Environmental Impact Statement

New Primary School at Googong
(SSD-10326042)

Prepared on behalf of NSW Department of Education

June 2021

mecone

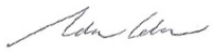
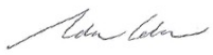
Project Director

Adam Coburn

Project Planners

Jack Rixon

Addison Boykin

Revision	Revision Date	Status	Authorised	
			Name	Signature
A	31 May 2021	Draft	Adam Coburn	
B	9 June 2021	Final	Adam Coburn	

* This document is for discussion purposes only unless signed and dated by the persons identified. This document has been reviewed by the Project Director.

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Statement of validity

Applicant details

Name: Department of Education c/- Mecone Pty Ltd NSW

Address: Level 2, 3 Horwood Place, Parramatta NSW 2150

Site and proposal details

Site address: Aprasia Avenue, Googong

Legal description: Lot 3 DP1179941

Proposed development: Establishment of a new primary school at Aprasia Avenue, Googong

Prepared by

Name: Adam Coburn

Qualifications: Bachelor of Environmental Planning and Master of Planning

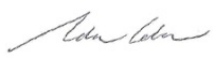
Address: Mecone NSW Pty Ltd, Level 2, 3 Horwood Place, Parramatta NSW 2150

Certification

I certify that I have reviewed the content of this EIS and to the best of my knowledge:

- It is in accordance with Part 4 of the Environmental Planning and Assessment Act 1979 and 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: Adam Coburn

Date: 9 June 2021

Glossary and abbreviations

Term/acronym	Description
AEP	Annual Exceedance Probability
AS	Australian Standards
BCA	Building Code of Australia
BC Act	*Biodiversity Conservation Act 2016*
CEMP	Construction Environmental Management Plan
COLA	Covered Outdoor learning Area
Council	Queanbeyan-Palerang Regional Council
CPTED	Crime Prevention through Environmental Design
DA	Development Application
DCP	Development Control Plan
DoE	Department of Education
DPIE	Department of Planning Industry and Environment
EFSG	Educational Facilities Standards & Guidelines
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
ESD	Ecologically Sustainable Development
GFA	Gross Floor Area
Homebase	A primary school classroom
HVAC	Heating, Ventilation and Air Conditioning system
INP	Industrial Noise Policy
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan

Term/acronym	Description
LGA	Local Government Area
NCC	National Construction Code
Proposal	Establishment of a new primary school in Googong
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policies
Site	Lot 3 DP1179941
SSD	State Significant Development
WSUD	Water Sensitive Urban Design

Executive Summary

Purpose of report

This Environmental Impact Statement (EIS) has been prepared on behalf of the NSW Department of Education (DoE) to accompany State Significant Development (SSD) application for a new primary school on the site at Aprasia Avenue, Googong. This EIS is submitted to the Minister for Planning pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act).

The proposal is for a new school and is therefore classified as State significant development (SSD) in accordance with Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*.

The EIS addresses the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning, Industry and Environment (DPIE) on 20 November 2020.

Overview of the proposal

The proposed development is for construction and operation of a new primary school in Googong that will accommodate up to 700 students. The proposed development is a Core 35 school and includes:

- A collection of 1-2 storey buildings containing 30 home base units, 3 special education learning units, canteen, hall, library and administrative facilities.
- On-site carpark with 60 spaces and on-street kiss-and-ride facilities.
- Outdoor sports court and play area.
- Integrated landscaping, fencing and signage.

Objectives of the proposal

The key objectives of the proposal are to:

- Meet identified demand for a primary school in the area.
- Deliver on the public announcement for a primary school in Googong.
- Provide a high quality facility that meets the needs of students and teachers and optimises educational outcomes.

Project background

The proposed primary school in Googong is identified as one of the 40 new and upgraded schools committed to for planning and delivery in 2019-20 by the NSW Government. The 2019 NSW Budget announcement included the investment of $6.7B over four years to deliver more than 190 new and upgraded schools to support communities throughout the state.

The Queanbeyan Primary School Community Group (SCG) is in Queanbeyan-Palerang Regional Council local government area (LGA), which lies along the eastern segment of the Australian Capital Territory (ACT) border. There are six existing public schools and two private primary schools within the SCG.

Demand for schooling within the SCG is anticipated to experience additional rapid growth due to significant residential developments in the area as well as ACT policy changes related to reducing cross-border student enrolments.

Given the forecasted increase in demand and the fact that Googong is geographically separated from other schools within the SCG (8.5 kilometres from the nearest public school), the existing capacity is insufficient to meet the needs of the community. As part of the NSW Government's 2019 budget, a ministerial announcement was made to build a new public school for Googong.

Alternatives

DoE considered a number of alternatives to the proposal including:

A. Do nothing.

B. Undertake boundary changes across schools within the SCG to accommodate for Googong demand.

C. Construct new school at Googong (preferred option).

Option A was discarded as the school would not address the additional demand for services. Option B was also discarded because of concerns it would not be an effective response to service need and because it would not deliver on the promise of a new school at Googong. Option C was identified as the preferred option as it would meet student demand and delivery on the promise of a new school in Googong.

Consultation

Pre-lodgement consultation was conducted with various stakeholders including QPRC officers; State agencies including Government Architect NSW, Transport for NSW/Roads and Maritime Services; the local community; and local Aboriginal stakeholders. Comments provided by these stakeholders have been instrumental in the preparation of the EIS. Section 6 of the EIS describes the consultation activities undertaken.

Planning context

The EIS has been prepared in accordance with the relevant legislative requirements of the EP&A Act and *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). Section 5 of the EIS considers all applicable legislation in detail.

Queanbeyan Local Environmental Plan 2012 (the LEP) applies to the site. Under the LEP the site is zoned R1 General Residential. Educational establishments are prohibited in the R1 zone. However, Clause 35(1) of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (Education SEPP)

states that development for the purpose of a school may be carried out by any person with development consent on land in a prescribed zone. Clause 33 of the Education SEPP identifies the R1 zone as a prescribed zone, and therefore the proposed school is permitted with consent.

Environmental impacts and mitigation measures

Sections 7 and 8 of the EIS provide an assessment of the environmental impacts of the proposal in accordance with the SEARs. The key environmental matters considered include:

- Built form and urban design.
- Environmental amenity.
- Transport and accessibility.
- Sustainability.
- Aboriginal and European heritage.
- Noise and vibration.
- Soil and water.
- Contamination.
- Drainage.
- Aviation.

An Environmental Risk Assessment has been carried out in section 9 of the EIS. The assessment has found that the proposal will result in no unacceptable environmental impacts, subject to implementation of mitigation measures.

A range of mitigation measures have been recommended based upon the input of specialists. Section 10 of the EIS sets out a summary of the mitigation measures.

Conclusion

The proposal has been designed to avoid environmental impacts where possible. The proposal will add approximately 362 trees to the existing cleared site, will have minor and acceptable traffic impacts, and will provide for a low scale built form compatible with the streetscape and local character. The proposal also demonstrates consistency with local planning for the area, which identifies the site for school purposes.

The EIS fulfils the requirements of the EP&A Act and EP&A Regulation, addresses all relevant matters for consideration prescribed by the SEARs and demonstrates that the potential impacts of the proposal can be satisfactorily managed or mitigated. Given the evident benefits of the proposal and lack of significant environmental impacts, it is recommended that consent be granted to the application.

1 Introduction

This Environmental Impact Statement (EIS) has been prepared by Mecone NSW Pty Ltd on behalf of the NSW Department of Education (DoE) to support an application for State Significant Development (SSD).

DoE is seeking approval for a new primary school at Aprasia Avenue, Googong.

The proposal is for a new school and is therefore classified as SSD in accordance with Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP).

The EIS has been prepared in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) and the Secretary's Environmental Assessment Requirements (SEARs) issued on 8 December 2020.

1.1 Project overview

The proposed development is for construction and operation of a new primary school in Googong that will accommodate up to 700 students. The proposed development is a Core 35 school and includes:

- A collection of 1-2 storey buildings containing 30 home base units, 3 special education learning units, canteen, hall, library and administrative facilities.
- On-site carpark with 60 spaces and on-street kiss-and-ride facilities.
- Outdoor sports court and play area.
- Integrated landscaping, fencing and signage.

1.2 Proposal objectives

The key objectives of the proposal are to:

- Meet identified demand for a primary school in the area.
- Deliver on the public announcement for a primary school in Googong.
- Provide a high quality facility that meets the needs of students and teachers and optimises educational outcomes.

1.3 Project background

The proposed primary school in Googong is identified as one of the 40 new and upgraded schools committed to for planning and delivery in 2019-20 by the NSW Government. The 2019 NSW Budget announcement included the investment of $6.7B over four years to deliver more than 190 new and upgraded schools to support communities throughout the state.

The Queanbeyan Primary School Community Group (SCG) is in Queanbeyan-Palerang Regional Council local government area (LGA), which lies along the eastern segment of the Australian Capital Territory (ACT) border. There are six existing public schools and two private primary schools within the SCG.

Demand for schooling within the SCG is anticipated to experience additional rapid growth due to significant residential developments in the area as well as ACT policy changes related to reducing cross-border student enrolments.

Given the forecasted increase in demand and the fact that Googong is geographically separated from other schools within the SCG (8.5 kilometres from the nearest public school), the existing capacity is insufficient to meet the needs of the community. As part of the NSW Government's 2019 budget, a ministerial announcement was made to build a new public school for Googong.

1.4 Alternatives considered

DoE undertook a structured approach in assessing options to meet the identified service need. The options considered are outlined in Table 1-1.

Table 1-1 Options considered

Option	Description	Analysis
A	Do nothing. Excess student demand is distributed across existing facilities.	This option was discarded because it would fail to meet excess demand.
B	Undertake boundary changes across schools within the SCG to accommodate for Googong demand.	It was determined that this option would not be an effective response to service need. Due to the project population increases from the additional dwellings within the area and the Act enrolment policy changes, the current infrastructure does not support the foreseen capacity increase.
C	Construct new school at Googong (preferred option).	This option was chosen because it meets excess demand and delivers on the promise of a new primary school in Googong.

1.5 SEARs

The project SEARs were issued on 20 November 2020. A copy of the SEARs is provided at **Appendix 24**. The table below identifies where the SEARs are addressed within the EIS.

Table 1-2 Project SEARs

SEAR	Location in EIS
General requirements	
The Environmental Impact Statement (EIS) must be prepared in accordance with and meet the minimum requirements of clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000 (the Regulation).	Throughout EIS
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 9
In addition, the EIS must include: • an executive summary	Executive summary (front of report)
• a complete description of the development, including: o the need for the development o justification for the development o suitability of the site o alternatives considered o likely interactions between the development and existing, approved and proposed operations in the vicinity of the site o a description of any proposed building works o a description of existing and proposed operations, including staff and student numbers, hours of operation, and details of any proposed before/after school care services and/or community use of school facilities o site survey plan, showing existing levels, location and height of existing and adjacent structures/buildings and site boundaries o a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development o plans, elevations and sections of the proposed development o cladding, window and floor details, including external materials o a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process)	Executive summary (front of report) Section 1.3 Section 1.4 Section 3 Appendix 1 Appendix 4

SEAR	Location in EIS
○ plans and details of any advertising/business identification signs to be installed, including size, location and finishes ○ any staging of the development ○ details of construction and decommissioning including timing ○ an estimate of the retained and new jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided.	
• a detailed assessment of the key issues identified below, and any other significant issues identified in the risk assessment, including: ○ a description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions ○ an assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and future developments. The assessment must consider any relevant legislation, policies and guidelines. ○ consideration of the cumulative impacts due to other related development proposed or underway on the site, including development progressed under other assessment pathways and all other developments in the vicinity (completed, underway or proposed). ○ identification of all proposed monitoring or required changes to existing monitoring programs. ○ measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment and triggers for each action. ○ details of alternative measures considered.	Section 7
• a consolidated summary of all the proposed environmental management and monitoring measures, identifying all commitments included in the EIS.	Section 10
• ·the reasons why the development should be approved and a detailed evaluation of the merits of the development, including consequences of not carrying out the development.	Section 11
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.	Submitted separately

SEAR	Location in EIS
Key issues	
The EIS must address the following specific matters: **1. Statutory Context and Strategic Context and Policies** Address the statutory provisions contained in all relevant legislated and draft environmental planning instruments, including but not limited to: • State Environmental Planning Policy (State and 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) • Queanbeyan Local Environmental Plan 2012 Having regard to the relevant environmental planning instruments: • address the permissibility of the development, including the nature and extent of any prohibitions • identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards • adequately demonstrate and document how each of the provisions in the listed instruments are addressed, including reference to necessary technical documents.	Section 5
Address the relevant planning provisions, goals and strategic planning objectives in all relevant planning policies including but not limited to the following: • NSW State Priorities • State Infrastructure Strategy 2018 – 2038 Building the Momentum • Future Transport Strategy 2056 • Crime Prevention through Environmental Design (CPTED) Principles • Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017) • Healthy Urban Development Checklist (NSW Health, 2009) • Draft Greener Places Design Guide (GANSW) • Queanbeyan-Palerang Community Strategic Plan 2018-2028	Section 4

SEAR	Location in EIS
• South East and Tablelands Regional Plan 2036 • Queanbeyan-Palerang Local Strategic Planning Statement 2040 • Googong Development Control Plan 2010	
2. Built Form and Urban Design • Address: o 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 o design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette. o how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development o how good environmental amenity would be provided, including access to natural daylight and ventilation, provision of shade, acoustic separation, access to landscape and outdoor spaces and future flexibility o 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 (GANSW, 2018) o how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	Section 3.3 Section 7.1 Appendix 2
• ·Provide: o a detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development o 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 2 Section 7.2.3 Appendix 2
3. Trees and Landscaping • · Provide: o Where street trees are affected by the proposed development, an aboricultural impact assessment prepared by a Level 5 (Australian Qualifications Framework) Arborist, which details the number, location and condition of trees to	Section 3.4 Section 8.4 Appendix 3 Appendix 9

SEAR	Location in EIS
be removed and retained, includes detailed justification for each tree to be removed o a detailed site-wide landscape strategy, that: - details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage - considers equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation - demonstrates how the proposed development would: • contribute to the long-term landscape setting in respect of the site and the streetscape • mitigate the urban heat island effect and ensure appropriate comfort levels on site • contribute to objectives to increase urban tree canopy cover o a detailed landscape plan prepared by a suitably qualified person. Relevant Policies and Guidelines: • Australian Standard 4970 Protection of trees on development sites • Draft Greener Places Design Guide (GANSW) • Objective 30 of The Greater Sydney Region Plan – A Metropolis of Three Cities • Technical Guidelines for Urban Green Cover in NSW (Office of Environment and Heritage (OEH), 2015)	
4. Environmental Amenity • Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated • Provide: o shadow diagrams o a view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development o an analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes	Section 7.2 Appendix 1 Appendix 2

SEAR	Location in EIS
mitigation management measures, to manage any impacts.	

5. Transport and Accessibility
 	
Provide a transport and accessibility impact assessment, which includes, but is not limited to the following:
 	
• analysis of the existing transport network, to at least the proposed enrolment boundary, including:
  o road hierarchy
  o pedestrian, cycle and public transport infrastructure
  o details of current daily and peak hour vehicle movements based on traffic surveys and / or existing traffic studies relevant to the locality
  o existing transport operation for 1hour before and after proposed bell times such as span of service, frequency for public transport and school buses, pedestrian phasing for signals
  o existing performance levels of nearby intersections utilising appropriate traffic modelling methods (such as SIDRA network modelling).
  o Existing pedestrian and vehicular access to and from the site.
• details of the proposed development, including:
  o a map of the proposed access which identifies public roads, bus routes, footpaths and cycleways
  o pedestrian site access and vehicular access arrangements, including the number and design of access points to and from the site.
  o Vehicular access arrangements, including for service and emergency vehicles and loading/unloading, including swept path analysis demonstrating the largest design vehicle entering and leaving the site and moving in each direction through intersections along the proposed transport routes.
  o car and motorcycle parking, bicycle parking and end-of-trip facilities
  o drop-off / pick-zone(s) and arrival/departure bus bay(s)
  o pedestrian, public transport or road infrastructure improvements or safety measures.
• analysis of the impacts due to the operation of the proposed development, including:
	Section 7.3
	
	Appendix 5a
	
	Appendix 5b

SEAR	Location in EIS
○ proposed modal split for all users of the development including vehicle, bicycle riders, public transport, school buses and other sustainable travel modes. ○ estimated total daily and peak hour vehicular trip generation. ○ a clear explanation and justification of the: - assumed growth rate applied - volume and distribution of proposed trips to be generated - type and frequency of design vehicles accessing the site ○ details of performance of nearby intersections and level crossings with the additional traffic generated by the development both at the commencement of operation and in a 10-year time period (using SIDRA network modelling). ○ cumulative traffic impacts from any surrounding approved development(s). ○ adequacy of pedestrian, bicycle and public transport infrastructure and operations to accommodate the development. ○ adequacy of car and motorcycle parking and bicycle parking provisions when assessed against the relevant car / bicycle parking codes and standards. ○ adequacy of the drop-off / pick-up zone(s) and bus bay(s), including assessment of any related queuing during peak-hour access. ○ adequacy of the existing / proposed pedestrian infrastructure to enable convenient and safe access to and from the site for all users. • measures to ameliorate any adverse traffic and transport impacts due to the development based on the above analysis, including: ○ travel demand management programs to increase sustainable transport (such as a Green Travel Plan and / School Transport Plan). ○ arrangements for the Travel Coordinator roles. ○ governance arrangements or relationships with state and local government transport providers to update roads safety ○ infrastructure improvements, including details of timing and method of delivery. • a preliminary school transport plan detailing an operational traffic and access management plan for the site, pedestrian entries, the drop-off / pick-up zone(s) and bus bay(s)	

SEAR	Location in EIS

• analysis of the impacts of the traffic generated during construction of the proposed development, including:
  o construction vehicle routes, types and volumes.
  o construction program (duration and milestones).
  o on-site car parking and access arrangements for construction, emergency and construction worker vehicles.
  o cumulative impacts associated with other construction activities in the locality (if any).
  o road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality.
  o measures to mitigate impacts, including to ensure the safety of pedestrian and cyclists during construction.
• a preliminary Construction Traffic and Pedestrian Management plan
Note: Further guidance is provided in the TfNSW advice attached to the SEARs.
Relevant Policies and Guidelines:
• Guide to Traffic Generating Developments (Roads and Maritime Services, 2002)
• EIS Guidelines - Road and Related Facilities (Department of Urban Affairs and Planning (DUAP), 1996)
• Cycling Aspects of Austroads Guides
• NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004)
• Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management
• Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (Austroads, 2020)
• Australian Standard 2890.3 Parking facilities, Part 3: Bicycle parking (AS 2890.3).	

6. Ecologically Sustainable Development (ESD)
• Identify:
  o how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development.
  o proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy.
  o how the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and
	Section 7.4
	Appendix 7

SEAR	Location in EIS
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. o how environmental design will be achieved in accordance with the GANSW Environmental Design in Schools Manual (GANSW, 2018). • Provide: o an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level. o a statement regarding how the design of the future development is responsive to the NARCliM projected impacts of climate change. o 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. Relevant Policies and Guidelines: • NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections.	
7. Heritage • Identify any archaeological potential or archaeological significance on and adjacent to the site and the impacts the development may have on this significance. • Provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items on and adjacent to the site where applicable in accordance with the guidelines in the NSW Heritage Manual (Heritage Office and DUAP, 1996) and Assessing Heritage Significance (OEH, 2015).	Section 7.6 Appendix 6
8. Aboriginal Cultural Heritage • Document and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development. • Identify: o Aboriginal cultural heritage assessments undertaken at the site and surrounding area to date. o The impacts, including possible impacts, of the project on Aboriginal cultural heritage values and the measures proposed to mitigate impacts.	Section 7.5 Appendix 6

SEAR	Location in EIS
○ Procedures to be followed if Aboriginal objects are found at any stage of the life of the project to formulate appropriate measures to manage unforeseen impacts. ○ Procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material. • Any consultation with the Registered Aboriginal Parties that have been identified as part of the broader Googong development area must be undertaken and documented in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010). • Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment Report must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.	
9. Social Impacts • Provide a Social Impact Assessment prepared in accordance with the draft Social Impact Assessment Guideline 2020 Relevant Policies and Guidelines: • Draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment)	Section 7.7 Appendix 20
10. Noise and Vibration • ·Provide a noise and vibration impact assessment that: ○ includes a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation and construction. ○ details the proposed construction hours and provide details of, and justification for, instances where it is expected that works would be carried out outside standard construction hours. ○ includes a quantitative assessment of the main sources of 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. ○ outlines measures to minimise and mitigate the potential noise impacts on nearby sensitive receivers. ○ considers sources of external noise intrusion in proximity to the site (including, road rail and aviation operations) and identifies building performance requirements for the proposed development to achieve appropriate internal amenity standards.	Section 7.8 Appendix 11

SEAR	Location in EIS
○ demonstrates that the assessment has been prepared in accordance with polices and guidelines relevant to the context of the site and the nature of the proposed development. Relevant Policies and Guidelines: • NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA) • Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) • Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006) Note: Further guidance is provided in the Environmental Protection Authority advice attached to the SEARs.	
11. Biodiversity • Provide a Biodiversity Development Assessment Report (BDAR) that assesses the biodiversity impacts of the proposed development in accordance with the requirements of the Biodiversity Conservation Act 2016, Biodiversity Conservation Regulation 2017 and Biodiversity Assessment Method, except where a BDAR waiver has been issued in relation to the development. • Where a BDAR is not required because a BDAR waiver has been issued in relation to the development, provide: ○ a copy of the BDAR waiver and demonstrate that the proposed development is consistent with that covered in BDAR waiver ○ an assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development. Note: Further guidance is provided in the Biodiversity and Conservation Division Standard Environmental Assessment Requirements attached to the SEARs.	Section 7.9 Appendix 8a Appendix 8b
12. Contributions • Identify: ○ any Section 7.11/7.12 Contribution Plans, Voluntary Planning Agreements or Special Infrastructure Contribution Plans that affect land to which the application relates or the proposed development type. ○ any contributions applicable to the proposed development under the identified plans and/or agreements. Justification is to be provided where it is considered that the proposed development is exempt from making a contribution. ○ any actions required by a Voluntary Planning Agreement or draft Voluntary Planning Agreement affecting the site or	Section 5.9

SEAR	Location in EIS
amendments required to a Voluntary Planning Agreement affected by the proposed development.	
13. Staging • Assess impacts of staging where it is proposed and detail how construction works and operations would be managed to ensure public safety and amenity on and surrounding the site.	Section 3.7
14. Utilities • In consultation with relevant service providers: o assess of the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. o identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. o provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.	Section 7.15 Appendix 12
15. Stormwater Drainage • Provide: o a preliminary stormwater management plan for the development that: - is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority. - details the proposed drainage design for the site including onsite detention facilities, water quality measures and the nominated discharge point. - demonstrates compliance with Council or other drainage authority requirements. o stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties. • Where drainage infrastructure works are required that would be handed over to Council, provide full hydraulic details and detailed plans and specifications of proposed works that have been prepared in consultation with Council and comply with Council's relevant standards.	Section 7.10 Appendix 13
16. Flooding • Identify any flood risk on-site in consultation with Council and having regard to the most recent flood studies for the project area and the	Section 7.11 Appendix 13

SEAR	Location in EIS
potential effects of climate change, sea level rise and an increase in rainfall intensity • Assess the impacts of the development, including any changes to flood risk onsite or off-site, and detail design solutions to mitigate flood risk where required. Relevant Policies and Guidelines: • NSW Floodplain Development Manual (DIPNR, 2005).	
17. Soil and Water • Provide: o an assessment of potential impacts on surface and groundwater (quality and quantity), soil, related infrastructure and watercourse(s) where relevant o details of measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles o an assessment of salinity and acid sulphate soil impacts, including a Salinity Management Plan and/or Acid Sulphate Soils Management Plan, where relevant. Relevant Policies and Guidelines: • Managing Urban Stormwater - Soils and Construction Volume 1 (Landcom, 2004) • Acid Sulfate Soil Manual (NSW Acid Sulfate Soil Management Advisory Committee, 1998). • Acid Sulfate Soils Assessment Guidelines (DoP, 2008) • Managing Urban Stormwater - Soils and Construction Volume 1 (Landcom, 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008) Note: Further guidance is provided in the Environmental Protection Authority advice attached to the SEARs.	Section 7.12 Appendix 13 Appendix 19
18. Waste • Identify, quantify and classify the likely waste streams to be generated during construction and operation. • Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. • Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site. Relevant Policies and Guidelines: • Waste Classification Guidelines (EPA, 2014).	Section 0 Appendix 16 Appendix 17

SEAR	Location in EIS
Note: Further guidance is provided in the Environmental Protection Authority advice attached to the SEARs.	

