon, however these dwellings enjoy sunlight across the remainder of the day. These increases in shadows are considered minor and acceptable in the context of the development and amount of sunlight maintained throughout the day to surrounding development.

The school playground benefits from high levels of sun throughout the day, which are hours in which children are present.

Figure 34 Shadow Diagrams Showing Proposed Shadow (blue) and Existing Shadow (red) Mid-Winter

Source: FJMT

5.3.2 Visual Privacy

A Visual Privacy Assessment has been provided by FJMT at pages 30-31 of **Appendix B**. A summary of the assessment and mitigation measures is provided below.

Assessment

The FJMT assessment has considered potential overlooking to the school from the immediate surrounding neighbours on all sides of the site, as shown in **Figure 35**. Key views into the site are from University housing to the north and east, the Sydney University Business School to the east and residential buildings/businesses across Abercrombie Street to the south.

The FJMT assessment finds that the massing of built form creates a protective wall around the school without the need to introduce extensive screening. This blocks views into the school from Golden Grove Street, including residences across the road, as well as across most of Abercrombie Street.

The landscaping strategy as proposed in **Appendix I** helps obscure views into the school playground from the east.

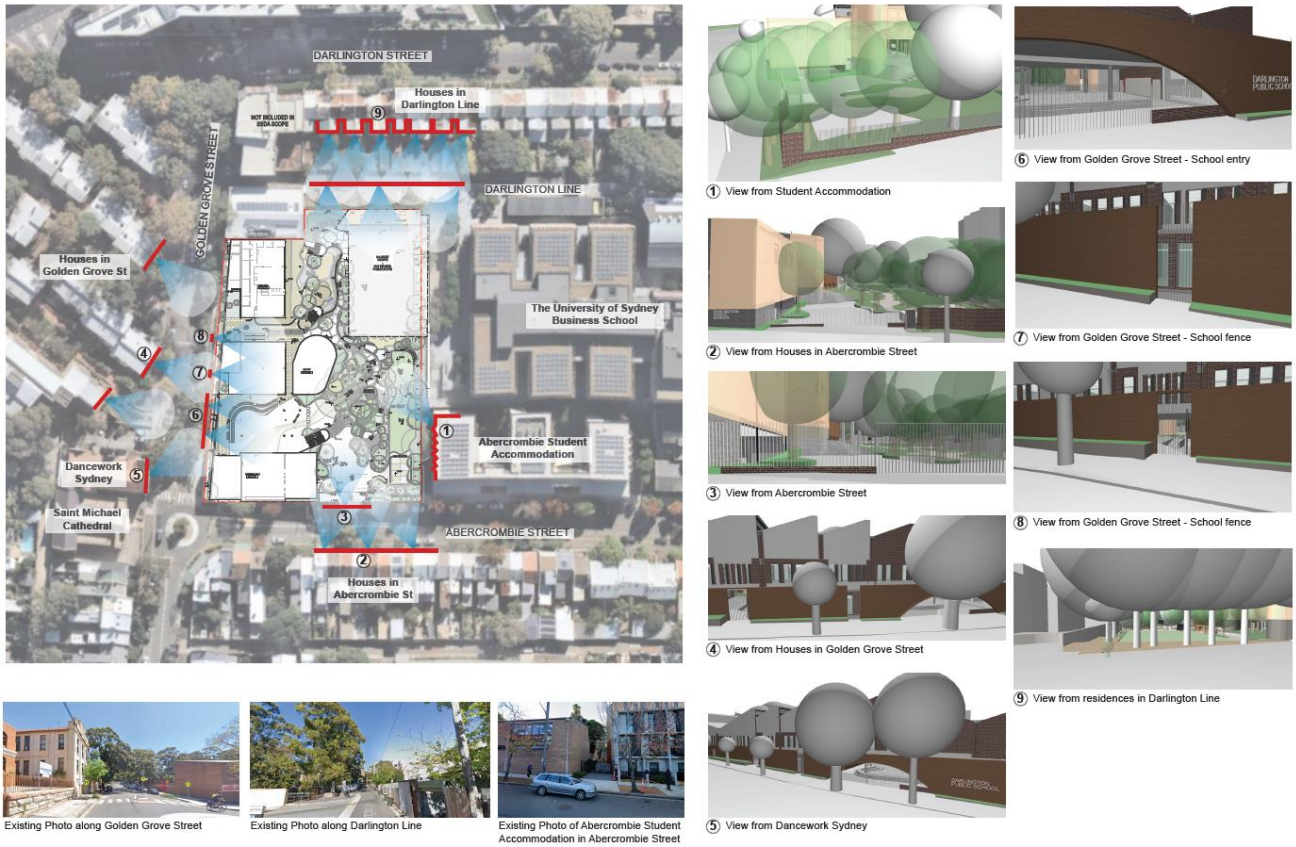

Figure 35 Visual Privacy Study

Source: FJMT

Mitigation Measures

An additional two trees are proposed within the Landscape Plan provided at **Appendix B** to obscure views into the playground from the University's student accommodation located to the east of the site.

5.3.3 View Loss and Visual Impact

A Visual Impact Assessment prepared by Ethos Urban is provided at **Appendix EE**. The assessment finds that:

- The potential public and private domain visual catchment of the site is small;
- The external exposure of the school to the public and private domain is limited to surrounding streetscapes;
- The proposed development would not create any significant negative visual effects in relation to the character or composition of public or private domain views;
- The visual effects of the proposed development are positive in relation to the west and south streetscapes due to the improvement of the street-wall built form, increased spatial separation to built forms, incorporation of internal open spaces and retention of visually significant tree canopy;
- The proposed built forms are unlikely to create any significant view loss in public and private domain views; and
- The proposed development is compatible with the immediate and wider visual context which includes education and institutional buildings of similar height, bulk and scale.

In light of the above, the proposal has an acceptable visual impact without the implementation of any mitigation measures.

Due to the commensurate height, bulk and scale of the proposed new school building, there will be no adverse impacts on views within, from, or to the local area.

5.3.4 Wind

The proposed new school building is of a scale that is commensurate with the surrounding buildings at the site and is not expected to result in any significant impacts on wind environment within or surrounding the school. Extensive landscaping and tree planting throughout the site, along with retention of many trees will help mitigate the impacts of any strong winds.

5.3.5 Crime Prevention Through Environmental Design (CPTED)

The development implements the principles of Crime Prevention Through Environmental Design (CPTED), as identified in the Department of Planning's guideline titled Crime Prevention and the Assessment of Development Applications (2001) as outlined in **Table 8** and in the Design Report at **Appendix B**.