19. Contamination
• Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. This must include the following prepared by certified consultants recognised by the NSW Environment Protection Authority:
  o Preliminary Site Investigation (PSI)
  o Detailed Site Investigation (DSI) where recommended in the PSI
  o Remediation Action Plan (RAP) where remediation is required. This must specify the proposed remediation strategy
  o Preliminary Long-term Environmental Management Plan (LEMP) where containment is proposed on-site.
• Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered.
Relevant Policies and Guidelines:
• Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP, 1998)
• Sampling Design Guidelines (EPA, 1995)
• Guidelines for Consultants Reporting on Contaminated Sites (OEH 2011)
• National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council, as amended 2013)
	Section 7.14
	Appendix 14

20. Aviation
• Identify if the proposal would affect or be affected by aviation operations associated with Canberra Airport. Where required, provide a report prepared by a suitably qualified person that:
  o identifies whether the proposed school is located within any of the following Australian Noise Exposure Forecast (ANEF) contours as specified in Table 2.1 of Australian Standard 2021:2015 Acoustics - Aircraft noise intrusion - Building siting and construction (AS 2021:2015):
  ▪ <20
  ▪ Between 20 – 25
  ▪ or >25.
  o provides details of any flight paths that may be impacted by the proposed development.
	Section 7.16
	Appendix 10

SEAR	Location in EIS
○ provides details of impact of the proposed development on Aviation and Airspace protection considering the Obstacle Limitation Surface (OLS) for Canberra Airport. Relevant Policies and Guidelines: • National Aircrafts Safeguarding Framework and associated guidelines • Airspace Regulations 2007 Note: Further guidance is provided in the Civil Aviation Safety Authority advice attached to the SEARs.	
Plans and documents	
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. Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.	Appendix 1
In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following: • Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate).	Appendix 22
• Design report to demonstrate how design quality would 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 options considered to justify the proposed site planning and design approach ○ 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 2
• Geotechnical and Structural Report	Section 8.1 Section 8.2 Appendix 15 Appendix 19

SEAR	Location in EIS
• Accessibility Report.	Section 0 Appendix 18
Consultation	
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with: • the relevant Council • Government Architect NSW (through the NSW SDRP process) • Transport for NSW Consultation should commence as soon as practicable to inform the scope of investigation and progression of the proposed development. The EIS must describe and evidence 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. Targeted consultation in accordance with the draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment) must also occur where there is a requirement to prepare and submit a Social Impact Assessment.	Section 6 Appendix 21
If you do not lodge a development application and EIS for the development within two years of the issue date of these SEARs, you must consult further with the Planning Secretary in relation to the preparation of the EIS. If any other significant issues are identified in the risk assessment, that are not identified in this SEARs, the Planning Secretary must be consulted in relation to the preparation of the EIS.	Noted.
The assessment of the key issues listed above must consider, but not be limited to, relevant guidelines, policies, and plans as identified.	Relevant guidelines, policies and plans considered in assessment of key issues

2 Site analysis

2.1 Regional context

The site is located within the township of Googong within the Queanbeyan-Palerang Regional Council LGA. The site is located approximately 10km south of Queanbeyan Central Business District. A regional context map is provided at Figure 2-1.

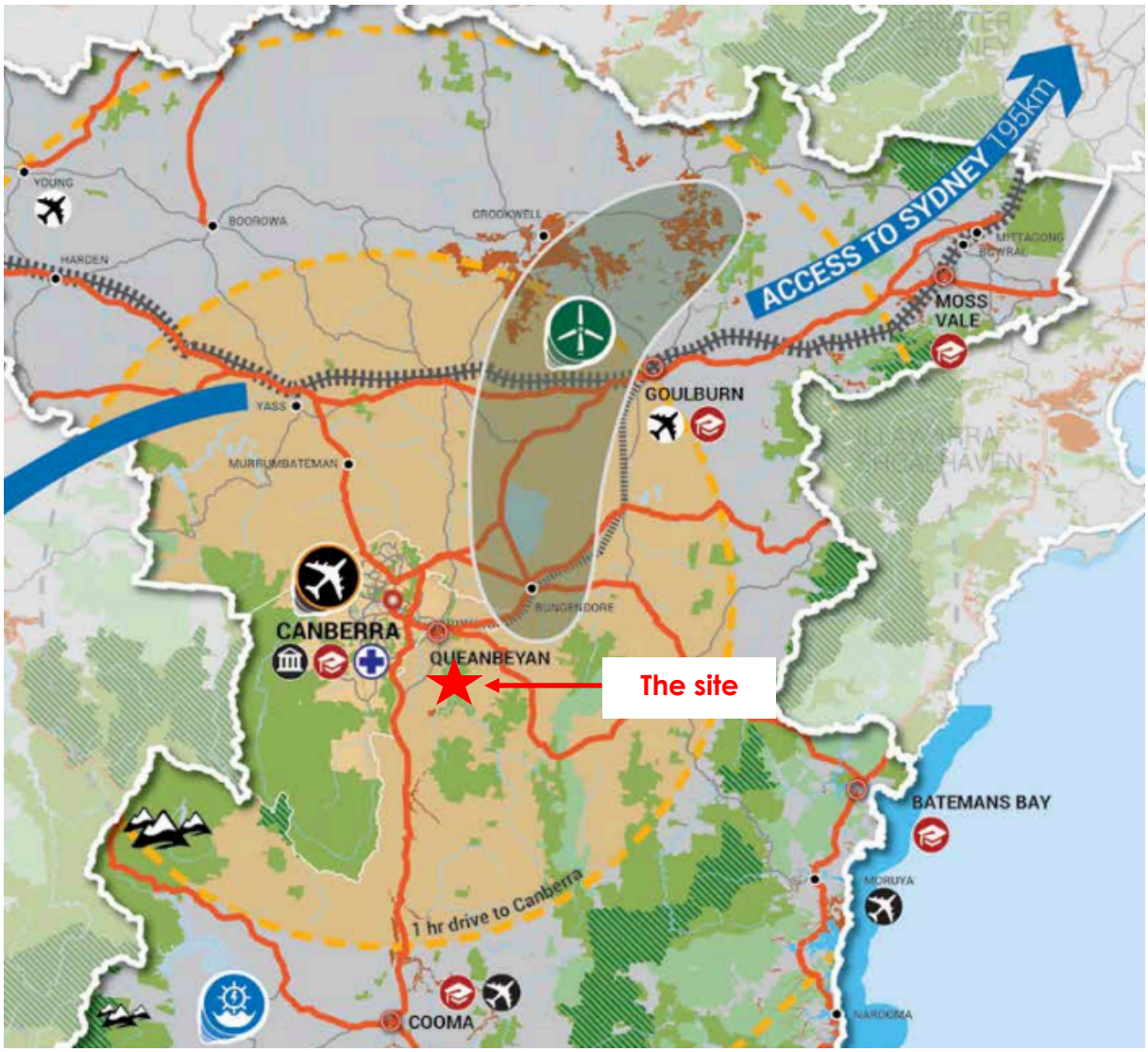


Figure 2-1 Regional context plan
Source: South East and Tablelands Regional Plan 2036

2.2 Local context

The site is located within the recently developed township of Googong. Planning for the township began in the early 2000s, with the first rezoning approved in 2009 and the first residents took up residence in 2014. Googong has five neighbourhoods and will eventually have around 6,000 houses, as well as schools, parks, shops and businesses.

The site is located within Neighourhood 1A of the township, approximately 100m west of Googong North Village Centre, which is a neighbourhood shopping centre with supermarket, cafes, take-away food outlets and shop top housing. There is also a community centre, church and child care centre adjacent to the shopping centre. Two neighbourhood parks are located in the immediate vicinity, one opposite Aprasia Avenue and the other opposite Wilkins Way.

A local context map is provided below.

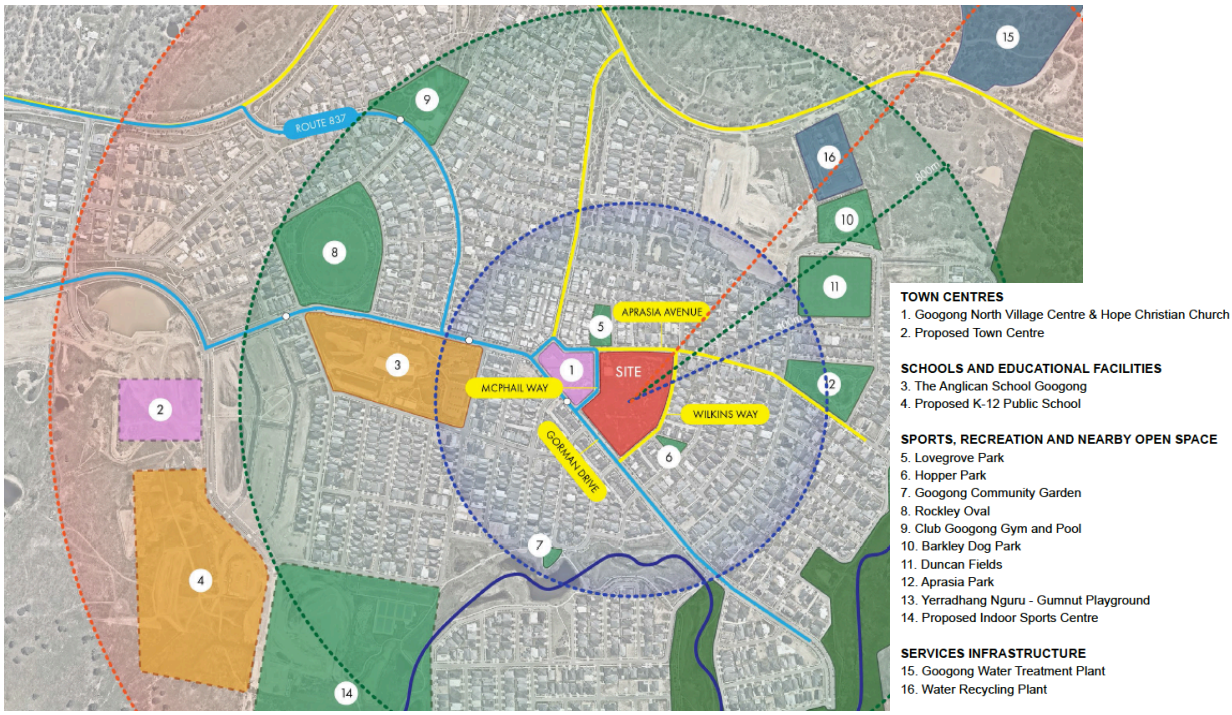


Figure 2-2 Local context map
Source: Pedavoli Architects

2.3 Site description

The site is located at Aprasia Avenue, Googong, and is formally described as Lot 3 DP1179941. The site is irregular in shape and has an area of 28,118.39m^2.

The site is bordered on all sides by roads, namely Aprasia Avenue to the north, Gorman Drive to the south, Wilkins Way to the east and McPhail Way to the west. The site's frontages to these roads are approximately 151m, 129m, 256m and 138m, respectively.

The existing site is cleared and vacant, with the exception of a substation located on the north-western corner.

The site levels generally fall away from the centre of the site. In southwest of the site the levels are at approximately 743m Australian Height Datum (AHD) near an existing local basin/depression. The levels then gradually rise northward to a crest 745m. From the crest, the levels fall to the north and east to approximately 736m AHD.

Photos of the site are provided in the figures below.

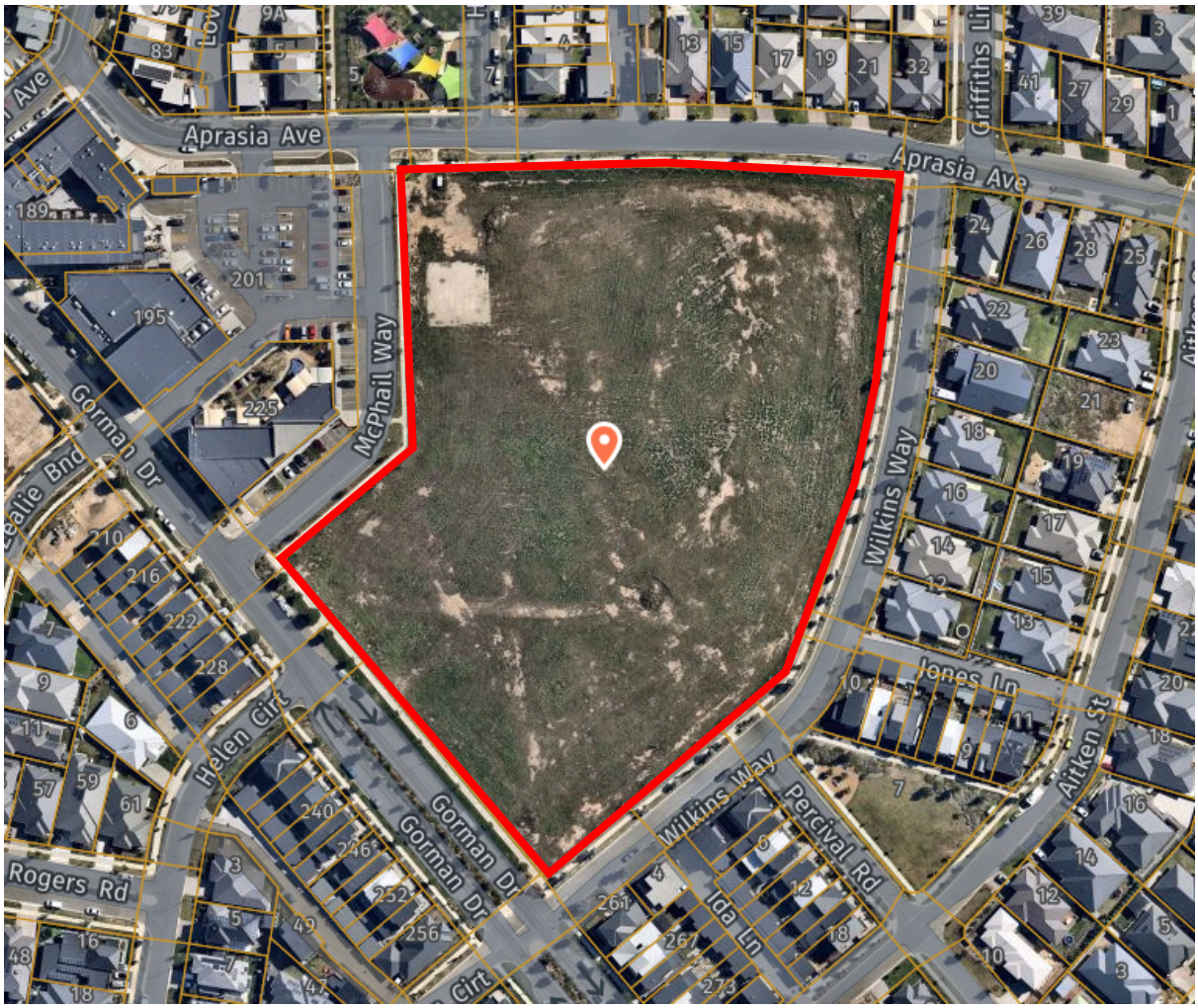


Figure 2-3 Site aerial image
Source: Nearmap

Figure 2-4 Looking NW to site from Gorman Dr/Wilkins Way intersection
Source: Pedavoli Architects

Figure 2-5 Looking S along McPhail Way (site to the left)
Source: Pedavoli Architects

Figure 2-6 Looking E along Aprasia Ave (site to the right)
Source: Pedavoli Architects

2.4 Surrounding development

Googong North Village Centre, a neighbourhood shopping centre, is located immediately to the west of the site opposite McPhail Way. This shopping centre contains a supermarket, several cafes/restaurants and shop to housing. Additionally, a community centre, child care centre and church are located adjacent to the shopping centre.

The site is otherwise surrounded by low density residential development. Two parks are located opposite the site, namely Lovegrove Park on Aprasia Avenue and Hopper Park on Wilkins Way.

Figure 2-7 Community centre/church across McPhail Way
Source: Pedavoli Architects

Figure 2-8 Looking W along Aprasia Ave towards shopping centre
Source: Pedavoli Architects

Figure 2-9 Residential development to the S across Gorman Dr
Source: Pedavoli Architects

Figure 2-10 Local park to the N across Aprasia Ave
Source: Pedavoli Architects

2.5 Transport infrastructure

The site is bordered on all sides by local roads, namely Gorman Drive, Aprasia Avenue, Wilkins Way and McPhail Way.

The Googong locality has a high dependency on private vehicles. There are no rail services in the area, and there is only one public bus service (837 Googong to Queanbeyan, via The Anglican School) operating in Googong. The bus service runs between Googong and Queanbeyan twelve times a day and between Queanbeyan and Googong four times a day. There are two bus stops located on Gorman drive in proximity to the site. The eastbound bus stop is directly adjacent the neighbouring church, and the westbound bus stop is located on the southern side of Gorman Drive south of the McPhail Way intersection.

The area surrounding the site has extensive and connected pedestrian network. Footpaths of good condition border all of the site frontages.

Existing cycling infrastructure includes an on-road dedicated cycling lane on either side of Gorman Drive, which runs along the length of Gorman Drive from Wellsvale Drive in the west to Bobby Street to the east. No other cycling infrastructure is provided. However, it is noted that the footpath network is well developed and can cater for children (younger than 16 as per state government road rules) who ride a bicycle or scooter.

3 Description of proposed development

The table below provides a summary of the key elements of the proposed development. The elements are described in further detail in the subsections below the table.

The proposed development includes 30 home base units, 3 special education learning units, canteen, hall, library, administrative facilities, sports court and play area, as well as an onsite car park and on-street kiss-and-ride facilities.

Table 3-1 Summary description of the development

Proposal element	Brief description
Gross floor area (GFA)	5,787.83m^2
Height	Maximum RL 755.374 One to two storeys
Land use	School
Student capacity	700 students
Access	Access to the site will be via Gorman Drive.
Car parking	Onsite car park with 60 spaces accessed via Aprasia Avenue
Jobs	Construction: 336 full time equivalent (FTE) jobs Operation: 43 staff jobs plus 5 maintenance/cleaning jobs
Construction hours	Monday to Friday: 7.00am to 6.00pm Saturdays: 8.00am to 5.00pm No work on Sunday or public holidays
Hours of operation	School accessible from 6.30am to 6.30pm weekdays Morning bell at 9.00am and afternoon bell at 3.00pm Out of school hours care to run from 7.00am to 9.00am and from 3.00pm to 6.00pm
Signage	One digital pylon sign at car park entry One plinth sign at main pedestrian entry

3.1 Earthworks

The proposal requires some cut and fill to form the platforms for the buildings, play area, stormwater detention tanks and car park. A bulk earthworks drawing is provided in the Civil Engineering Report at **Appendix 13**, and an extract of the drawing is provided below.

As seen in the diagram, the cut will occur across the centre of the site and at the eastern and western edges, while the fill will generally occur along the northern and southern edges. The maximum depth for both cut and fill is approximately 2m as shown in the diagram.

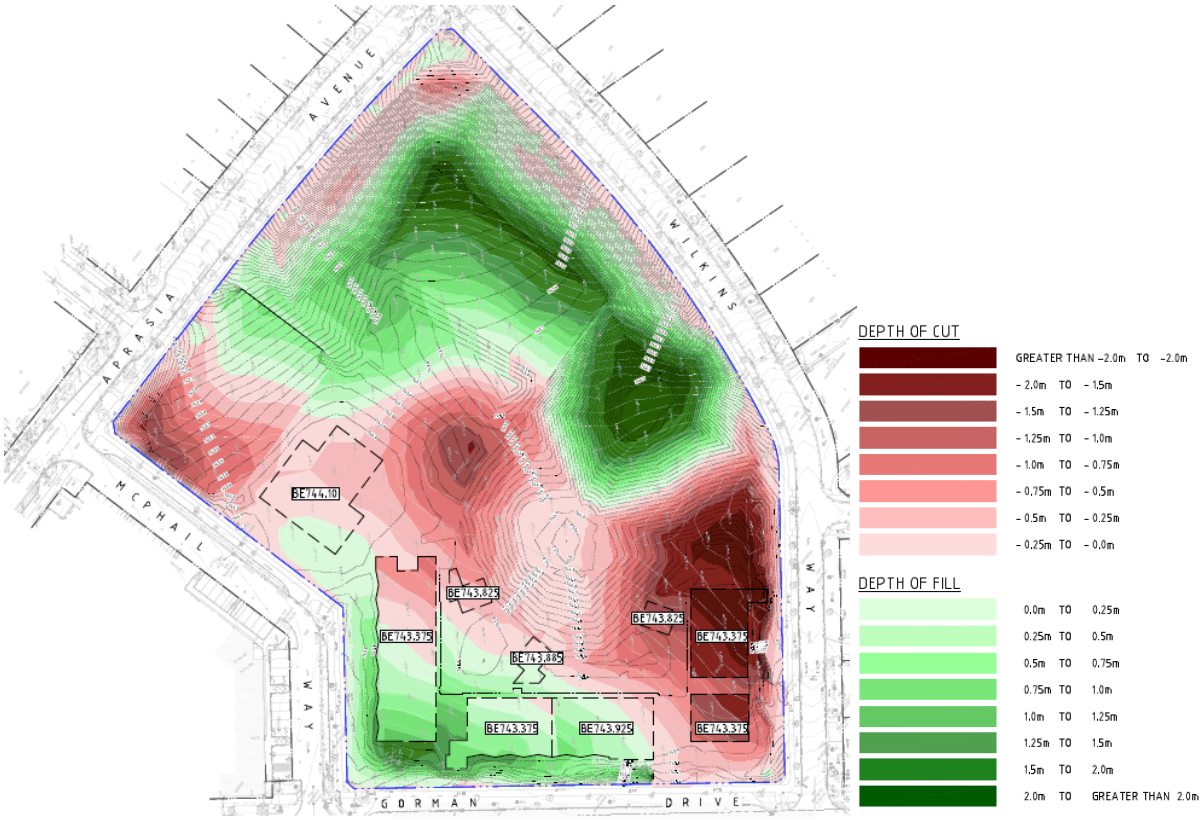


Figure 3-1 Bulk earthworks plan
Source: Northrop

3.2 Tree removal

The site itself contains no trees. However, the proposal seeks approval for removal of 15 street trees to facilitate construction of the kiss-and-ride and bus stop areas, including 7 young Pin Oaks along Aprasia Avenue and 8 young Plane Trees along Gorman Drive, as outlined in red in the landscape plan extract below.

The tree removal is considered acceptable given it will facilitate crucial transport infrastructure for the school. Also, the proposed landscape scheme features significant new plantings that will improve the visual amenity of the site, including 362 new trees, many of which will be located along the site borders.

Figure 3-2 Area of tree removal along Aprasia Ave
Source: Pedavoli Architects

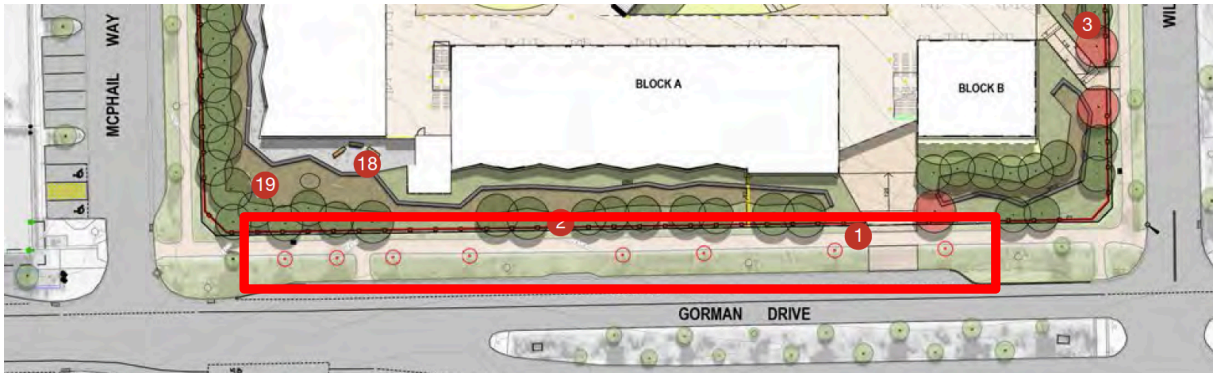


Figure 3-3 Area of tree removal along Gorman Drive
Source: Pedavoli Architects

3.3 Built form and design

3.3.1 Layout

The proposed layout consists of four separate buildings (Blocks A, B, C and D) positioned generally in a U shape in the southern portion of the site and aligned with the bordering streets. Block A, located adjacent the main pedestrian entry, contains administrative facilities and homebase units; Block B is separated into two parts by a secondary pedestrian entry and contains homebase units and special education

learning homebase units; Block C contains homebase units; and Block D contains the hall, canteen and out of school hours care facilities.

The buildings are oriented to address the street, and appropriate separate is provided between buildings to allow for visual breaks.

The building layout responds appropriately to the site's varying boundary conditions and creates a protected play space surrounded by buildings and landscape buffers. Further discussion on the proposal's interface with the surrounding development is provided at section 3.3.7 below.

A site plan is provided at Figure 3-4.

Figure 3-4 Site plan
Source: Pedavoli Architects

3.3.2 Height, bulk and scale

At one and two storeys, the proposed school buildings are compatible with the height of surrounding development, which includes two-storey residential development to the north, south and east, and two- to three-storey development in the village centre to the west. A minor variation is proposed to the 8.5m height limit, which is discussed in further detail at section 5.7.

The 3D render at Figure 3-5 below illustrates the proposal in the context of surrounding development. As seen, the proposal's bulk and scale appear typical of a school use and are compatible with the surrounding residential and commercial development.

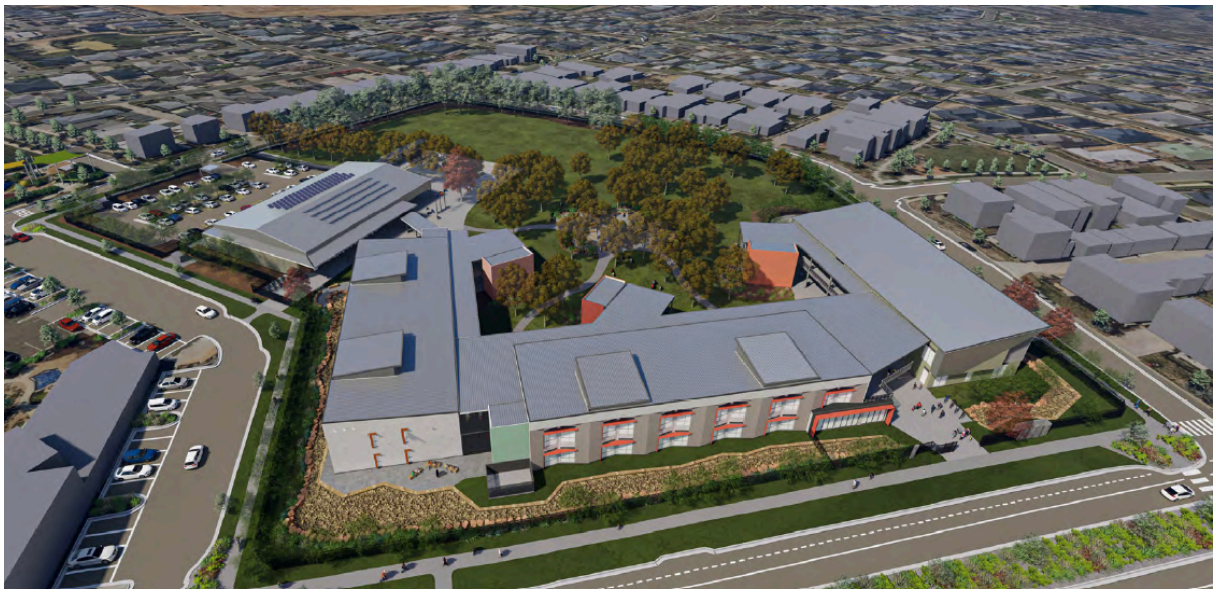


Figure 3-5 3D render of proposal
Source: Pedavoli Architects

3.3.3 Density

There is no FSR or other density control applicable to the site. The proposal's density is a direct result of the required student capacity and site/context analysis. The proposed buildings are sized for purpose and feature appropriate intra-building separation and setbacks from the bordering roads.

The proposed gross floor area is 5,787.83m^2. Based on the site area of 28,118.39m^2, the proposed FSR is approximately 0.21:1. This FSR is considered appropriate to the village centre edge context.

3.3.4 Setbacks

The proposal features the following setbacks from the boundaries:

- **Aprasia Avenue:** Block D, the closest built form to Aprasia Avenue, is set back from the road by more than 45m. The onsite car park is located within the setback zone.

- **Wilkins Way:** Block B fronts Wilkins Way and is set back from Wilkins Way by at least 9.8m.
- **Gorman Drive:** Block A fronts Gorman Drive and is set back from the road by at least 7.4m. Blocks B and C are set back from the road by approximately 12.2m and 13.5m, respectively.
- **McPhail Way:** Blocks C and D front McPhail Way and are set back from the road by 9.6m and 8m, respectively.

The proposed setbacks provide for an appropriate streetscape, allow for buffer landscaping and are consistent with local controls as discussed at section 5.8 of the EIS.

3.3.5 Façade and articulation

The proposal utilises varying setbacks, breaks in building form, materiality and fenestration to create articulated buildings that are visually attractive and compatible with the neighbourhood centre character. Opened covered connections between buildings will create visual relief in the façade while allowing daylight, breezes and visual connection between the school and surrounding context.

3.3.6 External materials and finishes

The selected external colours and textures are desaturated in tone, drawing on the inspiring surrounding rolling hills and valleys as discussed with relevant Aboriginal stakeholders during pre-lodgement consultation. The palette also aims to integrate with the wayfinding, signage and landscape designs.

The roof will be light coloured to achieve low solar absorbance, and materials will be selected that are durable and low maintenance. Brick has been selected for the hall to respond to the surrounding built context and the earthy tones found in the landscape. Sample materials and inspiration are shown in the image below.

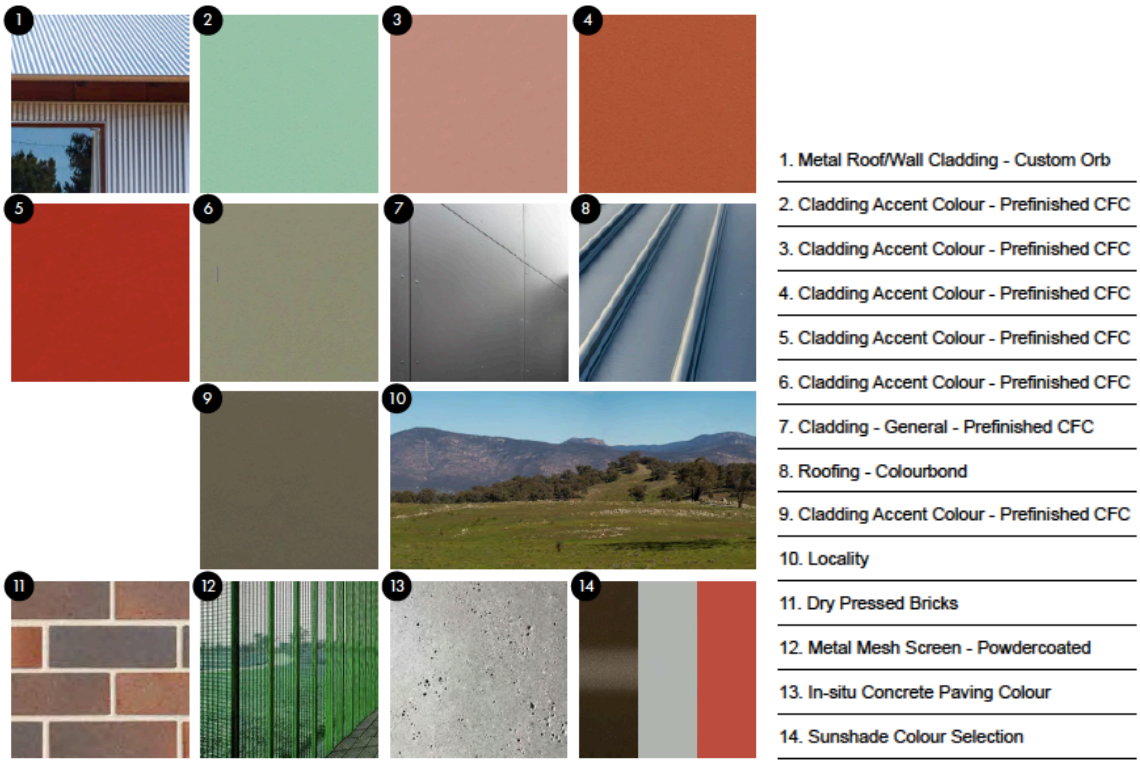


Figure 3-6 External materials and finishes board
Source: Pedavoli Architects

3.3.7 Relationship to surrounding development, topography and streetscape

Relationship to surrounding development

The position of the buildings responds to surrounding development as follows:

- The proposed buildings positively address, and are aligned with, McPhail Way to the west, Gorman Drive to the southwest and Wilkins Way to the southeast, providing appropriate street frontages for the school.
- The built form is situated towards the adjacent commercial centre, contributing to creation of a consolidated centre with commercial, community and educational facilities.
- The hall (Block D) is positioned in the northwest corner of the site adjacent to the car park and directly opposite the neighbouring commercial centre. This position provides easy access to the hall from the car park and from surrounding public parking in the case of future potential community use of the hall.

Relationship to topography

The site was previously cleared and is generally level. The proposal responds to this existing topography by proposing minor cut and fill to achieve the required building platforms. Refer to section 3.1 for further discussion.

Relationship to streetscape

The proposal positively addresses the surrounding streets, with buildings fronting Gorman Drive, Wilkins Way and McPhail Way.

The proposal includes multiple pedestrian entries, which will serve to activate the streetscape while also ensuring adequate safety for students.

New buffer plantings along the boundaries will positively contribute to the streetscape.

Elevations showing the proposal's relationship to the streetscape context are provided in the figures below, while the full-size version can be found in the Design Analysis Report at **Appendix 2**.

Figure 3-7 Gorman Dr elevation
Source: Pedavoli Architects

Figure 3-8 McPhail Way elevation (southern end)
Source: Pedavoli Architects

Figure 3-9 Wilkins Way elevation
Source: Pedavoli Architects

Figure 3-10 Aprasia Ave elevation
Source: Pedavoli Architects

3.3.8 Services

Waste and other services have been considered in the design of the proposal, with specialist consultants engaged from an early stage of the project. A waste storage pad is provided in the car park, and waste collection will occur from this point.

In regards to mechanical plant, the architectural plans at **Appendix 1** include the locations of communication rooms, utility rooms and other necessary rooms for services, and the section drawings clearly indicate sufficient space for service bulkheads.

3.3.9 Access to daylight, ventilation and acoustic separation

The design utilises a combination of passive and mechanical measures to ensure the amenity and comfort of students and staff.

Learning spaces and common spaces are oriented to achieve high levels of natural daylight and feature extensive glazing to allow visual connection to the outdoors. The outdoor play area is also located in the north of the site to maximise solar access.

In regards to ventilation, a mixed mode strategy will be utilised. When external conditions are favourable, windows to each homebase cluster can open to facilitate natural ventilation.

In regards to acoustic separation, the buildings have been arranged to provide amenity both for students and neighbouring uses. The U-shaped arrangement of the buildings will serve to shield the central outdoor space from vehicle emissions and noise and will also serve to limit noise emissions from school activities. Buffer plantings will be utilised along the Wilkins Way and Aprasia Avenue boundaries to promote acoustic amenity for students and surrounding residents.

Access to landscape and outdoor spaces

The proposal features a landscape design with ample outdoor spaces including central play area with dry creek bed and growing gardens, a large grassed area and separate sports courts. The landscaping is integrated with the building design, ensuring students have easy and frequent access to outdoor spaces. The landscape design is described further in section 3.4 below.

3.4 Landscaping

A landscape plan has been prepared by Taylor Brammer and is attached at **Appendix 3**. The landscape strategy generally includes:

- Deciduous tree planting at the pedestrian entries and at key locations in the outdoor play areas.
- Open grass play area in the northern portion of the site, surrounding by buffer planting.

- Native tree buffer planting along all boundaries, with particularly dense planting surrounding the northern play area along Apraisa Avenue and Wilkins Way.

A total of approximately 330 native trees and 32 exotic tree plantings are proposed.

The proposed landscape masterplan is shown in the figure below.

Figure 3-11 Landscape plan
Source: Taylor Brammer

The proposed plant species have been carefully selected from the ACT Government's "Municipal Infrastructure Standards Part 25 Plant Species for Urban Landscape Projects" and "Native Plant List for Water Wise Gardens in the Yass Valley".

The Yellow Box – Red Gum Grassy Woodland, a critically endangered community in the ACT Region, provides direction for the native tree and grassland selection in the design.

Additionally, the Ngunnawal people have inspired the selection of many of the plant species. Plants were utilised for a variety of uses such as food, medicine, tools, artworks and shelter.

3.5 Security fencing

The proposal includes 2.15m-high security fencing along all boundaries and around the car park. The fencing layout is shown in the image below. Refer to the fencing plan in the architectural drawings at **Appendix 1** for further detail.

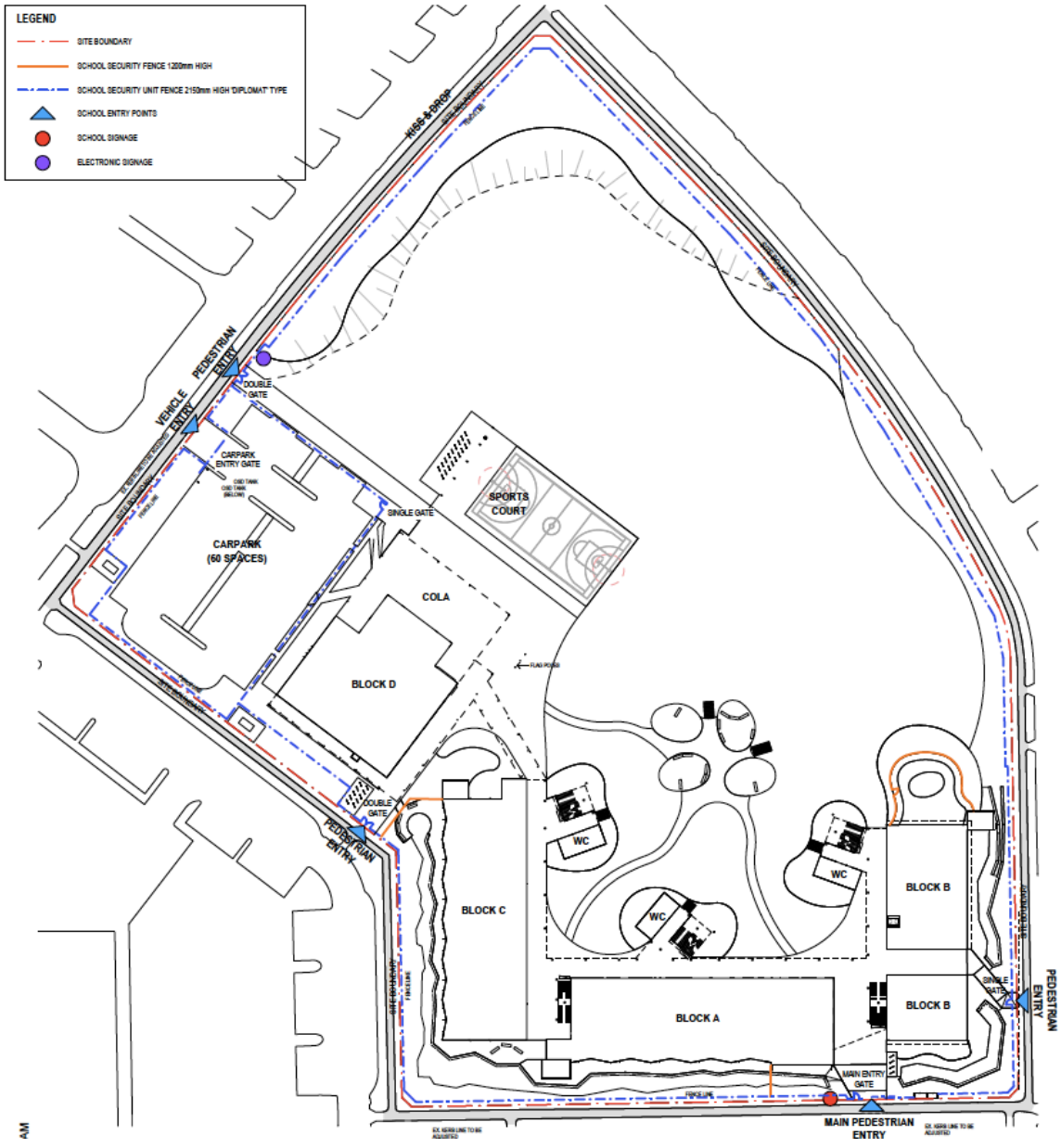


Figure 3-12 Fencing strategy
Source: Pedavoli Architects

3.6 Access, parking and circulation

3.6.1 Parking

The proposal includes an onsite car park with 60 spaces. Being a primary school, the car park will cater for staff only. This quantity of spaces is adequate for staff in accordance with Schools Infrastructure NSW (SINSW) guidelines.

3.6.2 Vehicular access into site

All vehicles, including service vehicles, will access the car park via a new driveway to Aprasia Avenue as shown in Figure 3-13 below. The car park has been specifically designed to accommodate up to medium rigid vehicles. Swept paths are provided at Appendix B of the Transport Assessment at **Appendix 5a.**

Figure 3-13 Vehicular access
Source: Ason Group

3.6.3 Kiss-and-ride

Two drop-off and pick-pick areas, otherwise known as kiss-and-ride areas, will be provided along Aprasia Avenue westbound and Gorman Drive eastbound as shown in Figure 3-14 below. The primary kiss-and-ride area will along Aprasia Avenue, while the area along Gorman Drive will be used for special education learning students.

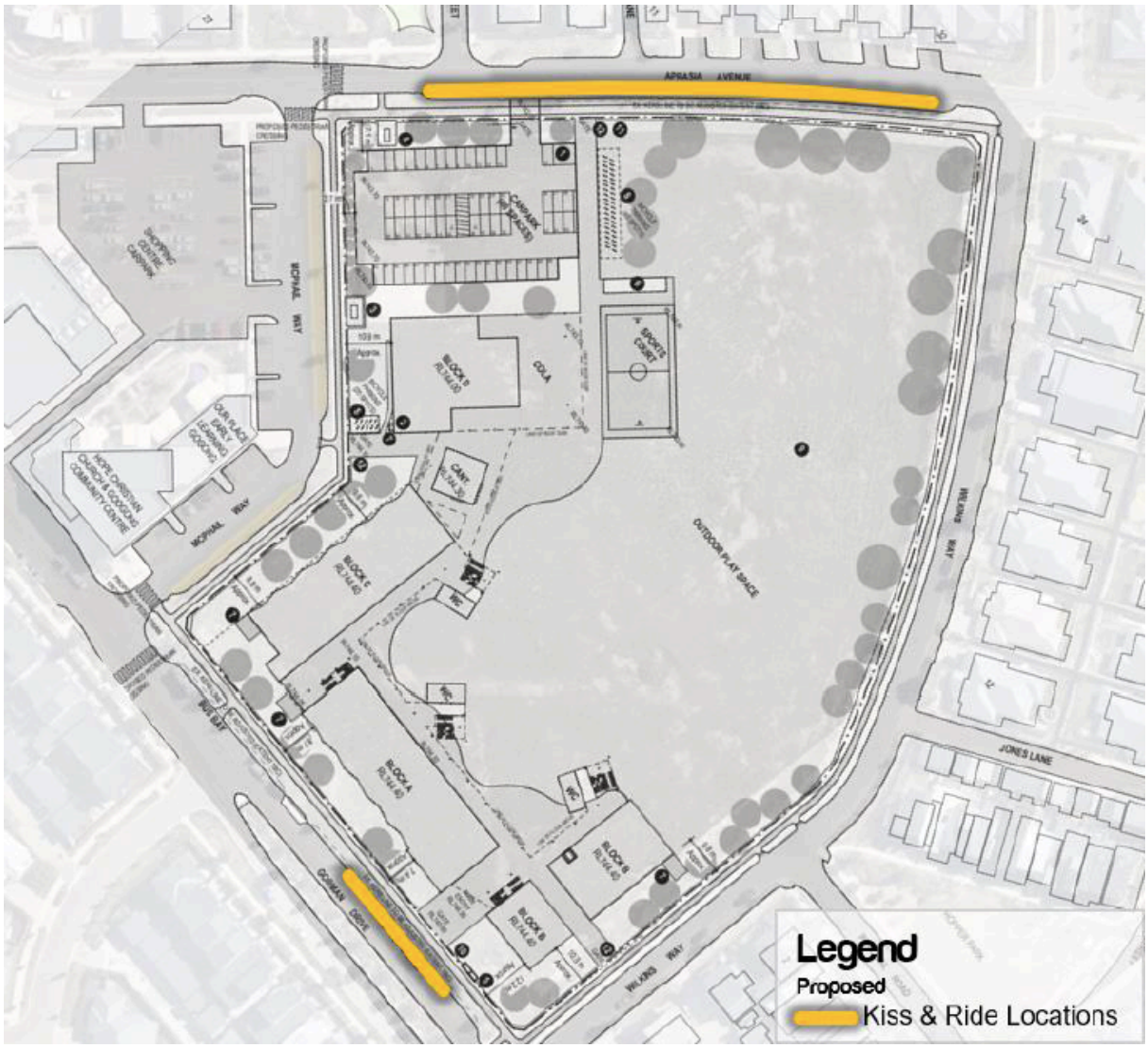


Figure 3-14 Kiss-and-ride locations
Source: Ason Group

3.6.4 Bus bay

A bus bay is proposed along the site's southern frontage along Gorman Drive. The bay can accommodate two buses at any given time. Traffic will be managed by a school crossing supervisor when students are using the crossings.

3.7 Staging

The proposal does not include any staged construction or occupation.

3.8 Construction

Construction will be undertaken during standard hours, namely:

- Monday to Friday: 7:00am to 6:00pm.

- Saturdays: 8:00am to 5:00pm.
- No work on Sunday and public holidays.

Approximately 336 FTE jobs will be created during the construction phase.

Construction is anticipated to commence in December 2021 and be completed in May 2022.

3.9 Operational details

The school will accommodate up to 700 students and employ approximately 43 operational staff plus 5 maintenance and cleaning staff.

The school will be accessible from 6.30am to 6.30pm on weekdays, with restricted access outside these hours. The morning bell is expected to be at 9.00am and the afternoon bell at 3.00pm.

The out of school hours care will operate before school from 7.00am to 9.00am and after school from 3.00pm to 6.00pm, and a maximum of 110 students will attend out of school hours care.

3.10 Signage

Two signs are proposed as part of this application:

- A digital pylon sign located at the main driveway entry with a digital content area of 1,080mm x 1,720mm and with a maximum height of 4,390mm.
- A plinth sign located at the main pedestrian entry along the security gate, measuring 600mm in width and 2,800mm in height.

The figures below show the location and indicative elevations of the proposed signage.