Table 8 Consistency with CPTED Principles

Principle	Response
Access Control	Circulation around and through educational facilities needs to be clear in the definition of where people can and cannot go. The use of physical barriers (e.g. fencing, walls and locked doors) and symbolic barriers (e.g. landscaping and changes in level) are important in access control. The following design responses are included to implement access control: • The building form and location restricts access • The main entries to the site will be controlled with 2.15m palisade gates. • Fencing along the eastern side of the site (adjacent to the University of Sydney) will be 1.825m palisade and will restrict access to the site. • Fencing to the north of the site will be a 2.15m palisade fence. • The landscape design responds to pedestrian movement paths and guides people to entries and public spaces. • On-site vehicle access is limited to maintenance and emergency vehicles only.
Surveillance	Natural and technical surveillance are important in the case of a school, where surveillance is required from teachers to students and from students to students. The following design responses are included to provide clear surveillance: • Clear sight lines have been provided between public and functional spaces. For example, the entrances to all "public" facilities can be seen from the central COLA. • Internal and external pathways and circulation areas are wide and open, while smaller, constrained corridors are minimised. • The Learning Hubs are a series of interconnected spaces along a covered walkway - these have been designed to be as open as possible so that surveillance, both from the classroom out to the walkway and from the walkway into the classroom is possible. • The Staff Room, Library and Administration are distributed across the site which will assist with an adult presence throughout the entire campus (i.e. at the main entrance, at the centre of the school and on the upper level). • The Entry Administration area will provide a secure entry into the school complying with the DoE requirements. • Approximately 4-5 staff will be required for playground duty during recess and lunch. • After-hours external lighting is consistent along pathways with increased lighting at facility entries. • Egress paths are open and integrated into the overall design - access is egress.
Territorial Reinforcement	Areas that are well-maintained and well-used generate a feeling of "ownership" and thus reduce opportunities for criminal activity. Public areas need to clearly define their intended use and encourage community activity. The following design measures have been implemented to provide territorial reinforcement: • The location of the school, on the corner of Golden Grove and Abercrombie Streets clearly defines its presence in the local area. • The location of the main entrance gate and the COLA provides an informal gathering space for the school community. Upon entry into the campus, wayfinding is extremely clear through the hierarchy of external and internal circulation spaces. • The central COLA brings together all sides of the campus and reinforces the identity of Darlington Public School. • The landscape design has distinct character areas, each with a different feel and purpose of activity, eliminating potential dead/unclaimed spaces.
Space Management	Areas need to be attractive and well-maintained with regular removal of waste, mowing, removal of graffiti, repair of vandalism and the repair of broken equipment/furniture. This applies to both public and

Principle	Response
	communal “private” areas. The following design measures have been implemented to provide space management: • Management methodologies have an emphasis on damage, graffiti and maintenance management to ensure the facility presents a clean, cared-for environment. • Selection of materials, furniture and fittings will have an emphasis on reducing vandalism to assist in space management. • Gathering spaces are integrated into the design, minimising vandalism. • The palisade fence at the main entry will align with the overhang to reduce the likelihood of loitering outside of school hours.

5.4 Transport and Accessibility

A Traffic and Transport Impact Assessment has been prepared by TTPA and is included at **Appendix L**. A summary of the key findings of the assessment are provided in the following sections.

5.4.1 Travel Mode

A travel mode survey undertaken by TTPA shows that the existing mode share for travel to and from the school (**Table 9**). Over 70% of the school population either walk or bicycle/scooter to school, demonstrating a high rate of existing active transport uptake.

Table 9 Existing Mode Share for Travel to and From School

Mode of Travel	AM	PM
Walk	44.6%	41.2%
Bicycle/Scooter	28.5%	29.4%
Car	26.9%	20.6%
Bus	-	8.8%

Source: TTPA

5.4.2 Parking

As described in **Section 3.9**, there is no on-site parking proposed. To accommodate drop off and pick up for the school and child care centre, the following modifications are proposed to the existing kerbside parking arrangements:

- Golden Grove Street
  - 9 x Kiss and Ride only (parents remain in car) spaces between 8.30am and 9.30am and 2.30pm and 4.30pm on school days
  - 3 x 15 minutes parking between 8.30am and 9.30am and 2.30pm and 4.30pm on school days
  - 1 x Loading Bay between 9.30am and 2.30pm on school days to serve the needs of service vehicles and/or excursion buses
- Abercrombie Street
  - 2 x 15 minutes parking between 8.30am and 9.30am and 2.30pm and 4.30pm on school days
  - 1 x accessible x 15 minutes parking between 8.30am and 9.30am and 2.30pm and 4.30pm on school days
  - 1 x accessible parking space

Due to the high proportion of students that bicycle/scooter to school, the above provision of vehicle drop-off is deemed appropriate. Parking will be permitted outside of the above school operational hours.

Mitigation Measures

Changes to the existing kerb, island, and parking signage are required and are described in detail at Section 6 of **Appendix L**.

5.4.3 Bicycle Parking

A dedicated bicycle/scooter parking room is provided on Lower Ground Level of the new school building. Parking for up to 67 bicycles/scooters will be provided, which is considered sufficient to accommodate the expected number of bicycles/scooters that would be left at school throughout the day. A separate end of trip facility is proposed for staff including staff change rooms and showers.

5.4.4 Traffic Generation

Vehicle Generation

Based on the application of survey results, the school's traffic generation rate is:

- AM Peak: 0.27 vehicle movements per student
- PM Peak: 0.21 vehicle movements per student

The resulting traffic generation and a comparison with existing rates is shown in **Table 10.**

Table 10 Comparison of Existing and Proposed Vehicle Trip Generation

Case	AM Peak	PM Peak
Existing School	55	40
Proposed Development	112	87
Net Increase:	57	47

Source: TTPA

Intersection modelling was undertaken using a SIDRA analysis for the King Street/Darlington Road and Golden Grove/Abercrombie Street intersections. The results are described in **Table 11**.

Table 11 Comparison of Existing and Proposed Level of Service at Key Intersections

Case	AM Peak		PM Peak	
	LOS	Average Delay	LOS	Average Delay
Existing				
King Street/Darlington Road	A	9.5s	A	11.5s
Golden Grove/Abercrombie	A	8.6s	A	8.5s
Post-Development				
King Street/Darlington Road	A	11.6s	A	13.0s
Golden Grove/Abercrombie	A	8.6	A	8.4s

Source: TTPA

The proposed development will result in a slight increase in delay at each intersection during the AM and PM peaks. All intersections will retain their good 'A' level of service without the need for any mitigation measures.

Bicycle and Pedestrian Generation

If the existing rates of active transport are maintained with the school redevelopment, the following additional bicycle and walking trips will be generated:

- Bicycle: 74 additional students
- Walking: 50 additional students

It is noted that not all students will be expected to keep their bicycle/scooter at school. Therefore, the new bicycle parking facilities proposed on-site are sufficient to accommodate the above increase. Access arrangements for walking and cycling will be improved at the site. The surrounding footpath network is sufficient for the above increases.

5.4.5 Loading and Servicing

Loading and servicing access, including waste pickup, will take place at the northern end of the site off Golden Grove Street, adjacent to the proposed on-street waste collection area (as described in **Section 3.9**). The proposed on-street waste arrangement is an improved outcome from the existing arrangement which requires waste vehicles to reverse onto the site. By providing a waste collection area, pedestrian conflicts will be minimised by avoiding the need for vehicular footpath crossover.

Maintenance and emergency vehicle access will be provided at all times from the Abercrombie Street driveway.

5.4.6 Construction Traffic Management

As described in **Appendix L**, construction related traffic movements are expected to be approximately 2 trucks per day with a maximum of 8 trucks per day during peak construction (16 movements per day). The small number of vehicle movements are not expected to have an adverse impact on the local street network, however queuing or marshalling of construction vehicles will not be permitted on the road network and call-up procedures will be put in place to manage arrivals.

Workers typically begin and end their workday outside of network peak periods (i.e. 6.30am – 3.30pm) and as such are unlikely to have an adverse impact the surrounding road network.

All workers will be directed to not park in the surrounding streets and instead use the available public transport to access the site given the site's proximity to high-frequency public transport services or to carpool wherever possible. Construction access is discussed at **Section 5.10.3**.

Mitigation Measures

A detailed Construction Traffic Management Plan will be prepared by the future contractor for the construction stage of the project.

5.4.7 Green Travel Plan

A Green Travel Plan has been prepared by TTPA and is provided at Section 9 of **Appendix L**. The objectives of the Green Travel Plan are to:

- Reduce dependence on private cars
- Improve pedestrian and cycling facilities
- Promote public transport and car sharing
- Reduce congestion in the local area

The travel plan will be developed, implemented and overseen by a Travel Plan Coordinator, nominated by DoE. Recommended initiatives to be implemented in the detailed Green Travel Plan include:

- Ride to work/school days
- Pedometer-based walking programs
- Walk/bicycle busy schemes
- Distribute green travel awareness pamphlets
- Provide interactive/real-time timetables on-site to promote public transport uptake
- Provide umbrellas during wet weather
- Incentivise ride sharing schemes

Target mode shares for the Green Travel Plan are shown in **Table 12**.

Table 12 Target Mode Share

Mode	AM	PM
Walk	45%	45%
Bicycle/scooter	35%	35%
Car	10%	10%
Bus	10%	10%

Source: TTPA

Mitigation Measures

Develop a detailed Green Travel Plan, adopting some of the recommended initiatives described above and appoint a Travel Plan Coordinator.

5.5 Built Heritage

A Heritage Impact Assessment has been prepared by GML and is provided at **Appendix M**. A summary of the assessment and proposed mitigation measures is provided below. For a discussion of Aboriginal Cultural Heritage, refer to **Section 5.7** below.

Assessment

The assessment by GML draws the following conclusions:

- The proposed development is generally compatible in scale and form with the Darlington/West Redfern Locality design principles, the character of the adjacent Golden Grove Conservation Area and heritage items in the vicinity.
- The formal street corner and new school design will contribute positively in form to the historic corner at the intersection of Abercrombie Street and Golden Grove Street.
- Important views, including along Abercrombie Street to the terminating vista of St Michael's Church, will be retained.
- The proposed siting, form, details and materials will be compatible with heritage items in the vicinity, including the former Jones IXL factory garage building which the development abuts to the north. Further, the proposal adjoins the former Jones IXL factory garage building on a secondary façade, is lower in height at the point of joining and utilises face brickwork.
- The loss of existing school buildings will be offset by the potential positive heritage impact of the new school.
- Existing Aboriginal art should be retained and incorporated in the new school design (refer to **Section 5.7** and **Appendix N** for further detail)**.**

Mitigation Measures

The following mitigation measures are identified by GML:

- Prepare a construction methodology to ensure against damage to the heritage items in the vicinity, in particular the former Jones IXL factory garage building (including vibration impacts).
- Undertake a photographic archival recording of the existing school, its buildings, exterior/interior spaces, artwork and landscape (in accordance with NSW Heritage Office guidelines).
- Prepare an Art Management Strategy, in association with representatives from the school community, to manage moveable and fixed artwork during design development.
- Prepare a Heritage Interpretation Plan that considers findings of both the Heritage Impact Statement and the ACHAR.

5.6 Social Impacts

A Social Impact Assessment prepared by Ethos Urban is provided at **Appendix O**. The report has undertaken an assessment of the social impact categories, as defined within the Social Impact Assessment Guideline (DPIE, 2017), with consideration to the issues identified through the baseline analysis. A summary of the assessment and mitigation measures is provided below.

Assessment

The most significant social benefits of the proposal relate to:

- The improvement in access to public school infrastructure in the City of Sydney LGA, with the ability for the Darlington Public School to cater for a growth in demand for school enrolments and provision of high quality education spaces within the local area to benefit life-long learning outcomes for students.
- The school is within proximity to a range of social infrastructure in the form of community facilities, cultural and entertainment and commercial areas. The redevelopment of the school will present opportunities for the expanded school population to benefit from current and future programs and services offered by neighbouring facilities, in particular the spaces and services that may be offered by the University of Sydney. Future partnerships may be established to enhance student learning outcomes and engagement with the surrounding community.
- Improved enrolment opportunities to a school which is well connected to public and active transport networks.
- Improved surroundings associated with the renewal of the site providing improvements to the local amenity of the area.
- Opportunities to celebrate the school and community's connection to Aboriginal or Torres Strait Islander culture, history and narratives through the design of the school.
- There are opportunities to engage with the broader City of Sydney community, potentially considering the use of shared use of the facilities at the school. It is recommended that engagement continue throughout the development stages to develop a program of how the school may be able to be used by other local community groups, outside school hours of operation.

Key challenges identified with the proposal relate to:

- The project may have some amenity impacts on surrounding residents and visitors during construction. Not only amenity but there may be some potential short-term changes to sense of place in the primary study area during the construction phase associated with an increased construction workforce, resulting in unfamiliar visitors to the area. Any potential impacts will be managed in accordance with the Construction Management Plan (**Appendix K**).
- Construction impacts may have a slight impact on the health and wellbeing, and on the amenity of the school, for students and staff. Any potential impacts will be managed in accordance with the Construction Management Plan, and with Department of Education policy. Safety, and continued operations, will be given priority.
- There is a minor risk that the use of school infrastructure on the site would be disrupted during the construction phase due to construction activity. Students will not be decanted to another site during construction, and there may be impacts on learning environments associated with decanting, as well as amenity-related impacts. However, any potential impacts will be managed through a robust staging plan.

Mitigation Measures

Measures developed to mitigate potential negative social impacts and enhance the benefits of the proposal include:

- Monitoring and management of impacts in collaboration with key stakeholders, to effectively address them if/ or when they arise.
- Mitigation of potential construction impacts through compliance with a comprehensive Construction Management Plan, with a communication plan recommended to be developed to ensure all neighbours and relevant parties are informed about the development. Safety for students, staff, visitors and residents is to be effectively managed, through comprehensive security management plans and crime prevention strategies during both the construction and operational phases.

Overall, it is considered that with a range of mitigation measures to manage identified risks in place, the project is anticipated to bring significant public benefits to the local and broader communities.

5.7 Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared by GML and is included at **Appendix N**. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

Darlington Public School is deemed to have low potential for Aboriginal archaeological artefacts due to the long history of site disturbance. However, the school was assessed as having substantial historical and social significance as well as some scientific and aesthetic significance. This is due mostly to the school's social connection to the community and not necessarily the existing design or built form elements at the site. The school is connected with teachers, students and the local Aboriginal community through elements such as teaching programs, collections of artworks, the school song and logo.

GML's assessment indicates that the school redesign has, from the outset, considered Aboriginal heritage and connections. The following aspects of the architectural and landscape design have been included to respond to the unique Aboriginal heritage significance of the site:

- Recognition and celebration of Aboriginal cultural heritage throughout the design as a key consideration underpinning the redevelopment of the school. This forms a key part of the Design Report provided at **Appendix B**.
- Consideration of heritage aspects in certain key spaces in the new school design, including the entry undercroft, school hall, library, classrooms and yarning circles.
- The design acknowledges the artwork, murals and objects as being integral to the school's identity. The design has sought to integrate these aspects into the new school. Key murals such as the Year 6 art wall will be retained, with consideration for future expansion of the artworks given.
- Further consideration has been given to the special placement of key artworks, including the Jarjum rugs, Year 6 artworks and totems, murals, the burnt door and carved sandstone blocks.
- The proposed landscaping challenges the natural constrains of the site and develops external gardens, grounds and play spaces that are linked to learning games and different learning languages, featuring natural elements such as water, sand and rock.
- The proposed landscaping seeks to retain existing 'fabric' from school murals that cannot be retained during redevelopment. These aspects will be incorporated into the landscaping.
- Consideration of key ESD principles has been given which focus on natural elements including light, water and wind. These considerations have investigated the changing seasonal movements of light and wind and seek to highlight these elements in the new design through passive design features.
- Movement through the new school is based on a network of pathways, lines, spaces and shortcuts, allowing for interaction with the site.