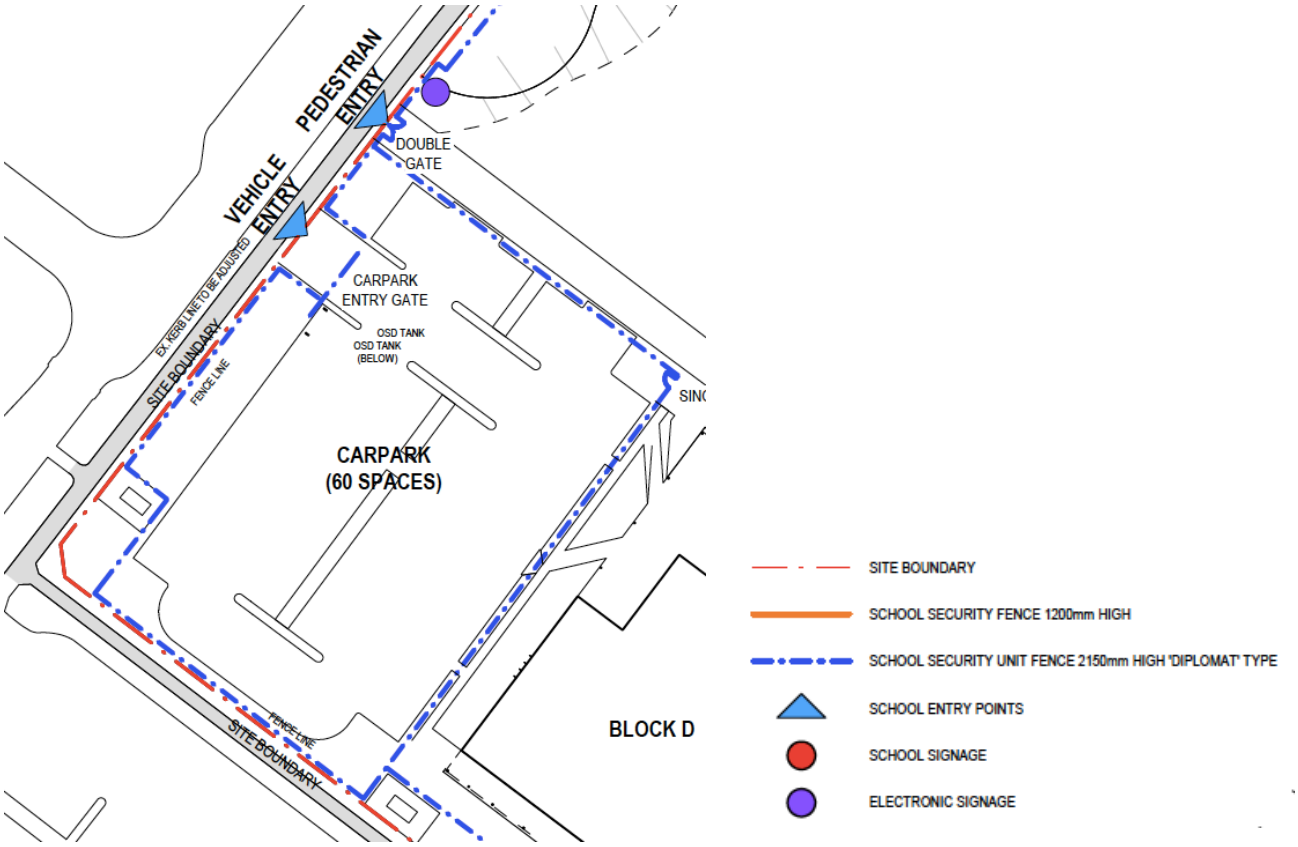


Figure 3-15 Signage location plan 1
Source: Pedavoli Architects

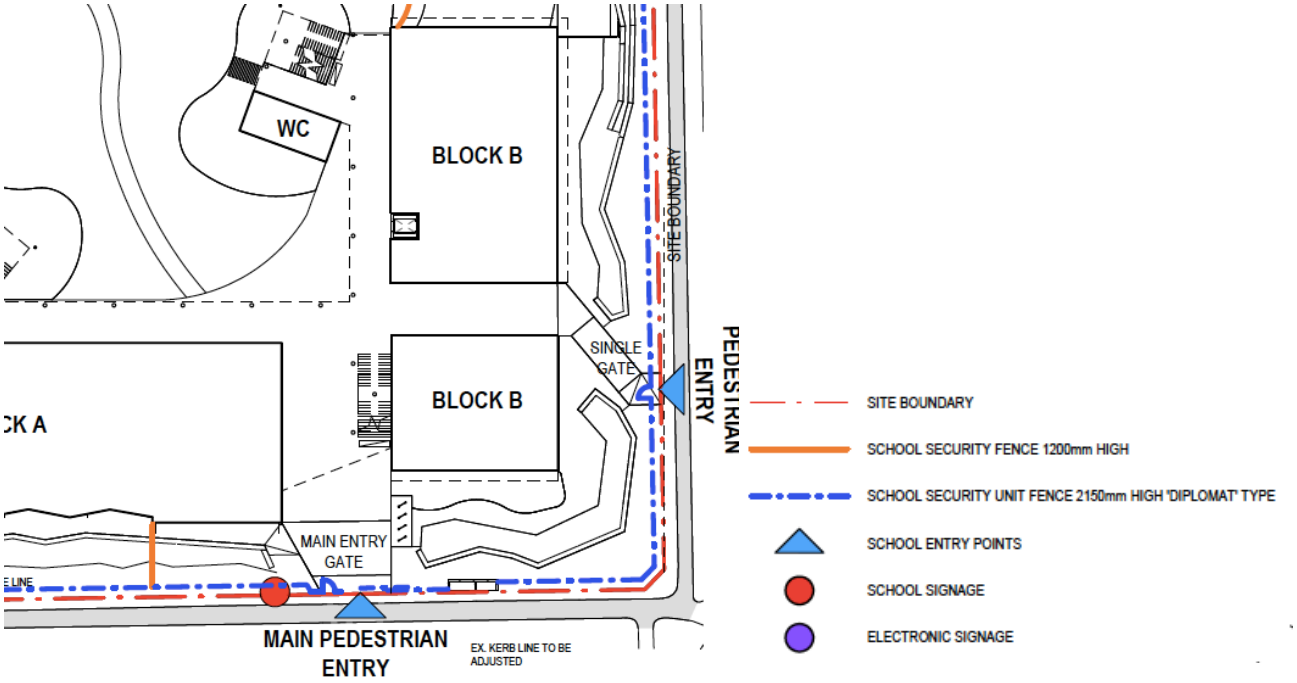


Figure 3-16 Signage location plan 2
Source: Pedavoli Architects

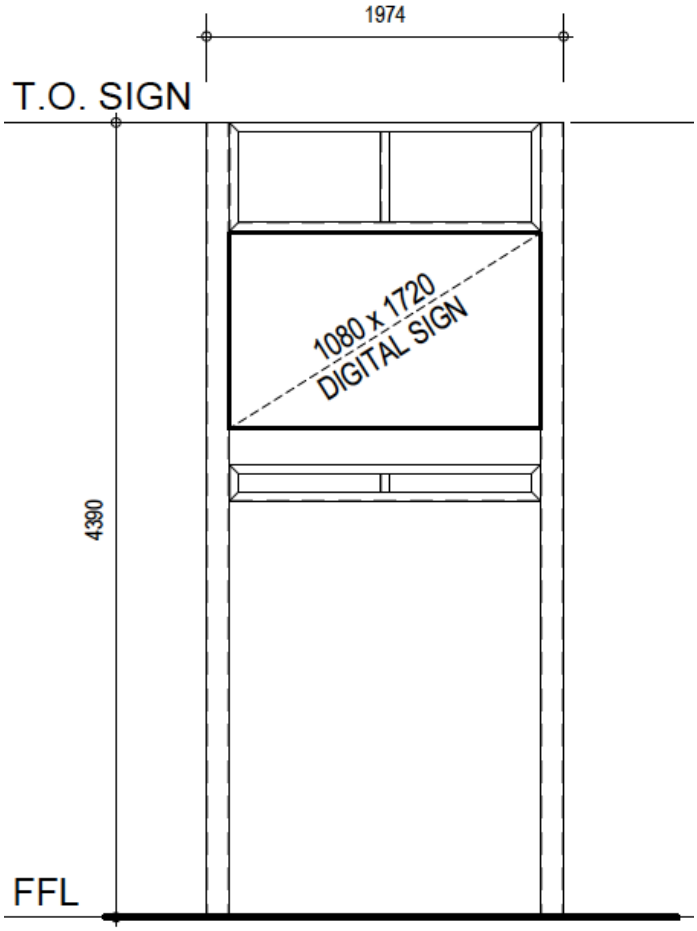


Figure 3-17 Proposed digital pylon sign
Source: Pedavoli Architects

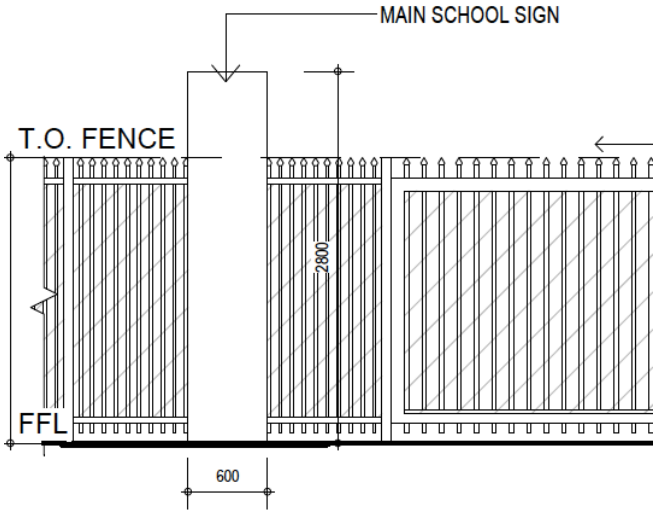


Figure 3-18 Proposed plinth sign
Source: Pedavoli Architects

4 Strategic context

The proposal is consistent with the relevant planning provisions, goals and strategic planning objectives in relevant planning policies, as outlined in the table below.

Table 4-1 Assessment against strategic plans

Strategic plan	Purpose
NSW State Priorities	The 14 NSW State Priorities were unveiled in 2019 to provide a framework for economic growth, infrastructure delivery, service provision, and community wellbeing and safety across NSW. The proposal seeks to construct a new school to enable increased student capacity within Googong. Through its provision of important educational services, the proposal supports the priority of "bumping up education results for children". The other priorities are generally not relevant given the proposal's nature and location.
State Infrastructure Strategy 2018 – 2038 Building the Momentum	The State Infrastructure Strategy is a 20-year infrastructure investment plan for the NSW Government that places strategic fit and economic merit at the centre of investment decisions. The Strategy's strategic objective for education infrastructure is to "Deliver infrastructure to keep pace with student numbers and provide modern, digitally-enabled learning environments for all students". The Strategy primarily relates to addressing enrolments in schools, which are expected to increase by 25% over the next 20 years. The proposal is consistent with the Strategy's relevant objective in that it provides for important social infrastructure to support the states future population growth incorporating best practice approaches to education. The proposal will meet the growing demand for schools for specific purposes in the region.
Future Transport Strategy 2056	The Future Transport Strategy 2056 is an update of the NSW Long Term Transport Masterplan. It sets the 40-year vision, directions and outcomes framework for transport customer mobility in NSW. The Strategy will be delivered through a suite of accompanying plans, including Services and Infrastructure Plans and issue-based or placed-based Supporting Plans. The proposal encourages active transport, which is assisted by the schools central location, close to bus serves and residential development. There are no other specific objectives or actions in the strategy directly relevant to the proposal.

Strategic plan	Purpose
South East and Tablelands Regional Plan 2036	The South East and Tablelands Regional Plan 2036 is the NSW Government's strategy for guiding land use planning decisions for the region over the next 20 years. The regional plan sets out four strategic goals for the region: • A connected and prosperous economy. • A diverse environment interconnected by biodiversity corridors. • Healthy and connected communities. • Environmentally sustainable housing choice. Key relevant directions from the plan are addressed below. *Direction 21: increase access to health and education services* The proposal is consistent with this direction by providing for a new primary school that responds to demand and considers the specific needs of the local student population. *Direction 22: Building socially inclusive, safe and healthy communities* The proposal is consistent with this direction by locating a new school in a central location that will contribute to a walkable neighbourhood.
Queanbeyan-Palerang Local Strategic Planning Statement – Towards 2040 (LSPS)	The LSPS sets a 20-year vision for Queanbeyan-Palerang. A series of land-use planning priorities are identified to inform the direction and content of the LSPS. The LSPS states that families should have the choice for the children to attend local primary and secondary schools within the town. The proposal delivers on this vision. There are no set planning actions for Googong in the LSPS, though it is identified as being able to accommodate a school.
Crime Prevention Through Environmental Design (CPTED) Principles	The proposal has been designed in accordance with the four key principles of CPTED including surveillance, access control, territorial reinforcement and space management. Refer to the Design Analysis Report at **Appendix 2** for further discussion.
Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)	This policy sets out the NSW Government's position on design in the urban environment. It provides clarity on what the NSW Government means by good design and functions to assist in the design and assessment of projects. The policy includes seven applicable objectives: • Better fit – contextual, local and of its place; • Better performance – sustainable, adaptable and durable; • Better for community – inclusive, connected and divers;

Strategic plan	Purpose
	• Better for people – safe, comfortable and liveable; • Better working – functional, efficient and fit for purpose; • Better value – creating and adding value; and • Better look and feel – engaging, inviting and attractive. In accordance with these objectives, the proposal is sustainable, functional, sensitive to its context and visually distinctive. Notably, the design has been reviewed by the State Design Review Panel as discussed at section 6.2 and in the Design Analysis Report at **Appendix 2.**
Healthy Urban Development Checklist	The purpose of the Healthy Urban Development Checklist is to assist health professionals in providing advice on urban development proposals. The proposal is consistent with the Checklist as it will provide for a new development characterised by well-designed open spaces, quality environment, opportunity for social cohesion, healthy food and high quality learning facilities.
Draft Greener Places Design Guide	The Draft Greener Places Policy aims to guide the planning, design and delivery of Green Infrastructure in urban areas across NSW. The Policy is centred around the following four guiding principles: • Principle 1 – Integration; • Principle 2 – Connectivity; • Principle 3 – Multifunctionality; and • Principle 4 – Participation. In accordance with these principles, the proposal successfully integrates building form and green open space; provides for a series of accessible connected open space; features multifunctional green space that simultaneously provides environmental performance and enhances facility amenity; and incorporates the needs of various stakeholders including students, staff, community and local Aboriginal stakeholders.
Queanbeyan-Palerang Community Strategic Plan 2018-2028	Council's Community Strategic Plan is a high level aspirational plan that identifies the community's main priorities and aspirations for the future, and the strategies for achieving these. The Plan is structured around five key pillars, namely community, choice, character, connection and capability. There are no actions in the Plan directly relevant to the site or school development, but the proposal aligns with the following key goals: • 1.1 We build on and strengthen our community cultural life and heritage.

Strategic plan	Purpose
	• 1.4 We are a learning community. • 1.5 We have an active and healthy lifestyle. • 3.1 We consider the environmental impacts of future development. • 3.2 Our region's urban landscapes are well managed and maintained promoting community pride. • 3.3 Our natural landscape and water resources are sustainability managed. • 3.4 We actively promote and implement sound resource conservation and good environmental practice. • 3.5 We ensure ethe future planning for the regional is well coordinated and provides for its sustainable management.

5 Statutory context

5.1 Planning approval pathway

The SRD SEPP nominates certain types of development as either SSD, State Significant Infrastructure or regionally significant development. Under clause 15(1) of Schedule 1 of the SRD SEPP, development for the purpose of a new school, regardless of the CIV, is categorised as SSD.

The proposal is for the purposes of a new school and is therefore classified as SSD. The consent authority under section 4.5 of the EP&A Act is the Minister for Planning and Public Spaces or their delegate.

The EP&A Act establishes the assessment framework for the proposal. Section 4.12(8) requires that a development application for an SSD be accompanied by an EIS prepared by or on behalf of the applicant in the form prescribed by Schedule 2 of the Environmental Planning and Assessment Regulation 2000.

5.2 Permissibility

The site is currently zoned R1 General Residential under the *Queanbeyan Local Environmental Plan 2012* (the LEP). Educational establishments are prohibited in the zone. However, clause 35(1) of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* (Education SEPP) states that development for the purpose of a school may be carried out by any person with development consent on land in a prescribed zone. Clause 33 of the Education SEPP identifies the R1 zone as a prescribed zone, and therefore the proposed school is permitted with consent.

5.3 EP&A Act

The table below provides consideration of the proposal in the context of the objects of the EP&A Act.

Table 5-1 Objects of the EP&A Act

Objects of the EP&A Act	Comments
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources	The proposal conserves and manages resources by locating the development on an already cleared area of land within an urban area.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The proposal incorporates a number of ESD measures outlined in section 7.4 of the EIS. The proposal is targeting a 4 Star Green Star rating.

Objects of the EP&A Act	Comments
(c) to promote the orderly and economic use and development of land	The proposal promotes the orderly and economic use of land by placing a new school on relatively unconstrained land in an existing urban area to cater for future population growth.
(d) to promote the delivery and maintenance of affordable housing	This objective is not applicable to the proposal.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats	The proposal has been designed to avoid impacts on the environment. The proposal involves no vegetation removal. A Biodiversity Development Assessment Report (BDAR) waiver has been obtained from DPIE in recognition of the proposal's minimal impacts on biodiversity (refer to **Appendix 8a**).
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)	The built and cultural heritage of the site and adjoining properties has been considered as part of this EIS. As discussed in sections 7.5 and 7.6, the proposal would have no unacceptable heritage impacts.
(g) to promote good design and amenity of the built environment	The proposal features a high quality, purpose-built design that provides high amenity for users.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants	The proposal has been designed in compliance with relevant BCA and DDA standards for building construction.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State	Prior to lodgement, consultation was carried out with a range of State government agencies and Council as detailed in section 6 of this EIS. Also refer to the consultation report at **Appendix 21.**
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The local community and other stakeholders were consulted prior to lodgement as discussed in section 6 of this EIS, and the community will be able to provide further input during the formal exhibition process.

5.4 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* is federal legislation which provides a legal framework to protect and manage nationally important flora, fauna, ecological communities and heritage places defined as "matters of national environmental significance" (MNES). A referral must be made to the Australian Government Minister for the Environment for actions that are likely to have a significant impact on MNES.

The proposal is not likely to have a significant impact on MNES and therefore no referral is required.

5.5 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) is the key piece of legislation that identifies and protects threatened species, populations and ecological communities within NSW.

Clause 7.9 of the BC Act requires any application for SSD to include a biodiversity development assessment report (BDAR) "unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values".

A request to waive the requirement for a BDAR was submitted to DPIE on 09 December 2020. In recognition of the site's lack of impact on biodiversity values, a waiver was granted on 27 April 2021 and is attached at **Appendix 8a** of the EIS. Also refer to **Appendix 8b** for the preliminary ecological assessment submitted with the SEARs request.

5.6 State Environmental Planning Policies

5.6.1 Education SEPP

The Education SEPP aims to provide a state-wide framework for delivery of education facilities.

As discussed above, clause 35(1) of the Education SEPP states that development for the purpose of a school may be carried out by any person with development consent on land in a prescribed zone. Clause 33 of the Education SEPP identifies the R1 zone as a prescribed zone, and therefore the proposed school is permitted with consent.

Clause 35(2) of the Education SEPP requires that the design quality principles must be evaluated against the design quality principles set out in Schedule 4. An assessment against these principles is provided in the table below.

Table 5-2 Assessment against Education SEPP design quality principles

SEPP	Comment
Principle 1: Context, built form and landscape	The design for the new primary school at Googong is based on information drawn from the site analysis and urban design principles and ensures the project responds to the local context. The proposed site planning is in keeping with the context through the integration of the following principles: • The proposed two-storey school is in keeping with the height of the neighbouring residential buildings and commercial spaces. • The school's primary address to Gorman Drive, shields the play space from the busiest road, prevents the school from overshadowing the outdoor plays pace, and signifies the school in the village. • The location of the hall and carpark are sensitive to the road network and the potential for future shared uses of the hall, field and sports court.
Principle 2: Sustainable, efficient and durable	The new primary school at Googong has been designed with regard to the principles of environmentally sustainable development. The buildings' location, orientation, sun shading and passive thermal design elements are the first step to creating a sustainable building solution. This is further enhanced by the inclusion of a water reuse system, solar power and long lasting, low maintenance materials. The structural system for the buildings is a mixture of concrete frame and steel framing. The benefit of these systems is that the internal walls are non-load-bearing, allowing for reconfiguration in the future if deemed necessary. The buildings have been optimised to facilitate good daylighting and natural ventilation.
Principle 3: Accessible and inclusive	The site has been designed to provide an accessible and inclusive ground plane such that buildings are all served by ramps and/or lifts. The design of the open space aims to provide walkway transitions between the various areas. This creates equitable access for all users. The site layout is clear and simple, promoting easy and direct circulation. This will be enhanced by clear wayfinding signage.
Principle 4: Health and safety	The design ensures that natural light, ventilation and acoustics create healthy and safe learning/teaching environments. The school site is to be fenced at the boundary as the perimeter security. The landscaping of the site and arrangement of the fence assist in integrating the school into the site and public domain. The primary and secondary entries are clearly visible nd are integrated into the sites context.
Principle 5: Amenity	The location and layout of the proposal provides a variety of teaching and learning spaces that have access to natural light and

SEPP	Comment
	ventilation and have good internal acoustics to facilitate comfortable learning environments. The typical learning clusters contain four homebases, a combined practical activity area with a shared learning common. In addition, a range of outdoor learning and play spaces are provided with the aim to encourage learning from the natural environments. The site massing locates the built forms adjacent to the streetscape to maximise the useable play spaces towards the centre and north of the site. This site planning places the buildings as a buffer between the public domain and the outdoor play space.
Principle 6: Whole of life flexible and adaptive	The key factors that ensure a building can be used well into the future are; • Long lasting, low maintenance materials to ensure its use stands up to the impacts associated with school buildings. • Framed construction that allows the internal walls to be reconfigured in the future to adapt to future learning requirements. • Providing a variety of learning spaces that have good amenity for the students and teachers.
Principle 7: Aesthetics	The school is designed to provide an articulated and dynamic built form which contextually responds to site, scale and massing. The pedestrian entry and urban marker for the site is bounded by Blocks A and B, which create a distinguishable break to the facade indicating it as the access point. The proposed school is two storeys with the exception of the hall. It wraps around a central playspace in a U shape form. The open covered connections create visual relief in the façade between buildings, whilst allowing daylight, breezes and visual connection to exist appropriately between the school and its surrounding context. A site narrative has been developed through the applied material palette, landscape design, signage and wayfinding strategy to include the local indigenous narrative, history and culture of the traditional Indigenous groups. These themes will be refined further at our next meeting with the relevant Aboriginal community members. The combination of the building forms and the landscape setting will provide a sense of identity for the neighbourhood and wider community

Clause 42 of the Education SEPP allows for a school SSD to contravene a development standard in the LEP. The proposal seeks to utilise this clause for the proposed height, which is slightly above the LEP's 8.5m control. Further discussion on this issue is provided in section 5.7.

Clause 57 of the Education SEPP requires that new school development resulting in an additional 50 or more students be referred to TfNSW for comment. This clause also

requires consideration of accessibility of the site and potential traffic safety, road congestion and parking implications. These matters are addressed at section 7.3 and in the Traffic Assessment at **Appendix 5a**.

5.6.2 Other relevant SEPPs

Other relevant SEPPs are addressed in the table below.

Table 5-3 SEPP assessment

SEPP	Comment
State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)	Clause. 15 of Schedule 1 of the SRD SEPP identifies that development for the purpose of a new school (regardless of capital investment value) is SSD. The proposal is for the purposes of a new school and is therefore classified as SSD.
State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)	No clauses of the ISEPP are directly relevant to the proposal. The development is not traffic generating development under Schedule 3 of the ISEPP and does not adjoin a classified road.
State Environmental Planning Policy No 64—Advertising and Signage (SEPP 64)	Two signs are proposed as part of the application. These signs are consistent with the aims of SEPP 64 in that they are compatible with the desired amenity and character of the area, provide effective communication in a suitable location and are of high quality design and finish. SEPP 64 contains no detailed controls directly applicable to the proposed signage, and consultation with TfNSW is not required given the size and location of the signage. An assessment against the general criteria in Schedule 1 of the SEPP is provided at **Appendix 23** of the EIS. In summary, the signage will have no adverse impacts in relation to character of the area; special areas; views and vistas; streetscape, setting or landscaping; site and building; associated devices and logos; illumination; or safety.
State Environmental Planning Policy No. 55 Remediation of Land (SEPP 55)	Clause 7 of SEPP 55 requires that the consent authority consider whether the land is contaminated and whether it is or can be made suitable for the proposed use. Contamination is discussed in section 7.14 of the EIS. The contamination assessment has concluded that the site is suitable for the use subject to implementation of standard mitigation measures including implementation of an unexpected finds protocol. No additional investigation is required.

SEPP	Comment
Draft State Environmental Planning Policy (Remediation of Land)	The Explanation of Intended Effect (EIE) for the draft SEPP was on exhibition from 31 January 2018 until 13 April 2018. The draft SEPP will retain the key operational framework of SEPP 55 and add new provisions relating to remediation works. The proposed new conditions are not relevant to the proposal given that no remediation works are proposed.
Draft State Environmental Planning Policy (Environment)	The draft Environment SEPP consolidates and simplifies seven existing SEPPs. The Explanation of Intended Effect (EIE) for the draft Environment SEPP was on exhibition from 31 October 2017 until 31 January 2018. None of the SEPPs to be consolidated are applicable to the proposal.
Draft State Environmental Planning Policy (Educational Establishments and Child Care Facilities)	An Explanation of Intended Effect has been exhibited for proposed changes to the ESEPP. The proposed changes focus on resolving operational issues, clarifying provisions and other housekeeping issues. The changes are not directly relevant to this SSD application.

5.7 Queanbeyan Local Environmental Plan 2012

The *Queanbeyan Local Environmental Plan 2012* (the LEP) applies to the site. The table below addresses key sections of the LEP. Discussion on the proposed height variation is provided below the table.

Table 5-4 Queanbeyan LEP 2012 assessment

Clause	Comment
Land use table	The site is zoned R1 General Residential. Educational establishments are currently prohibited in the zone. The proposal relies upon the Education SEPP for permissibility as discussed above.
Zone objectives	The objectives of the R1 zone are as follows: • To provide for the housing needs of the community. • To provide for a variety of housing types and densities. • To enable other land uses that provide facilities or services to meet the day to day needs of residents. • To ensure that buildings with non-residential uses have a bulk and scale that is compatible with the zone's predominantly residential character. • To promote walkable neighbourhoods and a sense of community.

Clause	Comment
	• To ensure that where possible, development maintains existing bushland. • To encourage medium to high density housing located in close proximity to the town and village centres. The proposal is consistent with the zone objectives in that it provides for a development that is compatible with the locality in terms of use and character; provides for a local school in a central location that will contribute to a walkable neighbourhood and sense of community; and includes adequate water supply and sewage systems. The proposal will also deliver a new school to meet local need as no public school exists in Googong.
4.1 Minimum subdivision lot size	LEP mapping identifies the site as subject to a 330m^2 minimum lot size control. The proposal includes no subdivision and therefore this clause is not relevant.
4.3 Height of buildings	An 8.5m building control applies to the site. The proposed maximum building height approximately 11.3m, which occurs at Building C. Further discussion is provided below this table.
4.4 Floor space ratio	No FSR control applies to the site.
5.1 Relevant acquisition authority	LEP mapping does not identify any part of the site as land reserved for public purposes.
5.10 Heritage conservation	The site is not identified as a heritage items and there are no heritage items within the vicinity. Similarly, the site is not located in a heritage conservation area.
5.11 Bush fire hazard reduction	The site is not identified as bushfire prone
7.2 Flood planning	The site is not identified as flood prone.
7.3 Terrestrial biodiversity	The site does not contain any areas of terrestrial biodiversity.
7.5 Scenic protection	The site is not identified as an area of scenic protection
7.6 Airspace operations	The proposed development will not penetrate the Limitation or Operations Surface
7.9 Essential services	The site is serviced by all essential infrastructure including water, electricity and sewage. Refer to section 7.15 and **Appendix 12** for details.

Building height variation

The proposal's maximum height is approximately 11.3m, which is 2.8m above the 8.5m control. A diagram showing the extent of the breach is provided below (a full-size version is provided in the Design Analysis Report at **Appendix 2**).

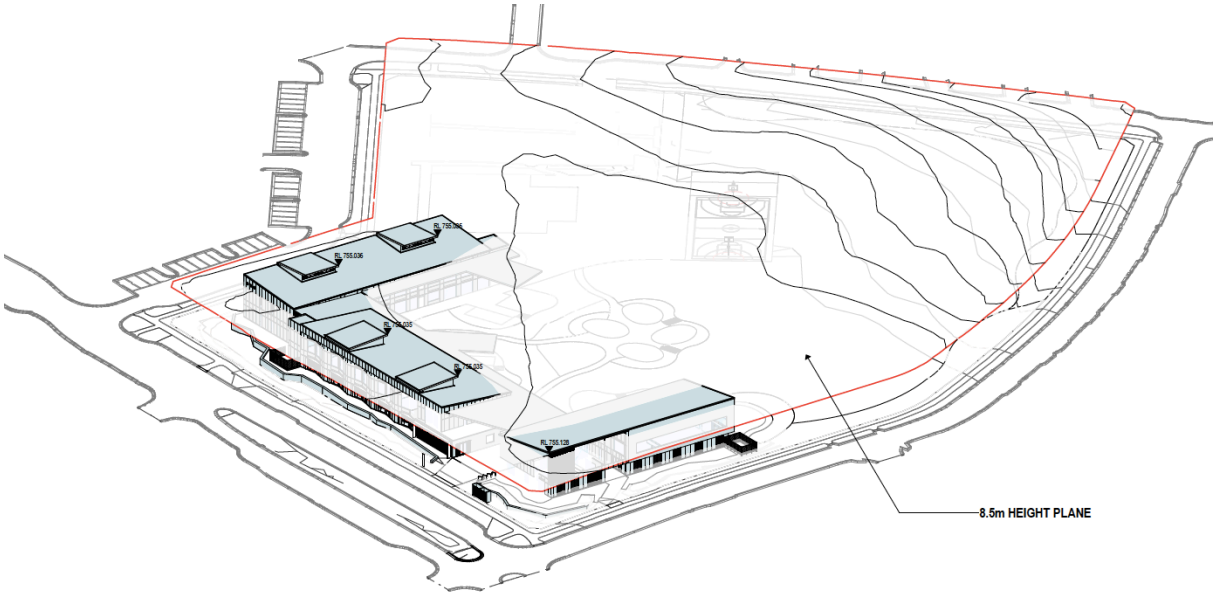


Figure 5-1 Height plane diagram
Source: Pedavoli Architects

The contravention occurs at Blocks A, B and C, and is limited to the roofing and the top portion of some of the building façade. The contravention is greatest at Blocks B and C over the area of the local depression.

Clause 42 of the Education SEPP allows for SSD for the purposes of a school to contravene a development standard in the LEP, and therefore a clause 4.6 variation request is not required in this case. Nonetheless, assessment of the proposed contravention has been carried out generally in accordance with clause 4.6, which requires a variation request to justify the contravention by demonstrating that:

- Compliance with the development standard is unreasonable or unnecessary in the circumstances of the case.
- There are sufficient environmental planning grounds to justify contravening the standard.

Compliance with the standard is unreasonable and unnecessary in the circumstances of this case because, notwithstanding the contravention, the proposal is consistent with the objectives of the standard, which are as follows:

(a) to ensure that the height of buildings complement the streetscape or the historic character of the area in which the buildings are located,

(b) to protect the heritage character of Queanbeyan and the significance of heritage buildings and heritage items,

(c) to nominate heights that will provide a transition in built form between varying land use intensities.

Consistent with the above objectives, the proposal:

- Complements the streetscape by providing two-storey built form that is compatible with the surrounding two-storey residential development and the neighbouring three-storey shop top housing.
- Does not adversely affect any heritage item (there are no heritage items in the vicinity).
- Provides for an appropriate transition in building height between the higher intensity commercial development to the west and the surrounding lower intensity residential development.

Compliance with the standard is also unreasonable and unnecessary because the existing 8.5m height standard does not clearly support the height control's objective of providing an appropriate transition between uses. As shown in Figure 5-2 below, the 12m height zone does not transition smoothly to the east away from the village centre. Instead, the 12m zone effectively wraps around the subject site, leaving the site as an anomalous 8.5m zone surrounded by a 12m zone to the north, west, south and partially to the east.

It is not evident, therefore, that strict compliance with the height standard would result in a better outcome in terms of height transition. In fact, the proposal's minor contravention of the height standard would arguably provide for a better height transition by allowing for a smoother height progression from the 12m zone at the village centre down to the 8.5m zone to the east/northeast of the site.

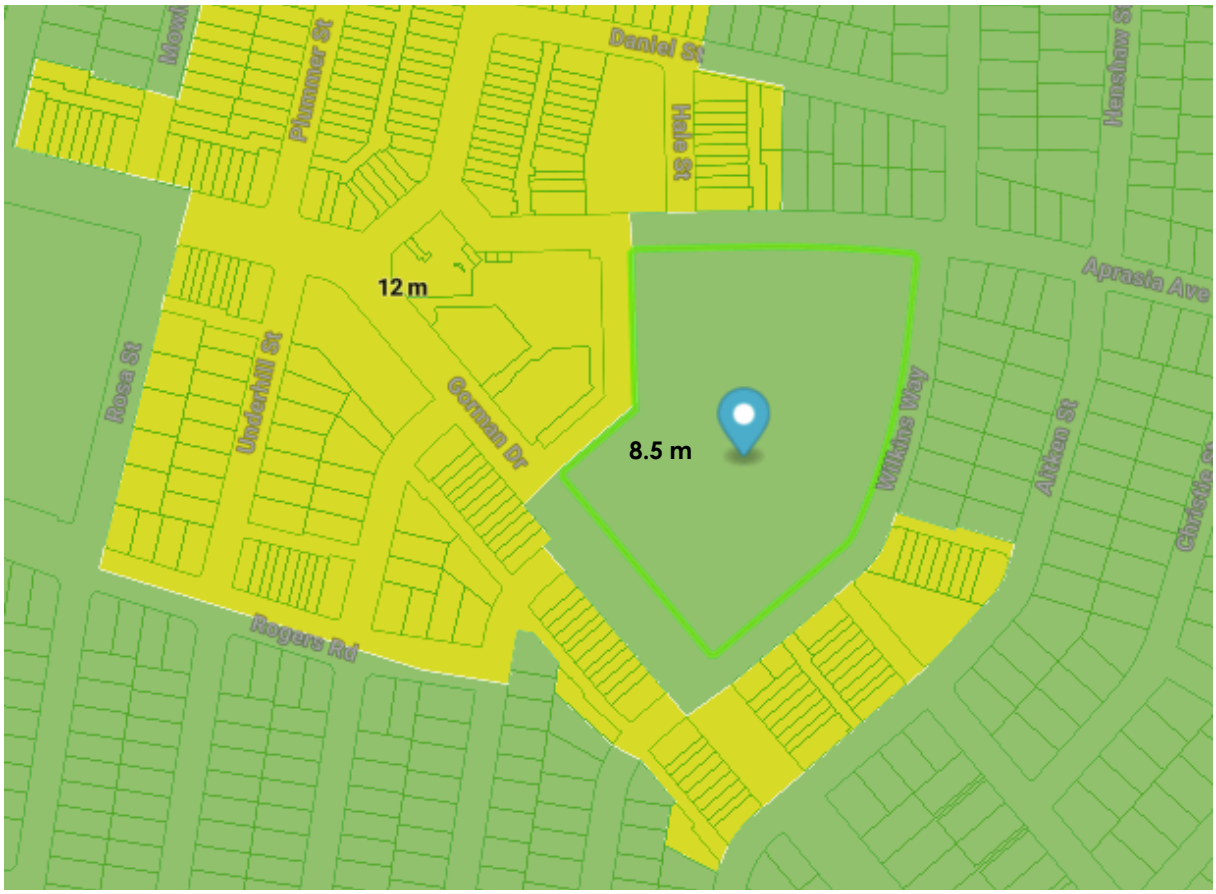


Figure 5-2 Maximum building height map
Source: Mecone Mosaic

There are sufficient environmental planning grounds to justify contravening the standard, as outlined below:

- The proposal will have no negligible overshadowing impacts (refer to section 7.2.1 for further discussion), and the contravention will accordingly result in no unacceptable additional overshadowing impacts.
- The proposal will have no result in no adverse privacy impacts (refer to section 7.2.2 for further discussion), and therefore the contravention will accordingly result in no unacceptable additional privacy impacts.
- The proposal will have no unacceptable view impacts (refer to section 7.2.3 for further discussion), and therefore the contravention will accordingly result in no unacceptable additional view impacts.
- The additional height does not form an abnormal protrusion but rather is integrated into the overall roof form.
- The additional height is appropriate in the context, being adjacent to three-storey development in the village centre.

5.8 Googong Development Control Plan 2010

Clause 11 of the SRD SEPP states that development control plans do not apply to SSD applications. However, the project SEARs require the application to address the Googong Development Control Plan 2010 (the DCP) as a relevant policy. Accordingly, an assessment against key relevant controls of the DCP is provided in the table below.

Table 5-5 Googong DCP 2010 assessment

Provision	Comments
Part 5 – Design Guidelines and Controls for Public Domain	
5.7 Educational establishments	
Sites for public schools must equate to at least one 3 hectare site for primary schools and one 9 hectare site for an integrated pre-school/childcare, primary and high school, unless otherwise agreed by the NSW Department of Education and Training. The potential sites for public schools are shown on the master plan and key community facilities plan. Alternate sites may be permitted subject to agreement with the NSW Department of Education and Training. School sites shall: 1) Be designed and built in accordance with current standards and guidelines from NSW Department of Education and Training or equivalent private education body. 2) Be located near other community facilities including childcare facilities, health centres, public open space and community sporting and other recreation facilities. 3) Be located on walking and cycling networks 4) Be located on a distributor or collector road and be well serviced by public transport, pedestrian and bicycle links. 5) Be relatively flat and free of possible restrictions such as power easements, contamination and environmental constraints.	**Complies** The DoE is progressing with the proposed primary school at the subject site, which provides for an area of approx. 2.81ha. The school site is located at the site nominated in Appendix 7 – Neighbourhood Structure Plan – Neighbourhood 1 Centre. The school will be designed and built-in accordance with current DoE standards and guidelines. The site meets the listed requirements as it: • Is located adjacent to the Googong North Village Centre (commercial development), Googong Community Centre and a child care centre. • Is located on Gorman Drive, serviced by bus route 837, and will connect to existing pedestrian and cycling infrastructure. • Is relatively flat, cleared and not notably affected by environmental constraints. • Features a dedicated kiss-and-ride zones, bus parking and onsite parking. • Is located above the 1 in 100 year flood level. The proposed school is consistent with the listed requirements in that it: • Will achieve high quality design achieved through consultation with

Provision	Comments
6) Have student drop off zones, bus parking and on street parking in addition to other street functions in abutting streets Educational establishments, community facilities and places of worship are to: 1) Be located above the 1 in 100 year flood level 2) Co-locate with appropriate facilities 3) Locate in or near activity centres to enhance community identity and create focal points in the development 4) Achieve high quality design that complements the existing and desired character of the surrounding area 5) Be designed so that the layout and built form minimises impacts on the surrounding residential area, in relation to parking, views, overshadowing and noise 6) Parking provisions for community uses are to meet the standard set out in DCP 1. Notwithstanding above, the overall parking rate may be considered by Council to be satisfied with a combination of onsite parking, communal car parks and on street parking where it can be demonstrated by a suitably qualified traffic consultant that there is sufficient public parking in the locality (as demonstrated by an empirical assessment).	traditional landowners, Council, the State Design Review Panel and a range of technical stakeholders. • Will be designed to minimise environmental impacts. • Will provide adequate parking as discussed in section 7.3 and **Appendix 5a**.
Part 10 Town Centre and Neighbourhood Centre Controls and Principles	
10.3 Neighbourhood Centres	
Controls: a) The neighbourhood centres are to be located generally in accordance with the Googong Master Plan and relevant Neighbourhood Structure Plans. Council shall not grant consent for any development other than development for the purposes of remediation, subdivision, site preparation, infrastructure and road works and	**Complies** The site is subject to the controls within Appendix 7 – Neighbourhood Structure Plan – Neighbourhood 1 Centre. Assessment against these controls is provided below.

Provision	Comments
environmental landscape works within the neighbourhood centres unless it is satisfied that more detailed development controls are in force in the form of a DCP Amendment – "Neighbourhood Structure Plan".	
Appendix 7 – Neighbourhood Structure Plans – Neighbourhood Centre 1	
2. Desired future character	
It is envisaged that Neighborhood Centre 1 be developed into a low-scale, mixed-use activity node, with an urban village character, that meets the day-to-day needs of the residents of the surrounding residential neighbourhood. To meet the day-to-day needs of local residents, the Centre shall provide for convenience retailing, as well as a mix of other specialty retail, professional and medical services, and child care and community facilities. Above-shop residential dwellings may also be provided to present the community with greater housing choice so as to cater to a more diverse mix of households. All development within Neighbourhood Centre 1 shall be of a form and scale that is complimentary to predominantly residential character of the surrounding area, sensitive to adjacent non-residential land uses, and appropriate for its prominent, elevated position. All components of the Neighbourhood Centre shall be of high architectural quality, with an appropriate palette of materials and colours used, and shall, together, achieve a high quality, sustainable urban design outcome. Street frontages shall be active, with shops addressing the street to create a sense of place, vibrancy and safety. Building facades shall be clearly identifiable from the street and internal shop facades or mall style developments are not encouraged. Public spaces shall have appropriate solar access, shall be landscaped and shall be provided with adequate street furniture and lighting.	**Complies** The proposal contributes to the creation of a low scale, mixed use activity node with urban village character. The proposal addresses and activates the street and features a high quality design with facades and entrances that are easily identifiable.

Provision	Comments
All development and open space/public domain areas shall be designed in accordance with the principles of Crime Prevention Through Environmental Design (CPTED) and Water Sensitive Urban Design (WSUD).	
4. Layout	
a) Buildings are to define the entry to adjacent residential and public open space areas, and are to be generally built to the street edge.	**Complies** The arrangement of the built form on the site has been designed to address and provide a street edge to McPhail Way to the west, Gorman Drive to the southwest and Wilkins Road to the southeast.
5. Built form	
Building Height	
c) Generally, buildings shall have a maximum of two storeys at the street boundary, with a 3m setback provided for the third storey. An exception to this requirement is buildings with a residential component, where buildings may have a height of three storeys (12m) at the street boundary so as to provide street definition and corner emphasis. Refer to Figure 2.	**Complies** The proposed buildings will have a height of two storeys fronting the street boundary.
d) There should be a transition in heights from the site to surrounding residential areas.	**Complies** The proposal proposes a maximum number of two storeys, similar to surrounding residential development and lower than that of the three-storey development in the Googong North Village Centre.
Setbacks	
a) The setbacks of buildings in Neighbourhood Centre 1 shall generally comply with Figure 3. Gorman Drive: 3m McPhail Way: 3m (No setbacks are specified for the other site frontages.)	**Complies** The proposal features the following setbacks: • Gorman Drive: 7.4m to 8.7m • McPhail Way: 8.8m to 9.6m
6. Building Design	

Provision	Comments
a) All buildings should feature articulated facades to create visual interest. This can be achieved through architectural treatments including stepped built form, emphasized entries, separation of the façade into sections by columns, windows and other vertical elements, incorporation of horizontal elements.	**Complies** The proposal features articulated building facades presenting to the street, which include a range of colours and materials, slightly angled walls, integrated landscape treatments and defined pedestrian access points to break up the bulk of the buildings.
b) Corners shall be clearly emphasized with architectural features or design elements such greater height, balconies or awnings.	**Complies** The corner of Gorman Drive and Wilkins way is emphasised by placing the main pedestrian entry at this location.
d) Openings, such as windows, shall be recessed, rather than being on the same plane as the main façade.	**Complies** Windows are generally recessed from the building façade.
h) Roofs design is to relate to the existing and desired neighbourhood character. Design solutions may include: • special roof features and strong corners; • use of flat, skillion or very low pitch hipped roofs; • breaking down the massing of the roof by using smaller elements to avoid bulk; • using materials or forms complementary to the desired adjacent buildings and village character	**Complies** The proposed grey, low-pitched metal roof is compatible with the existing metal roofs of surrounding residential and commercial development.
j) Plant equipment and other rooftop necessities are to be screened from view from the public domain	**Complies** No plant is proposed to protrude above the roof line.
n) The palette of materials and colours used on a building should be consistent with the surrounding neighbourhood, and respond to the commercial and/or community typology of the building.	**Complies** As discussed within the Design Analysis Report at **Appendix 2**, the colour and material palette has been chosen in response to the surrounding existing development and broader rolling hills and valleys.
o) Commercial materials such as composite aluminium cladding and concrete will be considered where they are appropriately articulated.	**Complies** Commercial materials such as aluminium cladding and concrete are considered acceptable given the nature of the site as

Provision	Comments
	a school and need for low maintenance costs. As discussed throughout this table, the design provides sufficient articulation and will provide for visual interest from the surrounding streetscape.
8. Solar Access	
a) Buildings within the Neighbourhood Centre shall not over-shadow more than 50% of adjacent public open space areas (not including footpaths) between 9:00 a.m. and 3:00 p.m. at the winter solstice (21 June).	**Complies** The proposal does not overshadow any public open space areas. Refer to section 7.2.1 for further discussion.
b) Buildings adjacent to residential areas are to comply with the over-shadowing controls for residential development contained within Sections 6 and 7 of the DCP.	**Complies** Given the proposal's height and setbacks, there will be no unreasonable adverse overshadowing impacts on surrounding residential development. Refer to section 7.2.1 for further discussion.
c) Shadow diagrams are to be submitted with any development application for buildings that are two storeys or greater in height.	**Complies** Shadow diagrams have been submitted with the architectural plans (refer to **Appendix 1**).
9. Safety and Security	
a) Buildings and public open space areas, including landscaping, shall be designed in accordance with the principles of Crime Prevention Through Environmental Design (CPTED).	**Complies** The proposal has been designed in accordance with the four key principles of CPTED including surveillance, access control, territorial reinforcement and space management. Refer to the Design Analysis Report at **Appendix 2** for further discussion.
10. Vehicular Access and Parking	
b) Vehicular access points are to be minimised to limit pedestrian/vehicle conflict.	**Complies** Vehicular access points are limited to the carpark located on the corner of Apraisia Ave and McPhail Way, away from proposed primary and secondary pedestrian access points.
c) Development should comply with the relevant controls of Part 2 of the	**Complies** As discussed within the Transport Assessment provided at **Appendix 5a**, the

Provision	Comments
Queanbeyan Development Control Plan 2012 (regarding car parking).	DCP recommends that reference is made to the State Environmental Planning Policy 2017; however, specific rates are not provided for schools. It is considered that the Education Facilities Standards and Guidelines (EFSG) is the appropriate guideline. Sixty car parking spaces have been provided in accordance with the EFSG.
12. Public and Active Transport	
a) Pedestrian paths are to be provided in accordance with Figure 6.	**Complies** The existing pedestrian paths constructed around the site will be maintained, and realigned to subject standards where required.

5.9 Development contribution plans

The proposal provides for social infrastructure on behalf of the Crown and therefore should not be subject to development contributions. This is consistent with the advice from DPIE in Circular D6 "Crown Development Applications and Conditions of Consent". This circular notes that Crown activities provide facilities which lead to significant benefits for the public in terms of essential community services and employment opportunities, and the activities are not likely to require the provision of public services and amenities in the same way as development undertaken with a commercial objective.

The circular recommends that, where the applicant is a Crown authority and the development is for educational services, no contributions should be collected for open space, community facilities, parking, and general local and main road upgrades.

Furthermore, the Googong Section 94 Contributions Plan 2015, which applies to the site, generally only relates to residential development. The plan notes:

> *The need for the public amenities and services included in this plan either directly or indirectly arises from the residential development that is expected to take place in the Googong New Town. There will be some non-residential development in the area, such as retail and commercial uses in the town centre, but this development will take place so as to serve the new residents of Googong.*
>
> *Unless specifically stated otherwise, no contribution will be levied on commercial, industrial and retail development for providing community and public open space facilities.*

The proposal is not for residential development and provides for a community facility in the form of a new primary school. Therefore, the proposal should be excluded from contribution requirements under the plan.

5.10 Additional approvals required

Kerb realignment is required along Aprasia Avenue and Gorman Drive to facilitate the proposed kiss-and-ride areas and bus stop. Additionally, a driveway crossover to the proposed car park is required, as well as pedestrian crossings. However, consent from the roads authority under Section 138 of the *Roads Act 1993* (Roads Act) is not required because, pursuant to Clause 5 of Schedule 2 of the Roads Act, the applicant is a public authority and the affected roads are not classified or Crown roads.

No requirements for other approvals have been identified at this stage. It is noted that section 4.41 of the EP&A Act identifies a number of approvals that do not apply to SSD applications.

5.11 Development servicing plans

The site is subject to the Googong Development Servicing Plans for Water Supply and Sewerage (2015/2016).

Under Section 306(4) and (5) of the *Water Management Act 2000*, the Minister for Planning may decide in regard to developer charges levied on Crown Developments. Given the proposal is a Crown Development for essential community services, it is requested that the proposal be exempt from developer charges for water and sewerage.

6 Consultation

Consultation has been undertaken in accordance with DoE's consultation policy (Planning and Delivery School Infrastructure NSW Public Consultation Policy), which provides a framework to actively engage the community and other stakeholders in relation to the planning of major projects.

A comprehensive Consultation Report is attached at **Appendix 21** of the EIS. Key consultation activities and outcomes are outlined in the subsections below.

6.1 Community engagement

DoE conducted the following community engagement activities prior to lodgement:

- A media release was issued in May 2020.
- Planning updates were uploaded to the SINSW Googong webpage in May 2020, August 2020, October 2020, November 2020, March 2021 and April 2021.
- An information hub was established at the new school site in October 2020 to better understand community aspirations and capture community feedback. A total of 393 respondents provided feedback through an online survey. Key findings from the survey included:
    - Responders felt extremely positive about the proposal to build a new primary school in Googong, noting it would provide a positive contribution to the local community.
    - Sustainable design is a high priority for the community, closely followed by out of school hours after care and easy accessibility.
    - The timeline for construction is considered top priority for respondents, followed closely by effective use of space.
    - Technology, activity spaces and sustainability were the three most important things for a new school design.
    - Covered outdoor learning areas are the most important element of outside school space, followed closely by activity spaces.
- A two-page project update was distributed to the letterboxes of 3,000 local residents and shared through social media and website channels.

6.2 Public authority engagement

6.2.1 Government Architect NSW

The proposed design was presented to the SDRP on 28 April 2021, and the panel subsequently provided written comments on 6 May 2021. These comments are directly addressed in the table below.