Mitigation Measures

The proposed design responds appropriately to the Aboriginal cultural heritage of the site. The following mitigation measures are proposed to ensure the ongoing management of Aboriginal cultural heritage for the school:

- Design of internal spaces should consider student and parents needs while considering Aboriginal heritage and successful existing spaces
- Engagement with the community should continue for the ongoing design development of internal spaces.
- Key items and aspects should be 'transferred' into the new school. This should be undertaken by:
  - Creating an archival recording of the existing school prior to demolition.
  - Conserving and transferring (where feasible) the existing movable art collection to the new school. Items to be conserved include the Jarjum rugs, digeridoos, the Aboriginal design 'burnt door' (as an artwork, not as a functional door). Murals that cannot be conserved could be photographed and printed on large canvases.

- Provide a teacher/student guide to the art.

- Include native plants in the landscape design.
- Consider requirements for cultural spaces as the school grows.
- Include spaces and facilities for the creation of new art within the design of the school.

5.8 Noise and Vibration

An Acoustic Assessment has been prepared by Acoustic Logic and is provided at **Appendix G**. The report assesses the noise and vibration impacts during the construction and operational stages of the project. A summary of the assessment and proposed mitigation measures are described below. Noise emissions were assessed for a total of six surrounding receivers, including residential uses such as the University Regiment Building (former Jones IXL factory garage), University student housing and residential dwellings across both Abercrombie and Golden Grove Streets, as shown in **Figure 36**.

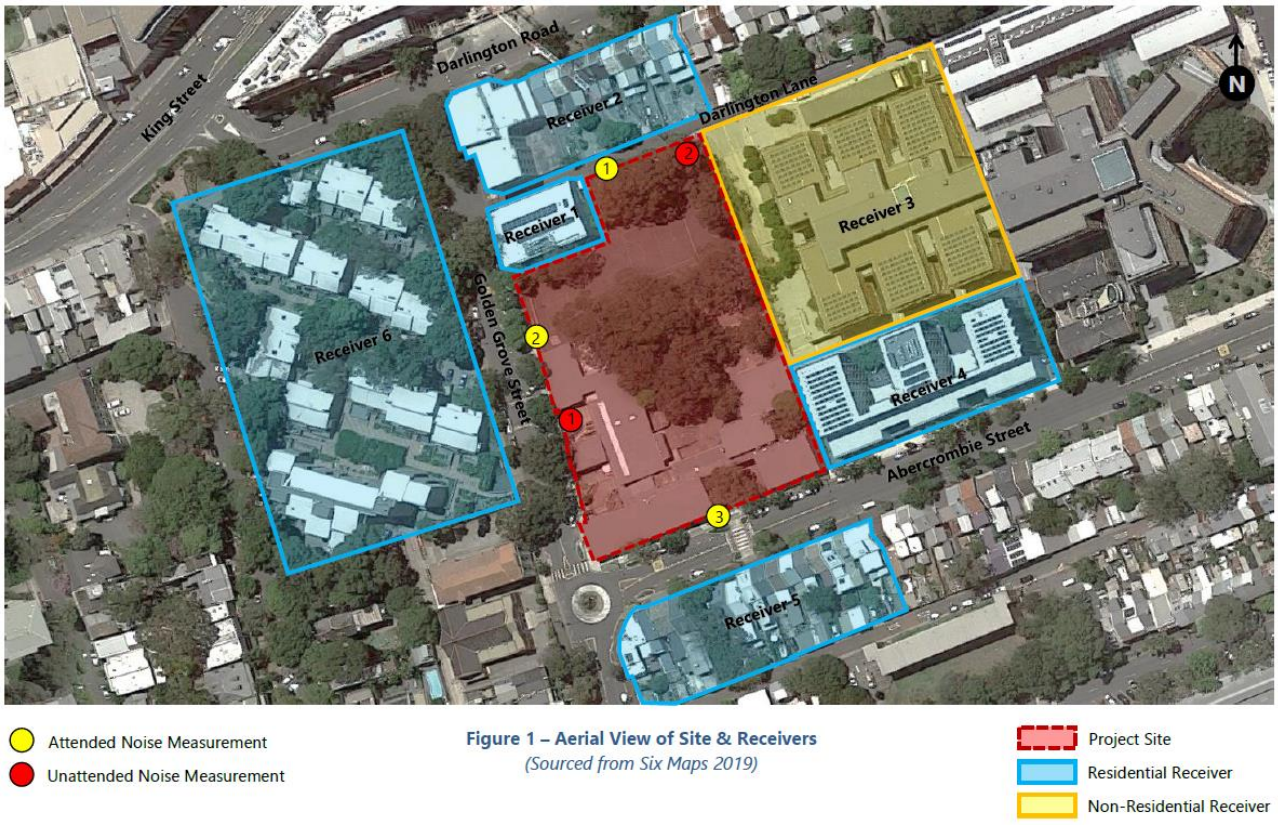

Figure 36 Acoustic Receivers

Source: Acoustic Logic

5.8.1 Operational Noise Impacts

Assessment

The following assessment is provided for the expected sources of operational noise emissions:

- **Noise from internal areas**: Administration and teaching spaces are considered to have an acceptable impact due to their location away from nearby receivers. Noise from use of the hall and the COLA would result in 46dBL (doors open) at the most affected receiver (residences across Golden Grove Street). The background +5dB(A) noise emissions criteria are not exceeded at any time.
- **Noise from mechanical plant, the PA system and school bell**: Acoustic treatment of the mechanical plant is possible and can be further determined at the detailed design stage. The PA system and school bell should be located and designed to minimise impacts to surrounding properties.

- **Traffic generation**: Noise emissions from drop off and pick up activities will be comparable to the existing noise levels.
- **Waste removal**: The waste removal location is appropriate to reduce noise emissions to nearby receivers. Waste removal should be restricted to the times outlined below.
- **External activities (i.e. outdoor play)**: During recess and lunch, residential receivers to the north of the school will experience noise levels of up to 69dB(A)L. While this is above the background +5dB(A) criteria, the noise should be considered as 'community noise' and is acceptable in the context given that the school already exists in what is a common land use scenario located near residential dwellings.
- **Non-school and after hours uses**: Use of the hall will result in similar noise emissions as described above. The use of the COLA and basketball courts after hours should be limited (see below).

The school is not impacted by any local environmental noise sources other than traffic. Recommendations as described below are relating to the design of windows to ensure appropriate internal noise levels are met.

There would be no operational vibration impact from the proposal as there would be no vibration sources that would produce perceptible vibration on any surrounding property.

Mitigation Measures

The following mitigation measures are proposed to manage the operation noise generated by the school:

- **Hall**:
  - Door should be closed during the evening when amplified music is played within the hall.
  - Noise producing activities on the covered external terrace should be restricted to normal school hours.
- **Mechanical plant:**
  - Further assessment and inclusion of any necessary acoustic treatment is to be undertaken during design development (post-SSDA).
- **PA, school bell positioning and design**:
  - Include more speakers, closer to the noise receiver as a more effective way to provide coverage of external areas while reducing noise spill to neighbouring properties (in contrast to a limited number of loudspeakers).
  - Incorporate highly directional speakers, angled downwards, to reduce noise spill. Speakers with a drop of at least 5dB(A) for mid-frequencies noise for each 10 degrees in the horizontal plane outside of the coverage area should be considered.
- **Waste collection**:
  - Waste removal should time to occur between 7am and 6pm.
- **Community and after hours uses**:
  - After hours use of the COLA and basketball should be limited to 7am – 9pm.
- **Design of windows and facades:**
  - The north, east and south facing windows of the new school building should have a minimum of 10.38mm glass fitted into openable frames to give a minimum Rw of 35.
  - All remaining facades, internally facing, are recommended to have a minimum of 6.38mm glass fitted into openable frames to give a minimum Rw of 31.

5.8.2 Construction Noise Impacts

Assessment

Sources of construction noise expected during the construction stage are as follows:

- Cleaning and remediation of the site and earthworks to level the site as required and excavate for footings and services (excavators, pneumatic hammers)

- Erection of structure (powered hand tools for formwork, concrete pump, vibrators)
- Internal fit out
- Landscaping

Since no below ground/basement levels are proposed, significant excavation and piling will not be required.

The noise assessment considered the following potential construction hours:

- Monday to Friday: 7am – 6pm
- Saturday: 7:30am – 3:30pm
- Sundays or Public Holiday No work.

Unmitigated noise levels at the residential receivers to the north of the site will exceed the highly noise affected criteria, while other surrounding residential receivers will exceed the noise affected criteria.

No significant sources of vibration are expected.

Mitigation Measures

The following recommended mitigation measures will be implemented during construction to limit noise impacts to surrounding receivers.

- Large earthmoving equipment (bulldozers and excavators) should not be operational until 8am.
- Quiet work methods/technologies should be employed:
  - The primary noise generating activity at the site will be the ground-work period. As much as practicable, use of quieter methods should be adopted.
  - Concrete pumps should be located within bounds of the site (rather than on nearby roads at the perimeter of the site) where possible. Given site constraints, concrete pumps may need to be located on the road. Where this is required the concrete pump is to be located on the side of the road closest to site.
  - Materials handling/vehicles:
    - Trucks and bobcats to use a non-tonal reversing beacon (subject to OH&S requirements) to minimise potential disturbance of residential receivers.
    - Avoid careless dropping of construction materials into empty tucks. (i.e. ensure works are placing materials, not throwing them).
    - Trucks, trailers and concrete trucks (if possible) should turn off their engines during idling to reduce noise impacts
- Pneumatic/hydraulic hammering (if required) noise impacts should be addressed via the imposition of respite periods, typically limiting operation to:
  - 9am -12pm, Monday to Friday
  - 3pm – 5pm, Monday to Friday; and
  - 9am to 12pm, Saturday
- Noisy activities (exceeding the noise management levels) should not be carried out after 1pm Saturdays.
- Complaints handling - In the event of complaint, the procedures outlined in **Appendix G** and the applicable construction management plan should be adopted.
- A detailed noise management plan should be developed by the main contractor that describes in detail the construction phases, programme, processes and equipment used, noise impact assessment and proposed mitigation and management.
- Site induction:
  - A copy of the noise management plan is to be available to contractors. The location of the noise Management plan should be advised in any site induction.

- Site induction should also detail the site contact is to be notified in the event of a noise complaint.

5.9 Biodiversity and Tree Removal

5.9.1 Tree Removal

Assessment

Moore Trees has prepared an Arboricultural Development Impact Assessment Report to assess the proposed removal of trees and their significance (**Appendix CC**). A total of 46 trees are located within the SSDA site. The proposed works will require the removal of 27 trees. In general, Darlington Public School has a healthy tree population in terms of quantity of trees and tree health. There are no trees that were assessed as being at risk of imminent failure, however some minor scattered dead wood was noted.

In summary:

- 19 trees are proposed to be retained and are numbered as: 6, 12, 13, 14, 15, 18, 56-68.
- 27 trees are within the building footprint and are to be removed. They are numbered as: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 16, 17, 19, 26-32, 47, 48, 50, 52, 53, 54, 55.

Mitigation Measures

The following mitigation measures are proposed to protect remaining trees on site:

- Trees 6, 18 and 12-15 will require tree protection fencing. The specifications for a TPZ are in Section 5.4 of **Appendix CC**.
- Trees 56-68 will require trunk protection as specified in Section 5.4 of **Appendix CC**. This trunk protection will be required due to the proximity of heavy equipment operating near these trees.
- Tree protection measures must be undertaken in accordance with the *Australian Standard for the Protection of Trees on Development Sites (AS 4970 2009).*

5.9.2 Biodiversity

A Biodiversity Development Assessment Report has been prepared by has been prepared by Eco Logical Australia to assess the biodiversity values and species habitat present on the site (**Appendix U**). A summary of the assessment and mitigation measures are outlined below.

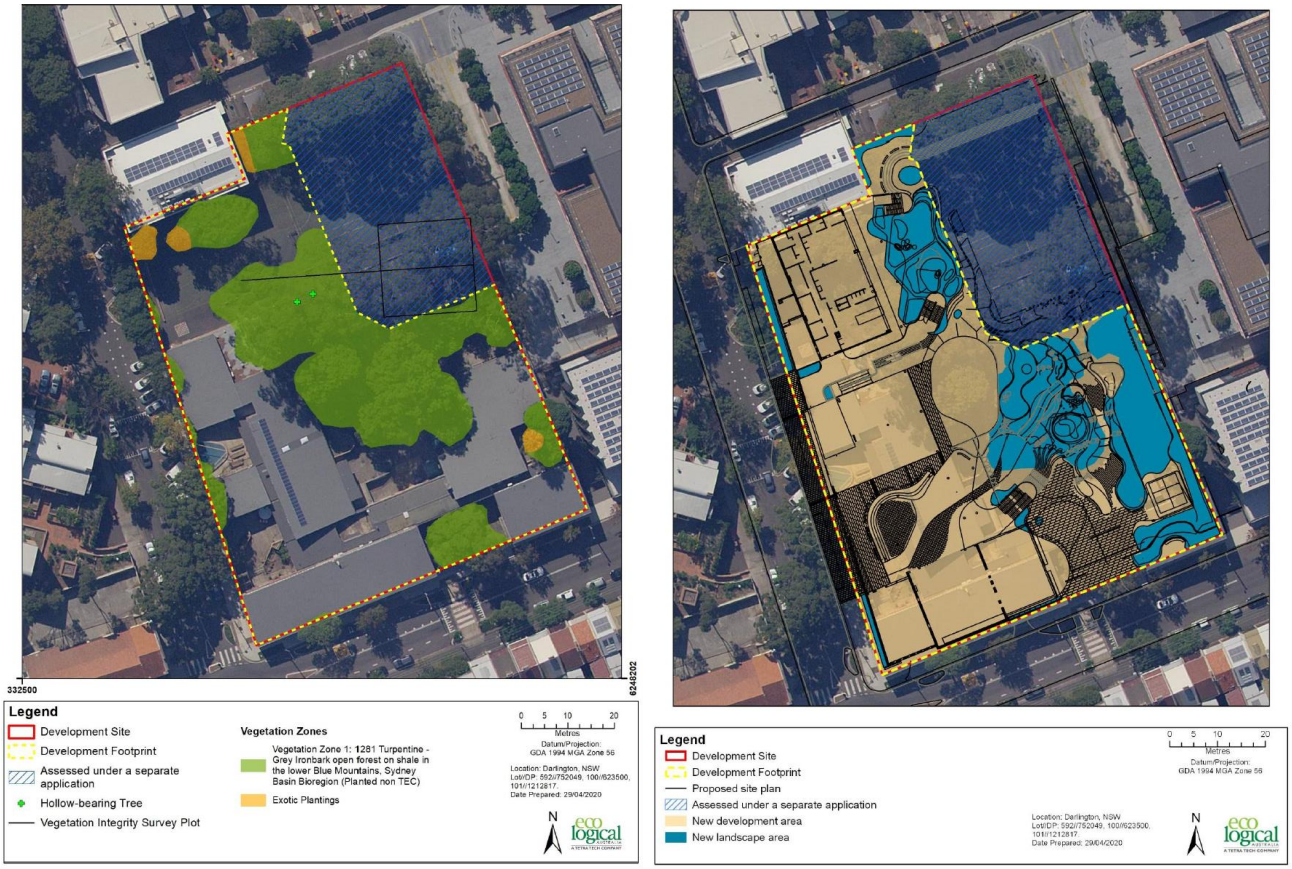

Figure 37 **Existing Vegetation Zones and Hollow Bearing Trees (left), Proposed Development Footprint (right)**
Source: *Eco Logical*

Assessment

The proposal will result in the removal of 0.16 hectares of planted PCT 1281 vegetation (Turpentine - Grey Ironbark open forest on shale). Two Biodiversity Assessment Method ecosystem credits are required to offset the removal of vegetation. **Figure 37** shows the extent of biodiversity at the site and the proposed development footprint.