Table 6-1 GANSW engagement outcomes

Issue raised	Response
Connecting with Country	
The initial engagement with local community groups has provided valuable and significant input into the design of the masterplan and is commended. This process of engagement with local Aboriginal community members should be extended to include students and teachers who will be the users of the school to ensure there is a culture that supports these design initiatives.	Noted.
Develop a strategy for embedding what is learnt, including how to manage knowledge that is shared, how to demonstrate a response to that knowledge through the project and how to 'report back' – a continuing relationship. Refer to the draft framework Connecting with Country on GANSW website.	See Key Consultations on page 15 and Design Principle "Connecting to Country" on page 16 of the Design Analysis Report at **Appendix 2**, which respond to this item.
It is noted that this site, with its proximity to the Snowy Mountains and the seasonal ceremonial practices that would have happened there, is part of a complex network of people and languages that would have shared this country. This multiplicity is part of the richness of the landscape and as such there are many truther. The Strategy should respond to this and work to incorporate this knowledge.	As the design continues to develop and further consultations take place, the design team will continue to seek to integrate the multiplicity of narratives that exist in the area into the design. See Key Consultations on page 15 and Design Principle "Connecting to Country" on page of the Design Analysis Report at **Appendix 2,** which respond to this item.
The naming of the natural features of the site is supported to celebrate the school's identity and provide pedagogical opportunities.	Noted.
The function of yarning circles needs to be fully considered and their careful placement in the landscape should support this. The space under a tree or a sheltered clearing could provide a similar function.	See the landscape report and documentation at **Appendix 3**.
Masterplan and Landscape	

Issue raised	Response
Explore the opportunity to re-introduce endangered endemic ecology on the site as way of caring for country. Native grasses could be used to break up the scale of the vast site to the east.	See the landscape report and documentation at **Appendix 3**.
Consider how fauna such as crows, eagles and black cockatoos can be encouraged back to the site with planting or other methods.	See the landscape report and documentation at **Appendix 3**.
Investigate opportunity for proposed deciduous trees to be native species. Consider how shade has been sought and provided for traditionally on the site.	See the landscape report and documentation at **Appendix 3**.
The allowance of areas for structured play and nature play is supported. The main quadrangle should be designed to accommodate different aged student groups, allowing them a sense of ownership over their age-group space.	Noted.
Circulation diagrams are required to understand the movement around the campus including the carpark and bicycle parking area. There could be a conflict between the movement of teachers and students arriving by bicycle in peak times.	Please see circulation diagram on page 24 of the Design Analysis Report at **Appendix 2**, which responds to this item
There is a potential conflict in the movement around the canteen and the hall entry. Reconfigure or indicate on circulation diagrams proposed pathways around these high traffic destinations. Consider how a greater volume draws people into the space.	See the architectural site plan at **Appendix 1**, which shows the adjustment in the location of the canteen. See also the circulation diagram on page 24 of the Design Analysis Report at **Appendix 2**. There are multiple proposed access routes between the car park and the hall to the main circulation spine connecting all buildings.
The site sits within the centre of Googong and provides a valuable green resource in this suburban context. Indicate which parts of this green space are available to the greater community.	At this point in the project there are no shared use agreements. The design and location of the hall, carpark and the open space has considered the potential for future potential shared use agreements.

Issue raised	Response
The north west corner of the school with its proximity to the village centre suggests a public presence that integrates with the community. Consider how the homebase buildings and setback can respond to this.	The direct adjacency to the school on McPhail Way is carparking for the shopping centre. The design has created street address to the road edge. The hall (block D) is located on this edge, acknowledging access from the village centre facilitating the potential for shared use.
The building setbacks should respond to the hierarchy and character of each street. These setbacks can be further articulated by defining which edges of the school require a civic presence and which need to be buffered from the street.	See architectural site plan at **Appendix 1** that shows a generous setback from Wilkins Way, which has the narrowest road and lowest scale residential adjacent. The northern portion of this road as well as Aprasia Avenue, which also is adjacent to low density residential, are designed as the outdoor play space and the school car parking. This provides a positive outlook for the adjacent houses. The main building form addresses Gorman Drive as the school entry, and the setback treatment is designed to respond to this address.
Provide a clear strategy which outlines how the school facilities will be shared and afterhours access.	The school hall and outdoor playing courts/fields have been located in such a way to allow for the potential of future shared uses. Shared use agreements have not been established with the school yet.
Indicate the extent of fencing and limit fencing to only where required, using the edge of buildings, landscape elements and low-rise fencing where possible.	See the fencing plan at **Appendix 1** for details. A perimeter fence is required by the school's security unit. The fence line has been articulated where possible to provide landscaping to the roadside of the fence.
The landscape strategy is well considered and supported providing for a place-based response and the site-specific integration of this modular building. Ensure that this landscape response is not compromised through the cost planning process.	Noted.
Consider increasing planting in the area identified for future expansion of the school.	See the landscape report and documentation at **Appendix 2**.
Investigate if adjacent car parking can be used to leverage the requirements of parking on this site.	Noted.

Issue raised	Response
Carparking should be considered as part of the landscape with expanses of bitumen to be avoided.	See the landscape report and documentation at **Appendix 2**.
Clarify the catchment area for students and the associated transport plan.	Please see catchment areas and transport plan provided at **Appendix 5a**.

6.2.2 Queanbeyan-Palerang Regional Council

Meetings with Council officers/TfNSW were held on 18 January 2021, 15 March 2021, 23 March, 30 March and 29 May 2021. Key issues discussed included traffic and transport opportunities and constraints; location of the bus stop and kiss-and-ride zones; staff car parking location and quantity of spaces; joint use opportunities; local school benchmarks; and open space and landscaping. The final site plan was shared at the 29 April meeting.

Council also provided comment during the SEARs request process. Response to these comments is provided in the table below.

Table 6-2 Response to Council SEARs comments

Comment	Response
1. The Transport and Accessibility impact assessment. In particular Council ask that the SEARS address: • Whether the size of the streets and intersections around the school allow for the safe manoeuvring of school buses. • Suitably locating kiss and drop areas for students. • Suitably locating bus drop off and pick up areas. • Pedestrian movements around the school and particularly its interaction with movements to and from the adjacent neighbourhood shopping centre. • Providing sufficient parking for school staff to park on site.	A Transport Assessment addressing the requested items is provided at **Appendix 5a,** and a summary of the key points from the assessment is provided at section 7.3 of the EIS. The assessment shows that, under the future 2033 scenario with background growth, the surrounding road network will have ample spare capacity.
2. Council is the water and sewer authority for Googong and as such it should be noted in the SEARs that for	Noted.

Comment	Response
any approvals and inspections related to water and sewer, Council will be the responsible authority.	
3. Consultation – The SEARs should specify that the Department undertake direct consultation with the neighbouring residents. This would be a standard expectation of those adjoining the site.	DoE has carried out consultation with neighbouring residents as outlined in 6.1 and the Consultation Report at **Appendix 21**.

6.2.3 Transport for NSW

As noted above, TfNSW participated in the multiple meetings with Council. Traffic matters were discussed in detail over the course of the meetings.

7 Assessment of key issues

This section contains an assessment of the key issues identified in the project SEARs. It is informed by, and should be read in conjunction with, the specialist reports and drawings appended to the EIS.

7.1 Built form and urban design

7.1.1 Methodology

A Design Analysis report by Pedavoli Architects is attached at **Appendix 2**. The report explains the proposal's design rationale based on analysis of the site and context, and provides comment on the proposal's consistency with relevant guidelines and principles. Key points from the report are outlined below.

It is noted that section 3.3 of this EIS contains a description of the proposal's' layout, height; bulk and scale; density; setbacks; facade and articulation; external finishes and materials; relationship to surrounding development, topography and streetscape; and access to daylight, ventilation and acoustic separation.

7.1.2 Existing environment

The site is located in an urban setting and is surrounding by a mix of uses and development types including one- and two-storey attached and detached dwelling houses, the two-storey Googong Community Centre and Hope Christian Church, and the three-storey Googong North Village Centre. Two parks are located adjacent to the site, namely Lovegrove Park on Aprasia Avenue and Hopper Park on Wilkins Way.

7.1.3 Impacts

The proposal will contribute positively to the built form of the area in the following manner:

- The proposal features a high-quality contemporary design that fit for purpose and complementary to the local character.
- The proposed two-storey form is compatible with the surrounding two-storey residential development and three-storey shop top housing in the shopping centre to the west.
- The proposal's layout includes breaks between volumes to provide visual articulation.
- The proposal utilises extensive landscaping to enhance the streetscapes along Gorman Drive, McPhail Way, Wilkins Way and Aprasia Avenue.
- The material and finishes complement the landscape and are based on a desaturate palette, reflecting the tones of the surrounding landscape.

- The landscape design acknowledges the history and the local site context as an integral part of the site planning. It provides spaces that encourage interaction between learning areas and equal access to all areas of the site.

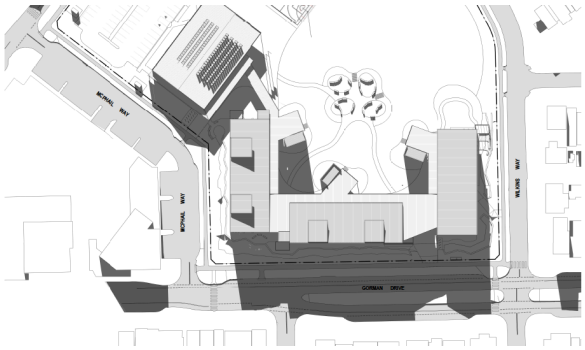
7.2 Environmental amenity

7.2.1 Overshadowing

The proposal will cause no overshadowing to surrounding public open space and only minor overshadowing to some surroundidng dwellings.

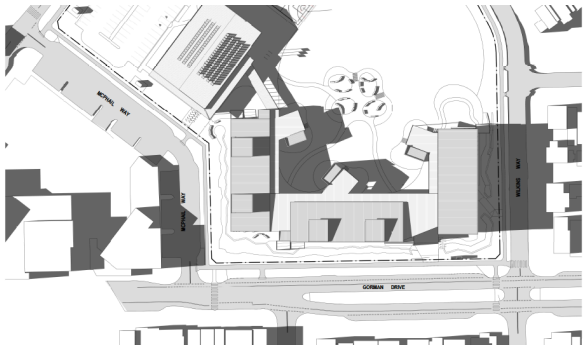
As shown in the mid-winter (worst case scenario) shadow diagrams below, Blocks A, B and C will cause minor overshadowing to the front yards of dwellings along Gorman Drive, but, given the school buildings' large setbacks and low height, the overshadowing cease shortly after 9am, with the overshadowing well removed from the yards by 12pm. This overshadowing is considered acceptable given it is minor extent and given the dwellings will still receive more than three hours of sunlight to at least 50% of private open space areas, consistent with the DCP.

By 3pm, Block B will cause minor overshadowing of the front yards and side facades of the dwellings at 261 Gorman Drive and 2 Percival Road, and minor overshadowing of the front yard and front façade of the dwellings at 4 Wilkins Way. This overshadowing is considered acceptable given the dwellings will receive solar access to their private open spaces and livigbetween 9am until after 12pm, which is more than the minimum of three hours required by the DCP.



9am, 21 June

12pm, 21 June



3pm, 21 June

Figure 7-1 Shadow Diagrams
Source: Pedavoli Architects

7.2.2 Visual privacy

The proposal will result in no unreasonable privacy impacts for the following reasons:

- The proposed buildings provide adequate setbacks from all boundaries, including a 40m+ setback from the Aprasia Avenue, an 8.8m setback from McPhail Way, an 8.6m setback from Gorman Drive and a 10.4m setback from Wilkins Way.
- The site is surrounded on all boundaries by road reserves (ranging between 17m to 32m wide), and the proposed building heights are limited to two storeys.
- Large native canopy trees will be provided to all boundaries, enhancing privacy between the school and surrounding development.

7.2.3 View impacts

Methodology

Assessment of view impacts has been undertaken by Mecone supported by 3D renders of the proposal prepared by the architect.

Existing environment

The site is situated in the township of Googong. The township is a newly developed area, with planning beginning in the 2000s and the first residents taking up residence in 2014.

The surrounding built context includes one- and two-storey residential development along Aprasia Avenue, Wilkins Way and Gorman Drive. Opposite McPhail Way to the west is a community centre, child care centre, church and a shopping centre including three-storey shop top housing.

The surrounding landscape is a key feature of the Googong township. The visual catchment generally consists of urban development in the foreground and farmland and/or hillly terrain in the background. The most prominent hills are those to the east which rise sharply on the opposite side of Googong Reservoir.

The site itself has broad frontages to Aprasia Avenue, Wilkins Way, Gorman Drive and McPhail Way, and is easily visible from these surrounding streets. However, the site is not located on a ridge, knoll or other local high point, and is therefore not readily visible from the broader locality.

Looking north, south and east across the site, views generally consist of residential development in the foreground and hilltops in the background/along the horizon. The hilltops are most visible in views to the east as described above. Looking to the west across the site, views generally consist of village centre commercial development in the foreground.

Photographs of the existing visual catchment seen from the streets surrounding the site are provided below.

Figure 7-2 Looking SE across the site from Aprasia Ave
Source: Google

Figure 7-3 Looking S along McPhail Way frontage
Source: Google

Figure 7-4 Looking N from Gorman Dr frontage
Source: Google

Figure 7-5 Looking NW from Gorman Dr/Wilkins Way intersection
Source: Google

Figure 7-6 Looking W from Wilkins Way frontage
Source: Google

Impacts

The architect has prepared a number of 3D renders to assist in understanding the visual impacts of the proposal. These are shown in the figures below.

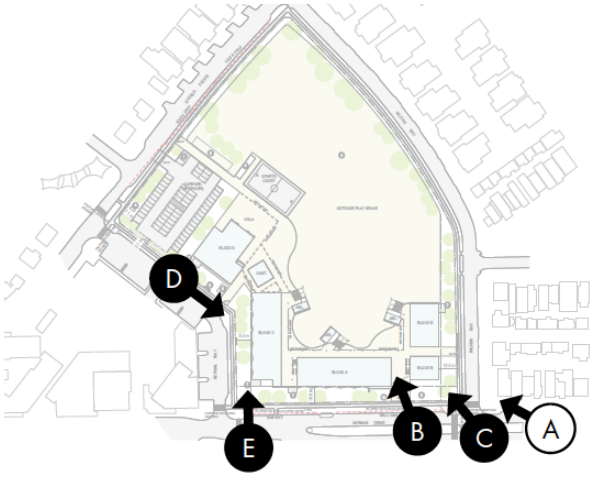


Figure 7-7 3D render key
Source: Pedavoli Architects

Figure 7-8 View A – Looking N from corner of Gorman Dr and Wilkins Way
Source: Pedavoli Architects

Figure 7-9 View B – Looking towards school entry from Gorman Dr
Source: Pedavoli Architects

Figure 7-10 View C - Looking towards main school entry
Source: Pedavoli Architects

Figure 7-11 View D – Looking towards Block C from McPhail Way
Source: Pedavoli Architects

Figure 7-12 View E – Looking NE from corner of Gorman Dr and McPhail Way
Source: Pedavoli Architects

Commentary on the above views is provided in the table below. In summary it has been found that the proposal will result in no significant or unreasonable impacts on views. The proposal's scale is appropriate to the context, and the proposal will introduce new high quality built form and landscaping that will contribute positively to the streetscape and local views.

Table 7-1 View analysis

View	Analysis
A – Aerial view looking north over the site from the corner of Gorman Drive and Wilkins Way.	This view demonstrates that the proposal will sit comfortably in the local context. The proposed built form appears similar (or even lower) in scale to the neighbouring village centre. The buildings effectively appear as an extension of the village centre surrounded by more fine grain residential development.
B – Looking northeast from Gorman Drive	View B looks northwest from Gorman Drive towards the main pedestrian entry point for the school. It is apparent that the two-storey built form is appropriately set back from the road, providing a positive street address while allowing for suitable landscaping in the setback zone. Distant views are partially obscured by the proposed build form along Gorman Drive, but the proposed breaks between blocks allow for glimpses through to the hills.
C – Looking north from the corner of Gorman Drive and Wilkins Way	Given that the topography rises to the northwest, the hilltops are not readily visible from this viewpoint, and

View	Analysis
	therefore Block B will not obscure distant views when seen from this location. This view shows the positive address the school has to Gorman Drive and Wilkins Way, with the primary entry clearly identifiable by the break between Blocks A and B. This address clearly distinguishes the school's function in the community from the neighbouring residential area, while being of a similar two-storey scale.
D – Looking southeast along the McPhail Way frontage	View D looks south along Mcphail Way towards Block C. The scale of the building is similar to the village centre to the west. Distant views to the hills from this view point are obscured, but this is considered acceptable given the proposal's low scale and appropriate setbacks.
E – Looking northeast from the corner of Gorman Drive and McPhail Way	This view is towards Block C from Gorman Drive. It shows the positive streetscape created by the two-storey built form, which is appropriately scaled for the primary road and neighbouring village centre. The proposed landscaping within the building setback zone creates a positive pedestrian street setting. Distant views to the hills beyond are obscured by the proposed built form, but this is considered acceptable given the proposal's low scale and appropriate setbacks.
General comments	Surrounding properties currently benefit from views over the site to the distant hilltops, particularly to the south and east. However, these current views primarily exist due to the undeveloped nature of the site. New built form may obscure some of these current views, but this should be expected as the site is planned for urban development with two-storey height limit. Also, the proposal will introduce high quality built form and dense landscape plantings that will provide a positive near view of the site compared to the currently vacant site. It is also noted that the proposed built form will be concentrated in the southern portion of the site, while the car park and outdoor play area will be located in the northern portion. This arrangement ensures that many of the prominent views over the site from the north/northwest towards the east/southeast will be retained.

7.2.4 Lighting

An external lighting strategy has been developed for the proposal. The implementation of a new exterior lighting design will be in accordance with the following Australian Standards:

- AS/NZS 1158:2005 Lighting for the roads and public places.
- AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.

The design will consider surrounding properties and residents and work to mitigate the negative effects of this through careful and considered selections of luminaires and control strategies, appropriate lighting levels and lighting locations.

The exterior lighting will also consider crime prevention by providing a cohesive system with robust luminaires that is compatible with security requirements.

For further detail, refer to the external lighting strategy within the Design Analysis Report at **Appendix 2.**

7.2.5 Wind

The site is located in a village context and is not known to suffer from any acute or unusual wind impacts. Given the low height of the proposal and lack of known current wind issues, it is considered that the proposal will not result in any unacceptable adverse wind impacts. Specialist assessment is considered unnecessary.

7.3 Transport and accessibility

7.3.1 Methodology

A Transport Assessment prepared by Ason Group is attached at **Appendix 5a**. The report analyses the existing transport network; assesses the potential traffic impacts associated with the proposed development during the construction and operation phases; assesses the suitability of the development's access, internal circulation and servicing arrangements; and recommends measures to ameliorate any adverse impacts.

The report utilises SIDRA analysis to determine potential traffic impacts. Traffic count surveys were undertaken on Tuesday 27 April 2021.

7.3.2 Existing environment

Existing access and surrounding road network

The site is surrounded by four local roads, namely Gorman Drive, Aprasia Avenue, Wilkins Way and McPhail Way. Gorman Drive connects to Old Cooma Road, an arterial road providing connection to Queanbeyan and the broader region. The surrounding road network is illustrated in Figure 7-13 below.

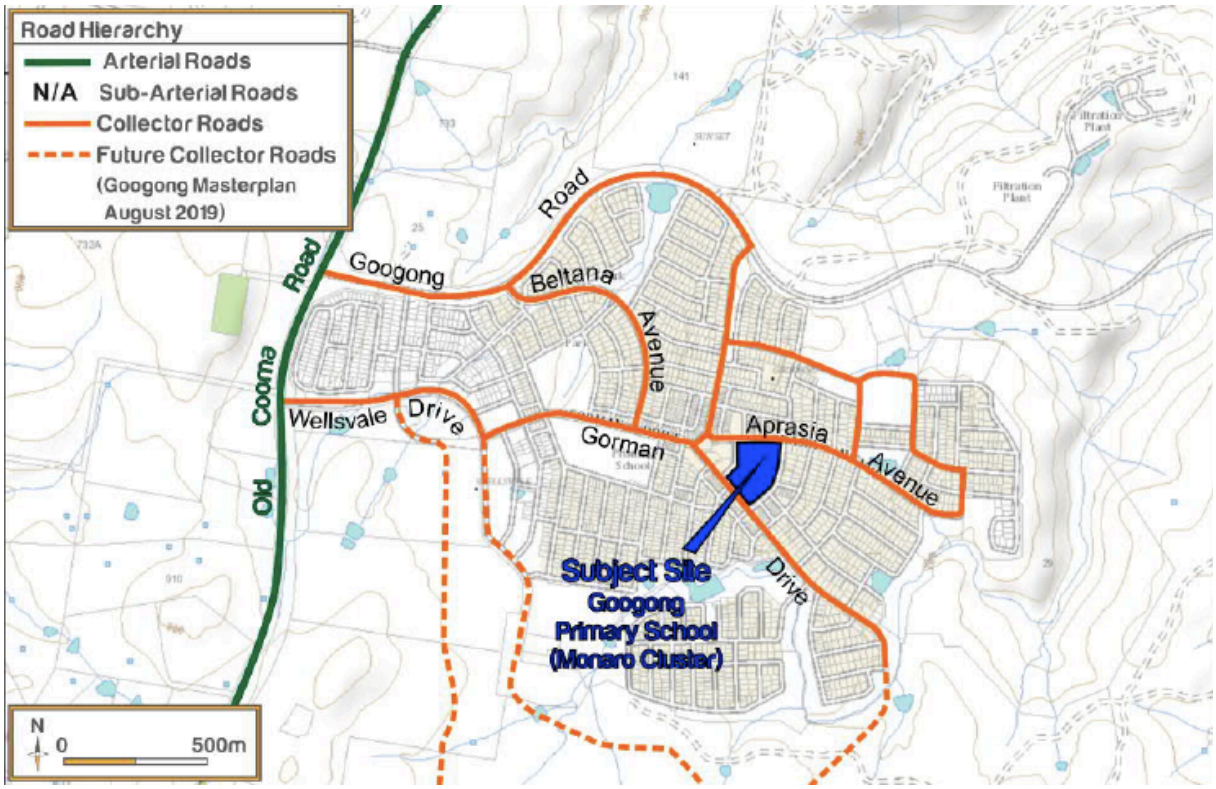


Figure 7-13 Road hierarchy
Source: Ason Group

Existing traffic conditions

Traffic count surveys were undertaken on 27 April 2021 from 6am to 10am and from 2pm to 6pm at the four intersections bordering the site:

1. Gorman Drive/McPhail Way.
2. Aprasia Avenue/McPhail Way.
3. Aprasia Avenue/Wilkins Way.
4. Gorman Drive/Wilkins Way/Helen Circuit.

SIDRA analysis has shown that the existing level of service (LoS) at these intersections is Level A (good operation) or better.

Existing public transport

The Googong locality has a high dependency on private vehicles. Given the high population growth experienced within the town, it is expected that additional public transport services will be available in the future. Currently there is only one bus route (837 Googong to Queanbeyan via The Anglican School), which runs between Googong and Queanbeyan twelve times a day and between Queanbeyan and Googong four times a day. There are two bus stops located on Gorman Drive in close proximity to the site. The eastbound bus stop is directly adjacent Hope Christian

Church, and the westbound bus stop is located on the southern side of Gorman Drive south of the McPhail Way intersection.

Existing pedestrian and bicycle infrastructure

Established as part of the Googong development, the pedestrian network provides comprehensive coverage of the township, as shown in Figure 7-14 below.

Footpaths of good condition immediately border the four frontages of the site along Gorman Drive, Aprasia Avenue, McPhail Way and Wilkins Way. At the majority of intersections, the footpaths transition to kerb ramps to facilitate access across the roadway.

Existing cycling infrastructure includes the on-road dedicated bicycle lane on either side of Gorman Drive. These routes travel along the length of Gorman Drive from Wellsvale Drive in the west to Bobby Street to the east. Besides the existing pedestrian network, no other formal cycling infrastructure is provided. This infrastructure is considered of a high enough quality and standard to cater for the needs of children who ride a bicycle or scooter.

Figure 7-14 Pedestrian and key path locations
Source: Ason Group

7.3.3 Traffic impacts

Traffic generation

Based on the averages of surveyed rates of similar schools in Sydney by TfNSW, it is estimated that the school will generate 269 trips during the AM peak hour and 157 trips during the PM peak hour. The majority of the trips will occur at the kiss-and-ride areas.

Intersection performance

Traffic impacts have been modelled using SIDRA to determine the proposal's potential impacts on the surrounding intersections. The modelling considers the scenario of a completed school in 2023 as well as a future 2033 scenario. The

modelling results are provided in tables 13-16 of the traffic report. Key findings are summarised below:

- The key intersections analysed are anticipated to perform at good levels of operation during the school morning and afternoon peak periods if there was no school development.
- For the 2023 year and 2033 year with 2% compounded growth, the key intersections will operate with ample spare capacity and a 95th percentile queue of 7.9m (during the morning school peak of the 2033 horizon year at the Aprasia Avenue/McPhail Way intersection). The level of service at all intersections will remain at A.
- The degree of saturation levels at all intersections are well below 1 in the 2023 and 2033 plus background growth scenarios, indicating the network is operating under capacity.

Impacts of kiss-and-ride

The potential impacts of the kiss-and-ride areas have also been assessed. Assuming these areas are managed and time-restricted to a maximum of two minutes per vehicle (to be implemented in the School Travel Plan), it is estimated that, over a 45-minute period during the pick-up and drop-off times, the areas can accommodate a total of 473 vehicle movements, which is considered sufficient capacity for ensuring the kiss-and-ride areas do not adversely impact the adjoining road network.

An on-site kiss-and-ride option was considered in detail but was ultimately deemed unviable as it would require removal of significant canopy trees and result in the loss of up to 2,700m^2 of play space. Refer to section 9.2.4 of the Traffic Assessment for further discussion.

7.3.4 Parking

Car parking

A total of 60 onsite car parking spaces are proposed. This parking fully meets staff requirements in accordance with SINSW guidelines.

The car park will be accessed from Aprasia Avenue via a two-way driveway. Parking within the car park will be restricted to staff only.

The travel path and swept path of service vehicles to, through and from the staff car park and service area is provided in Appendix B of the Transport Assessment.

The parking spaces have been assessed and found to be generally compliant or capable of complying with the minimum requirements of AS2890.1.

Bicycle parking

Council's DCP does not specify bicycle parking rates for schools, and therefore the proposal provides 60 bicycle parking spaces in accordance with the EFSG. The

spaces are split into two areas, with 40 adjacent to the car park and 20 adjacent to Block D along McPhail Way.

7.3.5 School Travel Plan

A Preliminary School Transport Plan (PSTP) is attached at **Appendix 5b.** The purpose of the PSTP is to propose a series of operational arrangements with the intention to drive modal share towards active and public modal measures and achieve mode share targets. A summary of the operational improvements are suggested below:

- Education initiatives such as road awareness/safety, independent travel.
- Advocate TfNSW to improve public transport services in response to increased development.
- Promote use of public transport for students with a rewards scheme.
- Liaise and discuss with TfNSW the feasibility of providing bus services for students outside of the 2.3km driving distance from the school.
- Potentially introduce and enforce of parking restrictions around the school. This is to be discussed and implemented in collaboration with Council's road safety officer.
- Manage kiss-and-ride area so that vehicles stay a maximum of two minutes.

In addition to the above, the PSTP makes reference to a variety of key infrastructure changes in the locale relating to the provision of bus services, as well as the inclusion of key pedestrian crossings to improve site connectivity and amenity.

7.3.6 Construction traffic management

A Preliminary Construction Traffic Management Plan (PCTMP) has been prepared by Ason Group and is provided within the Transport Assessment. The report outlines principles that shall be adopted by the appointed contractors for the project and is subject to a detailed CTMP that forms part of a Construction Management Plan (CMP) to be prepared and commissioned by the incumbent contractor. Key items from the PCTMP are outlined below.

Construction vehicle routes and access

It is proposed that construction vehicles enter and exit the site via the routes shown in Figure 7-15 below.

The access and egress routes will be utilised by all construction vehicles associated with the site and represents the shortest route between the local and regional road network, thereby minimising the impacts of the construction process. No trucks will be queued on local roads, with mobile phones and two-way radios will be used to coordinate truck arrivals.

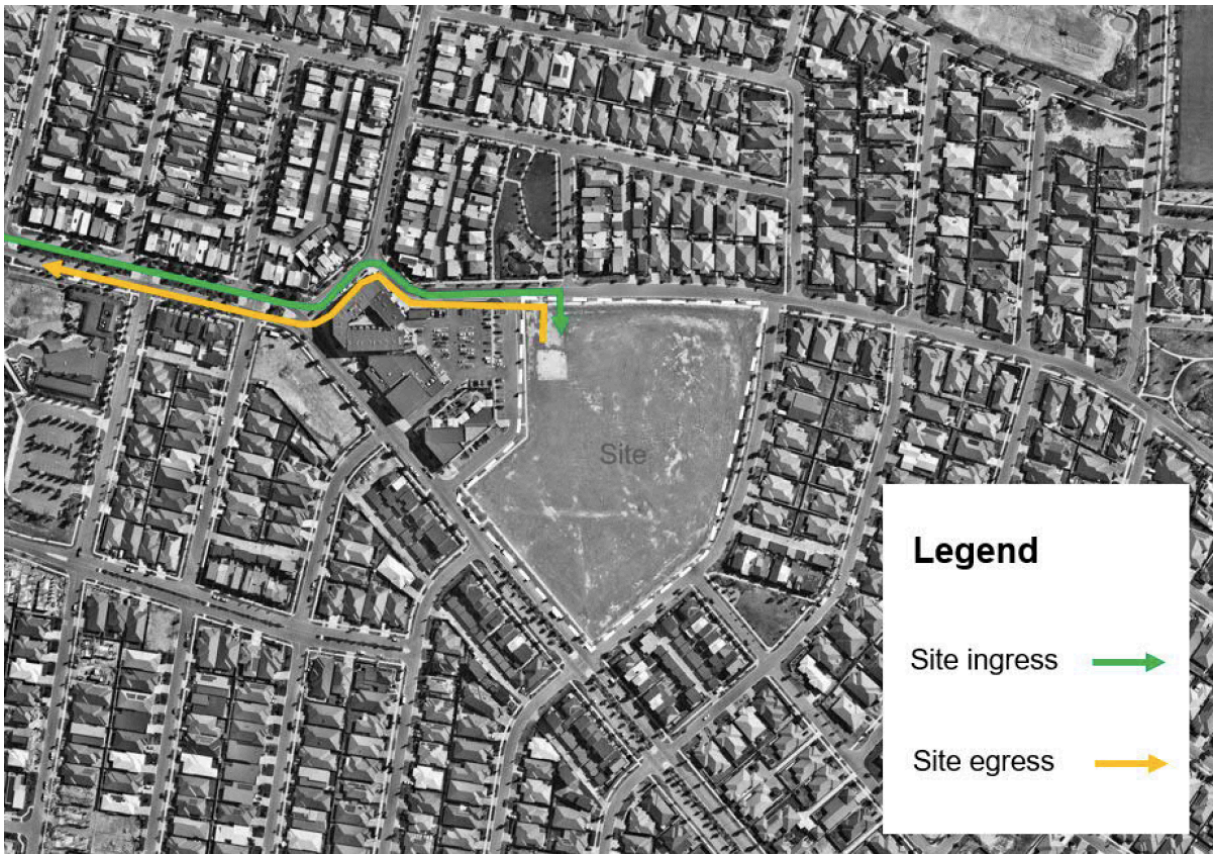


Figure 7-15 Construction vehicle haulage routes
Source: Ason Group

Work zones

No work zones will be required for the main works. The construction vehicle manoeuvres will have no material impact on the intersection performance as heavy construction vehicles access and deliveries are required to be scheduled outside of the peak periods and school pick-up/drop-off times.

In this regard, construction activity during peak period will be limited to general vehicle movements and will not compromise the existing traffic performance.

When required, a traffic guidance scheme for details of the proposed work and associated traffic management measures will be provided.

Traffic control measures

It is required that authorised traffic controllers to be present throughout the demolition, and construction stages of the project.

Pedestrian management

During construction, pedestrian movements will be maintained along all frontages of the site when possible. This includes maintaining access needs and requirements for pedestrians to/from the Googong North Village Centre, particularly from Gorman Drive. It is expected that the hoarding is to be located as close as possible to the

property boundary, maintaining maximum footpath width to minimise impact on pedestrian amenity.

7.3.7 Mitigation measures

Construction of the above development would generate a moderate increase in traffic on the surrounding road network. In this regard, the following measures should be undertaken to minimise the impacts of the construction activities of the development:

- A construction fence will be provided along the Aprasia Avenue, McPhail Way, Gorman Drive and Wilkins Way site boundaries to provide safe pedestrian access.
- Traffic control will be required to manage and regulate traffic movements into and out of the site during construction, with pedestrian priority provided during peak hour periods to maintain accessibility to public transport facilities.
- Disruption to road users should be kept to a minimum by scheduling intensive delivery activities outside of peak network hours.
- Supervised traffic control will be required where two-way flow is restricted over any length of the roadway, depending on the number of truck movements required and would be managed outside of peak hour vehicle and pedestrian activity.

7.4 Ecologically sustainable design (ESD)

An ESD Report by Steensen Varming is attached at **Appendix 7**. The report summarises the ESD initiatives adopted for the project, explains how the project has addressed the SEARs requirements and provides an overview of how the proposal responds to sustainable planning.

7.4.1 Principles of ESD

There are four ESD principles defined by clause 7(4) of Schedule 2 of the EP&A Regulation that must be considered in the assessment of the proposal. These are addressed in the table below. The Green Star report card at Appendix A of the ESD report also identifies where specific project initiatives align with the four principles.

Table 7-2 ESD principles assessment

Principle	Description	Comment
Precautionary principle	The precautionary principle says 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	There are no threats of serious or irreversible environmental damage associated with the proposal. The proposal provides for a development that avoids environmental impacts where possible and locates new

Principle	Description	Comment
	prevent environmental degradation.	buildings on previously disturbed land.
Intergenerational equity	The principle of intergenerational equity says that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.	The proposal seeks to maintain the environmental assets of the site by ensuring the protection of trees on the adjoining site and providing for appropriate management of stormwater. The proposal also seeks to improve the environmental character of the site through new and improved landscaping (15 street trees removed and 330 native trees and 32 exotic trees planted on site), and to minimise the consumption of resources where possible.
Conservation of biological diversity and ecological integrity	This principle says that conservation of biological diversity and ecological integrity should be a fundamental concern.	The proposal is located on cleared/developed land, thereby conserving other areas of biological and ecological integrity. The proposal will implement appropriate stormwater management systems and have no detrimental impact on surrounding waterways.
Improved valuation, pricing and incentive mechanisms	This principle says that environmental factors should be included in the valuation of assets and services.	The project will integrate several initiatives which aim to minimise pollution and other undesirable environmental outcomes. Contractors will be required to provide and abide by an environmental management plan which is in accordance with NSW Environmental Management Systems Guidelines or a similar standard.

7.4.2 ESD measures

In order to support the functional demands of the school as a learning and teaching environment, the proposal's ESD strategy focuses on the following key priorities:

- Promotion of natural daylight.
- Excellent indoor air quality.

- Excellent thermal, visual and acoustic comfort.
- Resource conservation.
- Creation of an integrated community resource.
- Development of the building and surrounds as a teaching tool.

The table below summarises the ESD strategies recommended for the project. The ESD report at **Appendix 7** provides detail on these strategies.

Table 7-3 ESD measures

Theme	Recommendation for incorporation at detailed design stage
Energy conservation	• Building form as been designed to allow greater solar access and opportunity for natural ventilation. • Passive design principles have been adopted to respond to environmental conditions including orientation, solar access, winds and seasonal and diurnal temperature changes. • Building performance will be enhanced by prefabrication (airtightness and thermal). • A mixed mode ventilation strategy will be assessed for improving indoor air quality and reducing energy consumption. • Building energy performance improvement is aimed to demonstrate that the project achieves a minimum 10% energy reduction against the benchmark standard. • Energy efficient internal and external lighting systems are to be considered. • Occupancy controls will be considered for spaces so that operating systems can be shut down both manually and automatically when unoccupied. • Solar panels have been considered and will potentially be located on the roof terrace. • High efficiency temperature control systems will be incorporated.
Water conservation	• Water efficient fixtures/fittings will be specified, specifically those certified under the WELS rating system. • Rainwater reuse with rainwater collection to be investigated for reuse options including landscape and toilet flushing. • Fire systems test water capture and storage for re-using the rainwater tank will be assessed.
Materials and construction waste	• Timber products used in construction will be sourced from reused, post-consumer recycled timber.

Theme	Recommendation for incorporation at detailed design stage
	• Steel will be specified where possible to meet specific strength grades, energy reducing manufacturing technologies and off-site fabrication. • Portland cement will be reduced as much as possible, with fine and coarse aggregate sourced from manufactured sand or other alternative materials. • Furniture items with high recycled or recyclability content to be considered.
Emissions	• The design aims to reduce of all forms of emissions, including watercourse pollution, light pollution, and ozone depletion. • Water Sensitive Urban Design (WSUD) integrates water cycle management with urban planning and design. The aim of WSUD is to manage the impacts of storm water run-off from the development to protect and improve waterway health by replicating the natural water cycle.
Other key measures	• Environmental Management Plan (EMP) – An EMP has been considered for the school. The EMP will be developed and implemented for the construction stage, including demolition and excavation, to address environmental, worker health and safety and community risks. The EMP is a project-specific plan developed using State and Federal Guidelines and standards. The main contractor will implement an Environmental Management System certified to the ISO 14001 standard to ensure the objectives of the EMP are met. • Site waste management plan – During the demolition and construction phase, the development of a project-specific site waste management plan (WMP) will be assessed to reduce recycling of demolition and construction waste. • Comprehensive commissioning – Pre-commissioning, commissioning and quality monitoring for all building services to be considered. • Waste storage will be provided dedicated to the separation and collection of recyclable waste. • Cycle parking and end of trip facilities – Inclusion of 60 bicycle parking racks, and end of trip facilities for staff are being considered.

7.4.3 Assessment against accredited rating scheme

The proposal seeks to achieve a 4 Star Green Star certification in line with Green Star Design and As Built v1.3 principles. A Green Star scorecard is included at Appendix A of the ESD report.

7.4.4 NARCliM projected impacts

To assess the climate projections for the region, the NSW and ACT Regional Climate Modelling (NARCliM) project has been considered. Googong is included within the ACT area. The main trends regarding climate change projections for the area are as follows:

- Maximum temperatures are projected to increase in the near future by 0.6° – 0.9°C in the near future (2030) and by 1.4° – 2.3°C in the far future (2070).
- Minimum temperatures are projected to increase in the near future by 0.4° – 0.7°C in the near future (2030) and by 1.4° – 2.3°C in the far future (2070).
- The number of hot days will increase, and the number of cold nights will decrease.
- Rainfall is expected to decrease in spring and increase in summer and autumn.
- Average fire weather is projected to increase in spring, summer and winter, and the number of severe fire weather days is projected to increase in summer and spring.

The table below shows a high-level review of climate change risks and a review of how the design can address these risks. A more detailed review and workshop will be conducted during this stage of the project to review all likely risks and discuss how their relative impacts can be identified, assessed and mitigated.

Table 7-4 Climate change design response

Climate impact	Design response
Increase in extreme hot days and average temperatures	• Back-up power (generators/PV). • Redundancy built into cooling capacity. • Thermal storage – manages peak loads. • Durable materials selection. • Mechanical system to be able to respond to extreme temperatures.
Increased drought duration	• No water-based heat rejection to be used. • On-site efficiency measures to reduce potable water demand. • Drought-resistant planting selection.
Increased fire weather	• Back-up power systems and onsite generation. • Filtration for air intakes into buildings.

Climate impact	Design response
Increased rainfall variability	• Sustainable urban drainage features will capture, treat, store stormwater, and reduce outflow. • Predictive/forecast management of water storage.
Increased storm intensity	• Durability of materials selection. • Predictive management planning in event of large storm events.

7.5 Aboriginal cultural heritage

7.5.1 Methodology

An Aboriginal and European Archaeological Assessment by Navin Officer Heritage Consultants is attached at **Appendix 6**. The assessment has been prepared in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales and Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010). The report documents the results of a due diligence Aboriginal and European archaeological assessment of the site.

7.5.2 Archaeological investigations

AHIMS search results

Five Aboriginal recordings are listed on AHIMS for the area around Googong. The sites comprise two artefact scatters and three potential archaeological deposits. The AEAA confirms that none of these sites are located within the subject site (Lot 3 DP 1179941).

Previous archaeological research

Previous archaeological surveys, surface collection and subsurface testing within the Googong Township area have been undertaken by Saunders (2001a, 2001b) and NOHC (2003, 2010, 2014, 2015, 2016, 2018). Sixty-seven Aboriginal sites have been identified in the Googong Urban Release Area prior to the current assessment, with none being located on the subject site.

Aboriginal sites recorded under previous investigations comprise scatters of stone artefacts on the surface and/or in shallow subsurface sediments, and are present across each of the sites in low densities.

The low overall density of artefacts across the broader Googong project area is likely to be a consequence of the fact that activity in the region would have been focused on the nearby Queanbeyan River. The Googong project area would have been a comparatively less desirable area in which to camp or occupy for extended periods of time.

Based on historical aerial imagery and the known history of the site, it is understood that the site was used for predominantly agricultural/pastoral purposes in the past. More recently, a significant amount of disturbance within the block has occurred during the construction of the surrounding development, with the site also used as a compound and laydown area.

Field survey

A survey of the site was completed by archaeologists on 17 December 2020. The entire site was walked on foot, and areas of disturbance were noted. It was evident that the area has undergone substantial disturbance including the presence of imported materials. No Aboriginal objects or areas of archaeological potential were identified.

7.5.3 Consultation

Ongoing consultation has been carried out in four stages across the broader Googong development area (including the subject site) since 2014, in accordance with consultation requirements stipulated by Aboriginal cultural heritage consultation requirement for proponents 2010 (NSW DECCW 2010),

A draft copy of Navin Officer's archaeological assessment was sent to all of the registered Aboriginal parties (RAPs) on 17th November 2020, with a comment period lasting until 8 December 2020. One comment was received, which confirmed support for the project and agreed with the recommendations made.

7.5.4 Direct harm

Given the results of previous archaeological studies, the AHIM and field survey carried out, the archaeological assessment confirms that no sites will be harmed by the development of the site.

7.5.5 Mitigation measures

The archaeological assessment recommends the following mitigation measures:

- No further heritage assessments are required for the site.
- The unanticipated discovery protocols outlined in Appendix 2 of the assessment should be followed for this project.

7.6 Heritage

The Aboriginal and European Archaeological Assessment by Navin Officer Heritage Consultants at **Appendix 6** considers the European heritage significance of the site. The assessment confirms that the site is not located in a heritage conservation area, and it does not contain, nor is located adjacent to, a listed heritage item. Accordingly, no heritage impacts are expected, and no mitigation measures are required.

7.7 Social impact

7.7.1 Methodology

A Social Impact Statement prepared by Elton Consulting is attached at **Appendix 20**. The report has been prepared in accordance with DPIE's Draft Social Impact Assessment Guideline.

7.7.2 Existing environment

The proposed school is located 10.5km from the Queanbeyan CBD and will be part of the Queanbeyan Primary SCG, which currently contains six public primary schools and two private primary schools. The Queanbeyan Primary School SCG borders the ACT to the east.

Googong is a relatively new community and experienced significant population growth between the 2011 and 2016 census periods, with the population growing from 1,122 to 2,690 in five years. The current population is estimated to be 5,344.

Greenfield developments like Googong are characterised by rapid population growth, often with the developed area going from no residents to a new community in a relatively short period of time. Traditionally, greenfield developments deliver affordable detached dwellings for families. Consequently, newly developed estates are characterised by young couple or families with children, notably in the 0-4 and 25-34 age groups. The statistical local area containing Googong reflects these typical characteristics, showing rapid population growth, high proportion of residents aged between 0-4 and 25-34, and couple households with children.

7.7.3 Stakeholder engagement

Stakeholders engaged during preparation of the subject SSD application included:

- Department of Education (Asset Services).
- Googong Residents Association.
- Jerrabomberra Public School.
- Council representatives including Community and Education Services, Library Services and Community Development.

Feedback received during consultation included:

- The uptake of active transport and public transport alternatives for students will be encouraged through the provision of new infrastructure and services.
- The configuration and design of buildings will respond to the climatic conditions of the site.
- Learning spaces will be designed to respond to community needs (identified through community survey).

- There are opportunities for shared use agreements.
- There are opportunities to reflect Country through design and management.
- The quantum and location of on-site parking need to align with community needs and requirements.
- The location of bus stops and the kiss-and drop-need to mitigate impacts on the surrounding road network and provide a safe environment for pedestrians.
- Amenity impacts to adjoining land uses need to be mitigated through design outcomes.
- SINSW should continue to provide ongoing consultation and feedback to impacted stakeholders, schools and broader communities.

7.7.4 Impact assessment

The table below provides a brief summary of the identified social impacts and mitigation measures.

Table 7-5 Social impacts

Impact	Comments
Increase in local choice for families	Positive impacts: The proposed school will effectively respond to unmet demand for primary schooling, increase availability for public school education (rather than fee paying), reduce travel times for many students and increase walking/cycling opportunities. Potential negative impacts: During consultation some residents raised concern about children experiencing anxiety while changing schools. It is acknowledged that this is a real concern for parents, but the matter cannot be appropriately addressed through the planning process. Some residents also raised concern that teaching positions at other in the area schools could be reduced. In response, it is emphasised that the school is a direct response to increased demand for a school in the area, and distributing this unmet demand across existing schools is not a feasible option. Refer to section 1.3 of this EIS for further discussion.
Amenity impacts	Construction traffic, noise and dust may adversely affect neighbours during the construction phase. The impacts have been identified as low-to-high in significance. These impacts will be relatively short-lived and can be effectively mitigated through construction management measures, including preparation and implementation of a construction management plan (CMP) and

Impact	Comments
	implementation of the recommendations in the noise report. Pedestrian safety was identified as having high significance. This concern will be adequately mitigated through finalisation and implementation of the School Travel Plan and finalisation of pedestrian crossing locations.
Effective and inclusive design	The proposal will provide for adaptive and flexible learning spaces with good internal thermal conditions. Learning spaces will support special needs students and be accessible for all. The outdoor areas will encourage recreation and physical activity, supporting health and well-being for children.

7.8 Noise and vibration

7.8.1 Methodology

An Acoustic Assessment prepared by Pulse White Noise Acoustics is attached at **Appendix 11**. The report assesses the impacts associated with noise emissions from the site during the operational and construction phases as well as noise intrusion to the site from surrounding noise sources.

An unattended noise survey was conducted between 8 April and 18 April to establish the existing background noise level at the site. The location of the logger is shown at Figure 7-16 below. Due to the site being a vacated lot and other surrounding noise sources (i.e., village centre, childcare centre, etc.) the logger location was limited and selected to be located away from the listed extraneous noise sources.

7.8.2 Existing conditions

Surrounding noise receivers include a mix of residential and commercial uses. The location of these uses is illustrated in Figure 7-16 below. The nearest residential receivers are located on all sides of the site across from the road reserves.

Surrounding noise sources include surrounding roads and operational activities of the adjacent village centre, located to the west of the site.

Figure 7-16 Surrounding noise receivers
Source: White Pulse

7.8.3 Noise emission from school

Operational noise

Key sources of noise emissions from operation of the future school include the public address (PA) system, school bell, mechanical services, outdoor activities and additional traffic noise.

Regarding the PA system, bell and mechanical services, detailed information is not available at this early stage of the project design. A detailed acoustic review of the PA system and building services will be carried out once the design is finalised to ensure relevant noise criteria are achieved.

Predicted noise from the kiss-and-ride area has been calculated, with the results provided at Table 6-3 of the acoustic report. Some residential receivers along Aprasia Avenue and Gorman Drive will experience noise levels above the specified criteria, but this is considered acceptable given the exceedances will occur for only a short period of time during drop-off and pick-up activities. Also, review of the existing residential dwellings located along Aprasia Avenue and Gorman Drive show that private open spaces in all cases are provided in the rear of the property, and modelling indicates full compliance with the noise criteria will be achieved in these areas.

Predicted noise from outdoor play activities has been calculated, with the results provided at Table 6-6 of the acoustic report. Predicted noise levels during periods of the day when the entire student faculty is utilising the outdoor play areas (e.g., recess and lunch) are likely to exceed the specified noise levels at surrounding residential receivers. The exceedances are considered acceptable for the following reasons:

- The exceedances will occur during the worst-case scenario (i.e., when the entire student faculty is using the outdoor play areas). Noise levels during passive learning activities are expected to be significantly lower and more frequent.
- It is not uncommon for school play areas to be located directly adjacent to residential receivers.
- The proposal includes dense buffer plantings around the play area that will help attenuate noise.
- Googong is not yet fully developed, and therefore measured noise levels are currently lower than typical of master planned communities. As the population increases and activity at the neighbouring shopping centre increases, background noise levels will increase, meaning school noise will be less noticeable.
- The NSW Land and Environment Court (LEC) proceeding *Meriden School v Pedavoli* [2009] NSWLEC 183 (22 October 2009), the judgement noted that "All Noise that emanates from the normal activities at a school is not offensive".

Construction noise

Predicted noise levels from construction activities have been calculated, and the results are provided at Table 7-1 of the acoustic report. The results show that some of the works are predicted to exceed noise management levels at surrounding receivers, with some works expected to exceed the Highly Noise Affected Level when occurring near the receiver. Construction management measures will need to be applied accordingly. These are outlined at sections 7.5 to 7.11 of the acoustic report.

Construction vibration

Human comfort vibration criteria are outlined in section 4.4 of the acoustic report. Section 7.4 of the report outlines indicative safe distances required in order to achieve compliance with the criteria.

7.8.4 Noise intrusion into school spaces

The primary source of noise intrusion into the school are the surrounding roads and adjoining commercial operations. Section 4.2 of the acoustic report specifies the noise criteria that must be met for the school's school internal and external areas.

For internal areas, it is expected that the specified criteria can be met subject to implementation of appropriate façade and glazing systems. The acoustic report

recommends facade and glazing treatments that may be used to satisfy the specified noise criteria (refer to section 5 of the report). It is noted that the recommendations are only an example of one solution and that the specified levels may be met through other façade and glazing solutions.