One Matter of National Environmental Significance (MNES) was identified as having potential to be adversely affected by the proposed works. Pteropus poliocephalus (Grey-headed Flying-fox) is listed as Vulnerable under the EPBC Act and it is considered that this species is likely to use some of the development site for foraging. Assessment of the Commonwealth Significant Impact Criteria was undertaken for the Grey-headed Flying-fox and concluded that the project would not have a significant impact on this species. Significant Impact Criteria was also conducted for two planted threatened species, Eucalyptus nicholii and E. scoparia and determined that the proposed works are unlikely to have a significant impact upon these planted species.

Mitigation Measures

Numerous mitigation measures are proposed within Section 2.2.5 of the BDAR at **Appendix U** which include (but are not limited to) the following:

- Supervision by a qualified ecologist / licensed wildlife handler during removal of trees with identified habitats, in accordance with best practice methods.
- Pre-clearance survey of trees to be removed and identification/location of habitat trees by a suitably qualified ecologist. Trees identified for retention should be clearly delineated as a 'No Go' zone with high visibility bunting. Any tree removal is to be undertaken by a suitably qualified and insured arborist.
- Install tree protection fencing around trees proposed for retention.
- Priority weeds present within the development site listed under the *NSW Biosecurity Act 2015* for the Greater Sydney Region will be removed.

- Construction staff to be briefed prior to work commencing to be made aware of sensitive biodiversity values present and environmental procedures.

5.10 Construction Management

A Preliminary Environment, Construction and Site Management Plan (CMP) has been prepared by Mace Group and is provided at **Appendix K**. The CMP outlines the key principles and considerations for the management of the construction program and will be for the basis of the detailed site Environment Management Plan to be prepared by the contractor; these are outlined below.

5.10.1 Environmental Management

The contractor will be responsible for managing and mitigating the following items (refer to **Appendix K** for further detail regarding requirements of the contractor):

- **Consultation**: Setting up fortnightly construction meetings with school staff, DoE and Mace, monthly reporting to the principal and attendance at monthly meetings with the Project Reference Group, with applications to be made for noisy or disruptive works for approval by Mace and the school. Complaints are to be documented and addressed through a complaints management system.
- **Noise and Vibration**: The main contractor is required to monitor noise on site to ensure compliance with the relevant criteria is met. The contractor should incorporate the recommendations of the Acoustic Assessment provided at **Appendix G** in their detailed Noise Management Plan. Noisy or disruptive works need to be approved by the school and Mace prior to being undertaken.
- **Dust**: Mitigation of dust will be managed and controlled by the main contractor, who will assess the need for measures to prevent tracking of soil onto roadways outside of the site and provide if deemed necessary. Activities with potential to create dust omissions are to be controlled and suitable equipment is utilised to mitigate the release of dust.
- **Erosion and Sediment Control**: To be managed and maintained by the contractor in accordance with the provided Erosion and Sediment Control Plan provided at **Appendix T**.

5.10.2 Waste and Hazardous Materials Management

A Construction Waste Management Plan prepared by JBS&G is provided at **Appendix V**, which identifies likely waste streams including the possible volume of each stream during construction of the proposal. Generally, waste will be segregated on site and transported to a recycling facility.

A detailed Construction Waste Management plan will be developed by the future site contractor as part of the CEMP for the school. The contractor will be required to achieve compliance with EPA Guidelines.

An Asbestos Management Plan and the relevant statutory legislations will be consulted with nominated project stakeholders if any hazardous material is detected during construction activities and requires immediate removal and treatment.

5.10.3 Traffic Management

Preliminary traffic control measures are proposed at **Appendix K**, which will be subject to finalisation by the main contractor during preparation of the detailed Construction Traffic Management Plan. A summary of the proposed arrangements is provided as follows:

- **Site access**: Stage 1 site access will be off Golden Grove Street in the northern portion of the site. For Stage 2 works when the northern portion of the new school building is complete, access will be from Abercrombie Street in the south of the site. A single way construction access route will be implemented from City Road down Golden Grove Street to access the site. Leaving the site will be done via Abercrombie Street, Golden Grove Street to the north then along King Street in a south-western direction. The proposed access arrangement is shown at **Figure 38**.
- **Parking**: No parking will be provided for construction personnel. Vehicle owners will be responsible for appropriate parking.

- **School drop off and pick up**: To function as per the current arrangements along Golden Grove Street or Abercrombie Street.

Figure 38 Construction Traffic Site Access

Source: *Mace*

5.11 Stormwater, Drainage, Flooding and Sediment and Erosion Control

A Civil Design Report has been prepared by Meinhardt/Bonacci and is provided at **Appendix T**. The report includes an assessment and description of the proposed stormwater, drainage, flooding and sediment/erosion control measures to be implemented in the proposed development.

5.11.1 Stormwater and Drainage

A two-tank OSD tank system is proposed to reduce stormwater discharge to the existing network. A 70m^3 tank discharges to Golden Grove Street while a 120m^3 tank discharges to Abercrombie Street. The discharge during a 20 year ARI to Golden Grove Street is 30L/s (existing condition is 60L/s) and 25L/s to Abercrombie Street (compliant with the maximum rate prescribed by the City of Sydney). The combined OSD tanks meet the Sydney Water requirement to provide 124m^3 total on-site storage and achieves the permissible site discharge rate of 248L/s. During Stage 1 of construction, the existing stormwater network will accommodate post-development flows, prior to the construction of the OSDs and final stormwater network.

5.11.2 Flooding

The site is located in the Blackwattle Bay Catchment. A very minor portion of the site is exposed to low hazard flooding during the 100 year ARI, near the corner of Golden Grove Street and Abercrombie Street. For the PMF event, the same portion of the site adjacent to the proposed main entrance is affected. The resulting batch of water is caused by an existing trapped low point. The proposed development will raise the ground level near the main entrance to RL 34.3 (above the existing low point of RL 33.05) and eliminate the potential for flooding during the PMF event. An overland flow path is provided to Abercrombie Street for the main school entrance to avoid any trapped low point.

5.11.3 Sediment and Erosion Control

A sediment and erosion control plan has been prepared and recommends the below mitigation measures during construction.

Mitigation Measures

- A sediment fence/hoarding to be provided around the site.
- Catch drain (or diversion bund) diverting external catchment away from site.
- Temporary access to site with shaker pad.
- An indicative stockpile area with sediment fence around it during construction. The stockpile must be located out of water flow paths (and be protected by earth banks/drains as required).
- Geotextile inlet pit filters or sandbags to be placed around existing stormwater pits.
- Water cart to spray excavated surfaces to reduce dust pollution.
- All disturbed areas are to be stabilised within 14 working days of the completion of earthworks. All disturbed areas are to be protected so that the land is permanently stabilised within six months.
- Sediment removed from any sediment trapping device shall be relocated where further pollution to downslope lands and waterways cannot occur.
- Water shall be prevented from entering the permanent drainage system unless it is sediment free. Drainage pits are to be protected in accordance with the final approved Sediment and Erosion Control Plan.
- Trapped sediment shall be removed immediately from areas subject to runoff or concentrated flow.
- Trapped sediment shall be removed where the capacity of sedimentation trapping devices fall below 60%.
- Revegetation schemes are to be adhered to and any grass coverings are kept healthy, including watering and mowing.

5.12 Ecologically Sustainable Development

The environmental performance of the development has been assessed by using clause 7(4) of Schedule 2 of the EP&A Regulations and the EIS is accompanied by an ESD Statement prepared by Integral (**Appendix X**). The initiatives and targets relate to the following aspects of the proposed development:

- ESD initiatives outlined by Integral align with the national best practice sustainable building principles to improve environmental performance and reduce ecological impact.
- The proposal will align with the Green Building Council of Australia's – 'Green Star' framework noting that this is considered the 'national best practice building principle,' by achieving an equivalency to 4 Star Green Star Rating.
- The design measures as discussed in detail by Integral in the ESD Statement demonstrate the way in which ESD is entrenched into the design proposal. Through the incorporation of these ESD measures, the proposal will be designed in accordance with recognised best practice principles, which are capable of being applied throughout the design and ongoing operation phases of the development.

Furthermore, the proposed development is consistent with the four accepted principles of ESD. The Regulation lists four principles of ecologically sustainable development to be considered in assessing a project. They are:

- The precautionary principle;
- Intergenerational equity;
- Conservation of biological diversity and ecological integrity; and
- Improved valuation and pricing of environmental resources.

An analysis of these principles follows.

Precautionary Principle

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

This EIS has not identified any serious threat of irreversible damage to the environment and therefore the precautionary principle is not relevant to the proposal.

Intergenerational Equity

Inter-generational equity is concerned with ensuring that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The proposal has been designed to benefit both the existing and future generations by:

- Implementing safeguards and management measures to protect environmental values
- Facilitating education opportunities including, additional future school capacity, in close proximity to homes and public transport
- Improving the social infrastructure that will improve educational infrastructure outcomes.

The proposal has integrated short and long-term social, financial and environmental considerations so that any foreseeable impacts are not left to be addressed by future generations. Issues with potential long-term implications such as waste disposal would be avoided and/or minimised through construction planning and the application of safeguards and management measures described in this EIS and the appended technical reports.

Conservation of biological diversity and ecological integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration.

The BDAR provided at **Appendix U** outlines the measures taken to avoid, minimise and mitigate impacts to the vegetation and species habitat present within the development site and methodologies to minimise impacts during construction a of the development. A small amount of vegetation (0.16ha) within the development site will be removed. The BAMC calculated that a total of 2 ecosystem credits are required to offset the unavoidable impacts on the development site.

Improved valuation, pricing and incentive mechanisms

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things. Mitigation measures for avoiding, reusing, recycling and managing waste during construction and operation would be implemented to ensure resources are used responsibly in the first instance.

Additional measures will be implemented to ensure no environmental resources in the locality are adversely impacted during the construction or operational phases.

5.13 Other Assessment Issues

An assessment of the other impacts of the development has been undertaken by the relevant specialist consultants and are appended to this EIS. A brief description of each other assessment issue is provided in **Table 13** below.

Table 13 Other Assessment Issues

Issue	Consultant	Summary	Reference
Contamination	Douglas Partners	Results of the preliminary and detailed site investigations performed by Douglas Partners confirmed TRH, PAH and lead impacts to fill across the site. While most of the site is sealed, there are some unsealed areas in the central eastern portion of the site that provide a potential pathway to contamination. A Remediation Action Plan has been prepared and site remediation will be undertaken in accordance with the preferred remediation strategy, which comprises: • On-site management of contaminated soils (capping and containment) to limit ingestion or dermal contact pathways • Excavation and off-site disposal of any materials that are considered not suitable to remain on-site.	**Appendix P** **Appendix Q** **Appendix R**

Issue	Consultant	Summary	Reference
		Through the implementation of mitigation measures the site is capable of being made suitable for the proposed use of the site as a school and pre-school.	
Operational Waste	JBS&G	A conservative estimate of the school's waste and recycling generation is approximately 1,176L of waste per week and 1,576L of recycling per week. Up to four 660L mobile garbage bins will be required to adequately store this waste for collection once per week. These bins are provided in a single waste storage area in the north of the site adjacent to Golden Grove Street. Waste will be transported from small localised bins to the waste storage room as daily/as required. Waste will be collected from the Golden Grove Street kerb, with no trucks being required to enter the site. The waste pickup is accommodated through the proposed signposting as a loading zone outside of school drop-off/pick up hours.	**Appendix W**
Accessibility	Philip Chun	The proposed design has been assessed as being generally in accordance with and capable of complying with the following the relevant requirements of the National Construction Code (NCC/BCA), Volume 1 – 2019 inclusive of Parts D, E and F as it relates to accessibility, Disability (Access to Premises - Buildings) Standards 2010 (Amendment No. 1) and Applicable Australian Standards for access and mobility (i.e. AS 1428 series) as referenced in the NCC and the Premises Standards.	**Appendix AA**
BCA compliance	Philip Chun	The proposed development will be capable of achieving compliance with the Building Code of Australia 2019, subject to normal design development and re assessment required at the next stage of documentation (between the SSDA and the issue of the relevant Crown Certificate).	**Appendix BB**
Hazardous Materials	Douglas Partners	The HAZMAT survey identified Asbestos-containing material, Synthetic Mineral Fibre, Polychlorinated Biphenyls, lead paint, potential lead dust and ozone depleting substances across the site. A Hazardous Materials Management Plan and Asbestos Management Plan will be developed prior to the commencement of any demolition/construction works on site, in accordance with the waste management plans appended to this EIS.	**Appendix S**
Geotechnical	Douglas Partners	The Geotechnical Assessment identified the site as Class P due to the presence of uncontrolled filling. Advice and recommendations are provided in the report and have guided the structural and civil design team, relating to: • Site preparation • Excavation • Reuse of excavated materials • Batter slopes • Retaining walls • Footings • Subgrade parameters	**Appendix Y**
Structural	Meinhardt/Bonacci	The design of the building's structural elements has been undertaken and verified to be in accordance with: • AS/NZS 1170.0/2002 – Part 0: Structural design actions • AS/NZS 1170.1/2002 – Part 1: Permanent, imposed and other actions • AS/NZS 1170.2/2011 – Part 2: Wind actions • AS/NZS 1170.4/2007– Part 4: Earthquake loads • AS3600 – 2018: Concrete structures • AS4100 – 1998: Steel structures	**Appendix Z**

Issue	Consultant	Summary	Reference
		• AS1720- 2010: Timber Structures • AS3700 – 2018: Masonry Structures • AS2159 – 1995: Piling • AS/NZS4600 – 2001: Cold-formed steel structures • AS/NZS3828 – Guidelines for the erection of building steelwork	
Light Spill	Stantec	The proposed lighting strategy has been assessed to comply with the DoE Education Facility Guidelines and external lighting design in accordance with AS4284:1997. Appropriate levels of obtrusive light have been demonstrated.	**Appendix B**
Bushfire	-	The site is not located in or near any bushfire prone land.	-

5.14 Site Suitability

The site is suitable for the proposed development as outlined below:

- It will allow for the continuation of educational uses on the site.
- It is consistent with the land zoning (SP2 Education Establishment) and is a commensurate use to the surrounding area, which includes the University of Sydney Darlington Campus.
- The environmental impacts associated with the redevelopment can be appropriately mitigated as described throughout **Section 5.0.**
- The school site is located in a highly accessible inner-city location. The redevelopment will leverage off existing transport connections in proximity to the school.

5.15 Public Interest

The proposed redevelopment of Darlington Public School is in the public interest since it:

- Will increase the existing school capacity to respond to the immediate and future demand for primary school education places.
- Will provide improved education facilities including new home base units and access to high quality, extensive outdoor play areas.
- Provides for further engagement with the community through use of the school facilities for community use.
- Will generate 127 jobs during its construction phase and 29 jobs during future operation.

5.16 Economic Impacts

The proposed redevelopment of Darlington Public School will provide the following positive economic impacts:

- The creation of temporary job opportunities in manufacturing, construction and construction management.
- The creation of ongoing jobs in teaching and administration.
- Providing additional educational capacity in inner Sydney that will contribute to higher rates of education and training across the region, strengthening the local and regional economy.

6.0 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for the Darlington Public School Redevelopment has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

In accordance with the SEARs, the ERA addresses the following significant risk issues:

- The adequacy of baseline data
- The potential cumulative impacts arising from other developments in the vicinity of the Site
- Measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Figure 39 indicates the significance of environmental impacts and assigns a value between 1 and 10 based on:

- The receiving environment
- The level of understanding of the type and extent of impacts
- The likely community response to the environmental consequence of the project

The manageability of environmental impact is assigned a value between 1 and 5 based on:

- The complexity of mitigation measures
- The known level of performance of the safeguards proposed
- The opportunity for adaptive management

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Significance of impact	Manageability of impact				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 – Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Figure 39 Risk Assessment Matrix

				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
Key: C – Construction O – Operation						
Noise and Vibration	C + O	• Increase in noise and vibration levels during construction activities • Increase in noise levels during the operation of the school	• Implementation of Construction Noise and Vibration Measures which considers the construction methodology and details specific mitigation measures in accordance with the DECCW Interim Construction Noise Guideline. • Appropriate mitigation measures to be implemented to ensure vibration levels will not compromise human comfort or result in building damage. • Appropriate sound minimisation measures to be incorporated within the plant and mechanical areas. • PA and school bell system will be designed to limit impacts to adjoining property.	C = 3 O = 1	C = 2 O = 2	C = 5 (low/medium) O = 3 (low)
Traffic and Parking	C + O	• Increase in construction traffic on local roads • Increase in traffic and parking on local roads during operation	• A Preliminary Construction Traffic Management Plan has been prepared detailing measures to minimise any adverse impacts arising from construction traffic. • A Green Travel Plan will encourage the use of active transport during school operations. The existing road network has capacity to support an increase in traffic associated with the proposed development.	C = 3 O = 2	C = 2 O = 1	C = 5 (low/medium) O = 3 (low)
Heritage Impacts	C + O	• Impact on heritage listed buildings in the vicinity of the site. • Impact on Aboriginal Cultural Heritage/social significance during construction	• The development will be carried out in accordance with the recommendations contained in the Heritage Impact Statement. • The development will be carried out in accordance with the recommendations contained in the Aboriginal Cultural Heritage Assessment Report.	C = 2 O = 2	C = 2 O = 1	C = 4 (low/medium) O = 3 (low)
Waste	C + O	• Increased waste generation during construction. • Increase waste generation during operation.	• A detailed Construction Waste Management Plan will be developed to manage the generation and disposal of construction waste, in accordance with the principles outlined in the Waste Management Plan appended to this EIS. • The appropriate infrastructure has been incorporated into the development to accommodate the volumes of waste that will be generated during the operation of the school.	C = 3 O = 1	C = 2 O = 2	C = 5 (low/medium) O = 3 (low)

				Risk Assessment		
Amenity of Adjoining Properties	C + O	• Potential privacy impacts on adjoining properties. • Potential overshadowing of adjoining properties.	• The building has been sited and designed to limit privacy and overlooking of the adjoining properties to the east and north. • The sawtooth roof reduces overshadowing compared to a straight roof.	C = 3 O = 2	C = 2 O = 1	C = 5 (low/medium) O = 3 (low)
Air and Water Quality	C	• Potential for reduced air and water quality during construction	• A detailed Construction Environmental Management Plan will be developed once a contractor has been appointed to implement measures to ensure that air and water quality are maintained.	C = 2	C = 2	C = 2 (low/medium)

7.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 14** below. These measures have been derived from the previous assessment in **Section 5.0** and those detailed in appended consultants' reports.

Table 14 Mitigation Measures

Mitigation Measures
Transport • The proposal will incorporate the recommended measures in the Traffic and Transport Assessment prepared by TTPA provided at **Appendix L**. • The proposal will incorporate the recommended measures in the Green Travel Plan prepared by TTPA provided at **Appendix L**.
Built Heritage • The proposed development will be undertaken in accordance with the recommendations made within the Heritage Impacts Statement prepared by GML and provided at **Appendix M**.
Aboriginal Cultural Heritage • The proposed development will be undertaken in accordance with the recommendations made within the ACHAR prepared by GML and provided at **Appendix N**.
Social Impacts • Monitoring and management of impacts in collaboration with key stakeholders, to effectively address them if/ or when they arise. • Mitigation of potential construction impacts through compliance with a comprehensive Construction Management Plan
Tree Protection • The tree protection measures outlined in the Aboricultural Development Assessment Report prepared by Moore Trees and provided at **Appendix CC** will be adopted in the proposed development.
Biodiversity • The proposed development will be undertaken in accordance with the mitigation measures detailed in Section 2.2.5 of the BDAR at **Appendix U**.
Construction Impacts • A detailed Construction and Environmental Management Plan will be prepared by the main contractor prior to commencing works. • The detailed Construction and Environmental Management Plan will incorporate the mitigation measures recommended in the Preliminary Construction Management Plan (**Appendix K**), the Construction Traffic Management Plan (**Appendix L**), the Construction Waste Management Plan (**Appendix V**) and the Sediment and Erosion Control Plan (**Appendix T**).
Ecologically Sustainable Development • The detailed design of the development is to incorporate the ESD principles and initiatives set out in the ESD Report prepared by Integral at **Appendix X**.
Contamination • The proposed development will be undertaken in accordance with the recommended mitigation measures outlined in the Remediation Action Plan prepared by Douglas Partners at **Appendix R**.
Operational Waste • Operational Waste will be managed in accordance with the recommendations in the Operational Waste Management Plan prepared by JBS&G provided at **Appendix W**.

8.0 Conclusion and Justification

The Environmental Impact Statement has been prepared to consider the environmental, social and economic impacts of the proposed redevelopment of Darlington Public School. The EIS has addressed the issues outlined in the SEARs (**Appendix C**) and accords with Schedule 2 of the EP&A Regulation with regards to consideration of relevant environmental planning instruments, built form, social and environmental impacts including traffic, heritage and construction impacts.

Having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- The assessment of this proposal has demonstrated that the development will not generate any environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site.
- The development will provide a significant new piece of social and educational infrastructure, providing a redeveloped school with permanent teaching spaces to accommodate 437 students and 60 preschool children. The provision of an improved teaching and education facility will support and strengthen the availability of education facilities in the region.
- The area and shape of the site allows for the provision of new teaching and education facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on surrounding uses.
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the EP&A Regulation 2000.
- The proposed development is anticipated to create 29 full-time positions at the school. This is anticipated to have additional social benefits for the region in terms of providing additional employment in a growing locality.
- Given the increase in housing development in the region, the proposed redevelopment is anticipated to have positive social outcomes in ensuring that local residents have access to high quality educational facilities.
- The development will not have a significant impact on any threatened flora or fauna species.
- Traffic and parking impacts associated with the proposed development can be appropriately managed and active transport will be promoted and encouraged.

Given the above it is considered that the SSD application has merit and can be supported by the Department and the Minister for Planning and Public Spaces.