For the outdoor play area, measured on site noise levels indicate that no acoustic measures are required in order to achieve the specified criteria.

7.8.5 Mitigation measures

Façade and glazing systems must be designed to achieve the specified internal noise levels.

Section 6.5 of the acoustic report outlines a number of treatments and management controls that must be implemented for ensuring the proposal meets operational noise emission criteria:

- A detailed acoustic review of all building services is required prior to installation once final selections are made to ensure compliance.
- A review of the proposed PA/bell system is recommended once locations of speakers are known to ensure compliance.
- Use of the community hall for activities that include the use of amplified music and or speech will require all doors and windows to remain closed.
- Use of the community hall is permitted between 7:00am and 10:00pm only.

Sections 7.5 to 7.11 of the report outline a number of standard mitigation measures to ensure construction activities adequately mitigate construction noise and vibration. Additionally, a Construction Noise Vibration Management Plan will need to be prepared and implemented.

7.9 Biodiversity

A request for a biodiversity development assessment report (BDAR) waiver was submitted to DPIE on 26 October 2020. DPIE subsequently granted a waiver on 27 April 2021 on the basis that the development is not likely to have any significant impacts on biodiversity values (refer to **Appendix 8a**).

No significant vegetation or flora and fauna values will be affected by the proposal. The site is highly disturbed and contains very low biodiversity values. No threatened ecological communities and no threatened flora or fauna species listed under the BC Act or the EPBC Act have been recorded on the site or are likely to occur. Given the above, no mitigation measures regarding biodiversity impacts are required. Refer to the preliminary ecological report at **Appendix 8b** for further detail.

7.10 Stormwater drainage

A Civil Engineering SSDA Report prepared by Northrop are attached at **Appendix 13**. The report utilises DRAINS software to determine pre- and post-development flows and MUSIC modelling to estimate pollutant removal.

Stormwater will be captured by a series of pits and pipes draining into a stormwater treatment system followed by an underground on-site detention (OSD) tank located under the car park. Due to site constraints, the OSD system will only service the northern portion of the site, with the southern portion discharging to the stormwater network at Gorman Drive. The grassed play area will also bypass the OSD. The OSD tank has been designed to match the post-development peak flow with the pre-development peak flow in accordance with Council's DCP. Water will then be discharged from the site by existing stormwater pits adjacent to the northeast and southwest boundaries.

The proposed treatment train will protect against the risk of excessive pollutants entering downstream habitat. Stormwater quality treatments proposed include stormwater pit litter buckets, storm filter cartridges, grass lined swales and rainwater tanks. The MUSIC modelling results demonstrate that the proposed treatment train will within reason meet Council targets for pollutant reduction. To achieve Council's target of a 65% reduction in post-development mean annual load of total nitrogen would require a bioretention basis, which is not considered an appropriate solution given the nature of the proposed use. The 45% reduction in total nitrogen being proposed is consistent with reduction targets set out by many other local council as well as state government agencies.

7.11 Flooding

A Civil Engineering SSDA Report prepared by Northrop is attached at **Appendix 13**. Section 1.6 of the report contains commentary on flooding.

Northrop enquired with Council regarding any on-site flood risk, and Council advised that the Googong township is not a flood prone area and does not require additional measure for flood.

Previous site analysis identified localised nuisance flooding in the southwest and northeast corners of the site due to the site's exiting topography, as shown in the figure below. To mitigate this flooding, the proposed site surface has been graded to direct stormwater runoff into a pit and pipe network and OSD system. No adverse flooding impacts are anticipated following regrading and installation of the stormwater system.

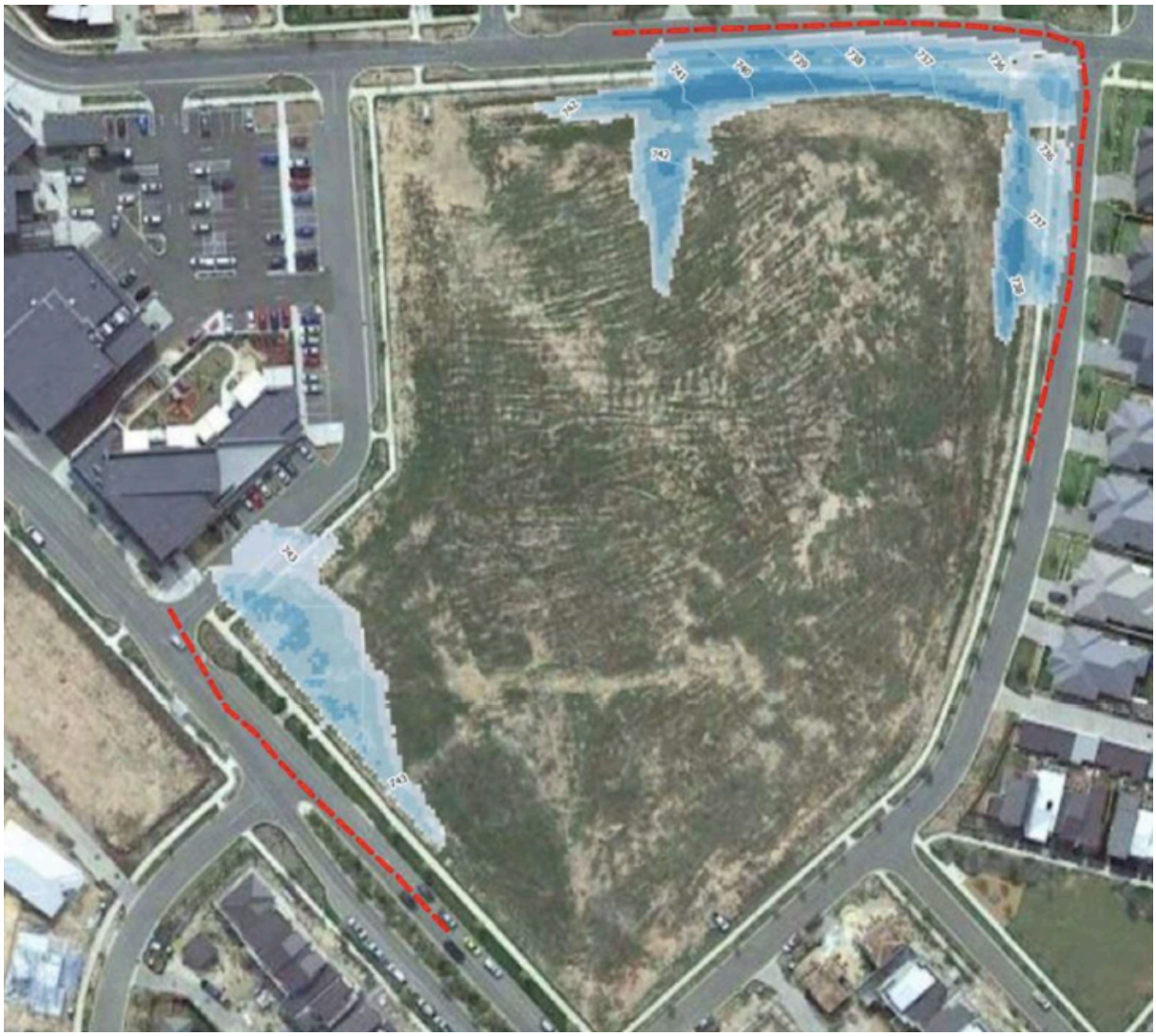


Figure 7-17 1-100 AEP flood level and depth
Source: GHD

7.12 Soils and water

7.12.1 Groundwater

The Report on Geotechnical Investigation by Douglas Partners (refer to **Appendix 19**) considers groundwater conditions across the site. The report notes that no free groundwater was observed in test pits during excavation.

Excavations may come into contact with groundwater through seepages from the sandy soil layers or through fractures in the bedrock after periods of rain and possibly in areas of springs (which cannot be detected until bulk earthworks). However, the proposal is not expected to have any adverse impacts on groundwater. The proposal does not involve any on-site storage of solid or liquid waste and chemicals, or any other similar polluting activity, that would contaminate groundwater.

7.12.2 Sediment and erosion control

Sediment and erosion control measures will be applied prior to the commencement of construction and maintained throughout construction. The measures will be in accordance with Council's requirements and the NSW Department of Housing Manual, "Managing Urban Stormwater Soil & Construction" 2004 (Blue Book). Refer to the sediment and erosion control plan in the civil engineering package at **Appendix 13** for further detail. Provided that these measures are in place prior to construction, no adverse sediment and erosion impacts are anticipated.

7.12.3 Salinity

The Preliminary Site Investigation at **Appendix 14** addresses soil salinity. The DPIE eSPADE website indicates that the site is unlikely to be affected by soil salinity issues, and soil profile logs available from NSW Soil and Land Information System indicate that no salting was evident in soil logs collected in the vicinity of the site. Accordingly, no further salinity investigations have been undertaken.

7.13 Waste

7.13.1 Construction waste

A Construction Waste Management Plan prepared by EcCell is attached at **Appendix 16**. The report outlines the estimated quantity and type of waste that will be generated during the construction stage and provides details on servicing arrangements, and roles and responsibilities.

The expected waste volumes during construction stage is identified in the table below. As seen in the table, the majority of construction waste will be recycled, with less a quarter to be transferred to a landfill.

Table 7-6 Construction waste generation

Material type	Estimated volume (m^3)		
	Reuse	Recycling	Disposal
Concrete brick blockwork and tile	-	165	-
Metals	-	85	-
Timber off-cuts	-	175	-
Cardboard	-	142	-
Plasterboard	-	165	-

Material type	Estimated volume (m^3)		
	Reuse	Recycling	Disposal
Plastics, plastic packaging, paint drums, containers	-	75	30
Pallets and reels	65 units	-	-
Liquid waste	-	-	20
General waste	-	-	151
Subtotal	65 units	807	201
Total	1008m^3		

7.13.2 Operational waste

An Operational Waste Management Plan (OWMP) by EcCell is attached at **Appendix 17.** The plan considers the proposal's waste generation, bin requirements, waste rooms and collection arrangements. Key items from the plan are outlined below.

Waste generation

The proposal's predicted waste generation and bin requirements are outlined in the table below.

Table 7-7 Operational waste generation

Waste type	Weekly volume (L)	Required bins	Collection frequency
Paper cardboard	1187	2 x 660L	Once per week
Comingled	1392	3 x 660L	Once per week
Soft plastic	1282	2 x 660L	Once per week
Organics	237	2 x 120L	Once per week
Return and earn	142	1 x 240L	Once per week
General	1757	3 x 660L	Once per week

Waste movement

Staff, students and visitors will place general waste and recycling into small waste and recycling bins (paper and comingled) located in the offices, canteen, classrooms and open space playground. These small waste bins should be segregated as per the final waste streams. Waste will be then transported by cleaning contractors via the nominated egress corridors/pathways to the waste storage pad and placed in the correct waste stream bins.

Waste storage pad

The waste storage pad is located in the corner of the carpark, closest to McPhail Way and Aprasia Avenue, as shown in Figure 7-18. The pad is sized to accommodate the required quantity of bins outlined in the table above.

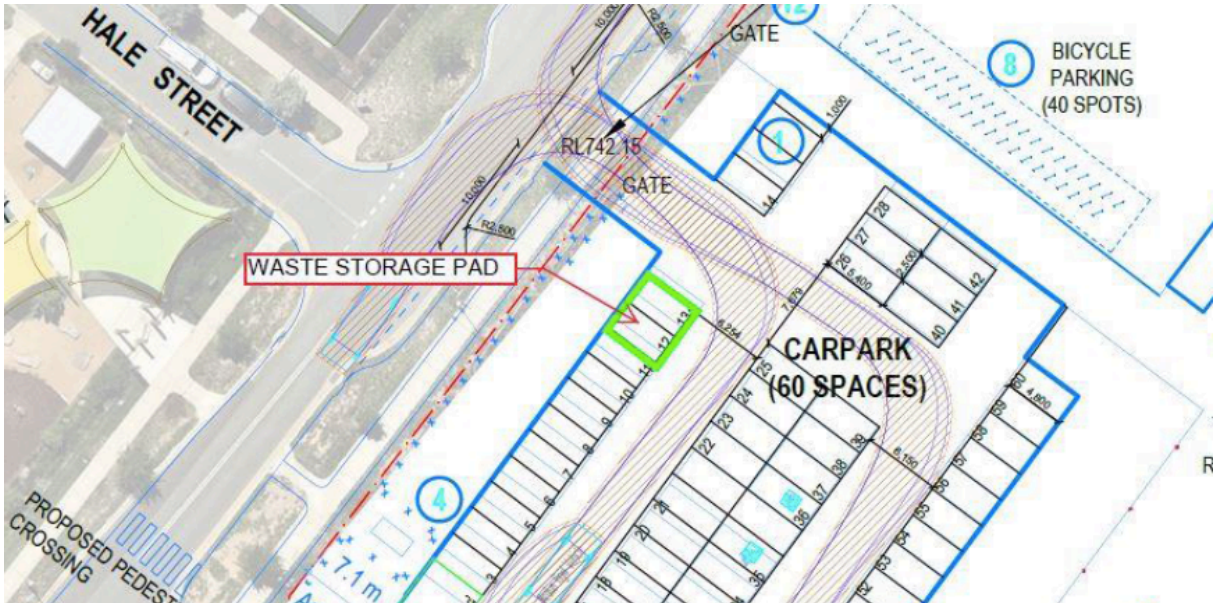


Figure 7-18 Waste pad location
Source: EcCell

Waste vehicle movements

Medium rigid vehicles (MRV) will collect the bins from the waste storage pad located in the carpark. Swept paths have been provided within Appendix A of the OWMP to demonstrate that the waste collection vehicles can access the storage pad whilst not obstructing adjacent premises, roadways, footpaths or primary entrances to the school.

7.14 Contamination

7.14.1 Methodology

A Preliminary Site Investigation by Douglas Partners is attached at **Appendix 14**. The report identifies potential sources of contamination and comments on the need for further investigation. The investigation included a review of review of site history information, a site walkover, excavation of 10 test pits, collection of soil samples and laboratory testing.

Key items from the report are outlined below.

7.14.2 Existing environment

The site contains three moderately vegetated stockpiles of approximately 20m^3 to 30m^3, located in centre, northwest and southeast of the site. The site is otherwise cleared and vacant.

It is understood that the earliest title for the site granted in 1920, and the site was likely used for grazing until development of Googong commenced. During construction works, the site was used as a construction compound including the storage of mobile plant and materials.

The site is included within land subject to a site audit statement (No. 12058 SAR 191, dated 18 October 2013) that concluded that the land was suitable for a range of land uses, including as a primary school.

7.14.3 Impacts

The results of the laboratory analysis indicated that reported concentrations of contaminants of concern associated with the fill, use of part of the site as a construction compound and potential use of pesticides were below the adopted assessment criteria or not detected. Accordingly, the site is considered suitable for the proposed used, subject to a number of standard mitigation measures.

7.14.4 Mitigation measures

The contamination report recommends the following standard mitigation measures:

- A Construction Environment Management Plan should be prepared including an unexpected finds protocol (for asbestos in fill, hydrocarbon affected soils including staining and odours and evidence of heavy pesticide use) and implemented during potential future site works.
- Should suspected asbestos containing materials be encountered at the site, the affected area should be fenced off and assessed by a licensed asbestos assessor.
- The fill material encountered beneath the site would be suitable for on-site reuse.
- Should any fill or stockpiled material be required to be disposed off-site, they must first be assessed in accordance with NSW EPA Waste Classification Guidelines Part 1 Classifying Waste (2014) and assigned a waste classification prior to off-site disposal.

7.15 Utilities

An Infrastructure Management Plan prepared by Norman Disney & Young is provided at **Appendix 12**. The existing site infrastructure and need for upgrades are summarised in the table below.

Utility	Existing infrastructure	Proposed supply
Potable water	The site has frontage to the following Council potable water mains: • Potable water main within Aprasia Avenue with a 100mm tie to the northeastern corner of the site. • Potable water main within Gorman Avenue with a 150mm tie to the southwestern boundary of the site.	A new potable water connection and fire services connection will be made to the existing Council potable water main located within Gorman Drive. The main has adequate capacity to service the proposed development. A pressure and flow enquiry to Council indicates no localised potable water pressure boosting pump stations, fire hydrant tanks or pumps are required.
Recycled water	The site has frontage to the following Council recycled water mains: • Recycled water main within Aprasia Avenue with a 100mm tie to the northeastern corner of the site. • Recycled water main within Gorman Avenue with a 150mm tie to the southwestern boundary of the site.	A new recycled water connection will be made to the existing Council recycled water main located within Gorman Drive. The recycled water will be used to for toilet flushing and irrigation to reduce the load on potable cold water demand.
Sewer	The site has frontage to the following Council sewer mains: • A 150mm sewer main within Aprasia Avenue. • 150mm sewer main within Gorman Drive.	The sewer drainage from the proposed buildings will be connected to the existing Council sewer main reticulating within Gorman Drive. The 150mm Council sewer main within Gorman Drive appears to have sufficient capacity to service the school development subject to preliminary service to Council for connection. Gravity flow sewer drainage systems will collect waste and effluent from all fixtures, fittings and appliances from the proposed buildings and connected to the Council sewer main.

Utility	Existing infrastructure	Proposed supply
Natural gas	The site has frontage to the following Evoenergy natural gas mains: • A 32mm 210kPa natural gas main within Apsaria Avenue. • A 110mm 210kPa natural gas main within Apsaria Avenue. • A 110mm 210kPa natural gas main within Gorman Avenue. • A 32mm 210kPa natural gas main within Wilkins Way. • A 50mm 210kPa natural gas main within McPhail Way.	The current design intent of the project is to eliminate the use of natural gas throughout the facility. Should this intent change, the existing Evoenergy natural gas mains within Gorman Avenue appears to have adequate capacity to service the proposed development.
Electrical high voltage (HV) services	There is an existing substation 33-75592 that supplies the residential area along Gorman Drive, Herman Circuit, Wilkins Way and Aprasia Avenue. The cables supplying this substation go through Aprasia Avenue.	The school site has no existing low volage (LV) supply, and the load required for the school is likely to be larger than any spare capacity on the existing padmount substation. The potential for upgrading the existing substation is currently being explored. However, it is considered likely that a new substation will be required. The indicative location for the new substation is directly fronting McPhail way as shown on the site plan.
Communication services	There is an existing Telstra pit and associated lead-in conduit to the site located in Aprasia Avenue.	New NBN pits and associated underground NBN conduits are proposed to be installed for NBN lead-in optic fibre reticulation.

7.16 Aviation

7.16.1 Methodology

An Aeronautical Impact Assessment by Aviation projects is attached at **Appendix 10**. The report has reviewed the proposal against relevant regulatory requirements, including Aeronautical Information Package and Civil Aviation Safety Authority

(CASA) Manual of Standards Part 139 – Aerodromes, NASF Guidelines and Airspace Regulations 2007. Key items from the report are outlined below.

7.16.2 Existing environment

The site is located approximately 13.5km southeast of Canberra Airport.

With a natural ground elevation of approximately 750m AHD, the site infringes on the outer horizontal surface of Canberra Airport, which has a height of 719.5m AHD, as shown in the figure below. That is, the land itself penetrates the surface.

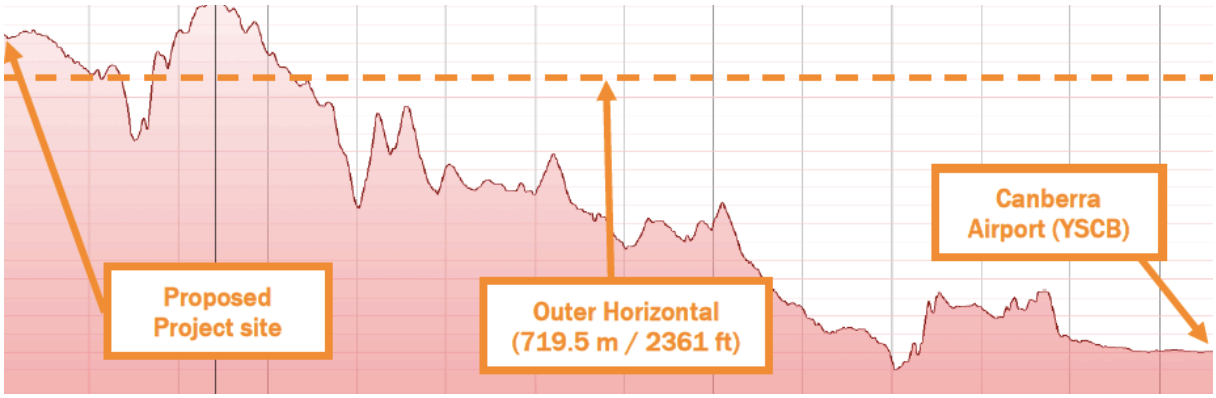


Figure 7-19 Elevation profile from site to Canberra Airport
Source: Aviation Projects

7.16.3 Assessment

Regarding impacts on airport operations, the aeronautical assessment concludes the following:

- Given the site's natural ground level is above the airport's outer horizontal surface, the proposal will penetrate the outer horizontal surface (by approximately 41.5m). However, there are buildings, structures and terrain between the site and the airport that effectively shield the development from impacting the outer horizontal surface, and therefore the penetration will not compromise the operations of the airport.

- The proposal will not infringe on the obstacle clearance heights applicable to any of the instrument procedures of Canberra Airport.

- The proposal will not impact air routes, aviation facilities or aviation radars.

In regards to aircraft noise, the assessment confirms that the site is located outside of the Australian Noise Exposure Forecast (ANEF) 20 contour for Canberra Airport. Therefore, clause 7.7 of the LEP, which requires special noise consideration for development in an ANEF contour of 20 or greater, is not applicable, and no further noise assessment is required.

7.16.4 Mitigation

The report makes the following recommendations:

- The proposed project can be supported without adversely affecting aviation safety.
- If approved, details of the project should be reported to Airservices Australia and published in En Route Supplement Australia (ESRA) and other relevant aeronautical chart products.
- Any crane used during construction should be referred to Canberra Airport for approval, appropriately marked, operated during daylight hours only and notified to pilots via a notice to airmen.

8 Assessment of other issues

8.1 Geotechnical

A Report on Geotechnical Investigation is attached at **Appendix 19**. The report provides the results of subsurface investigations to inform the structural design of the proposal. The report indicates that the site is geotechnically suitable for the proposed development and provides comments regarding site preparation, likely reactivity site classifications, retaining wall design parameters, footing design parameters and drainage.

8.2 Structural

A Structural Schematic Design Report by Northrop is attached at **Appendix 15**. The report outlines the required structural design criteria and the proposed structural systems. Based on the report, it is expected that standard structural techniques and methodologies will be utilised.

8.3 Accessibility

An Accessibility Report by JAZ Building Consultants is attached at **Appendix 18**. The report considers the proposal's accessibility with reference to the BCA, Disability (Access to Premises – Buildings) Standards 2010, relevant Australian Standards and Disability Discrimination Act 1992.

Based on the report, it is expected that the proposal can comply with relevant accessibility provisions, either by meeting the deemed-to-satisfy requirements or via a performance-based approach.

8.4 Tree protection

8.4.1 Methodology

An Arboricultural Impact Assessment by Wade Ryan Contracting is attached at **Appendix 9**. The assessment provides comment on the site's vegetation and surrounding street trees.

8.4.2 Existing environment

The assessment confirms that there is no vegetation on the site that qualifies as a tree.

Regarding adjoining land, the assessment identifies a total of 53 young street trees that border the site including:

- Gorman Drive – 12 Platanus x acerifolia (Plane Trees).
- Wilkins Way – 25 Eucalyptus cinerea (Argyle Apple).
- Aprasia Avenue – 10 Quercus palustris (Pin Oak).

- McPhail Way – 6 Eucalyptus species (unidentified species).

8.4.3 Impacts

The proposal will have the following impacts on the surrounding street trees:

- General potential impacts to the canopy or stem from the development relating to site access.

- Kerb realignment along Aprasia Avenue will directly impact a number of trees along Aprasia Avenue and Gorman Drive. (Note: The final extent of the kerb realignment has not been precisely determined, and therefore the arborist report does not specify the exact impact on the trees. For the purposes of this application, however, it has been conservatively assumed that seven trees along Aprasia Avenue and eight trees along Gorman Drive will require removal, as proposed in section 3.2 and illustrated on the landscape plans at **Appendix 3**.

The tree removal is considered acceptable given it will facilitate crucial transport infrastructure for the school. Also, the proposed landscape scheme features significant new plantings that will improve the visual amenity of the site, including 432new trees, many of which will be located along the site borders.

8.4.4 Mitigation measures

The assessment recommends the following mitigation measures:

- A tree protection zone (TPZ) measuring 2m radially from the stem must be established for any street trees to be retained.

- For trees not to be removed along Gorman Drive where an impact to the TPZ is up to 0.5m, the trees will require further assessment from a Level 5 arborist to determine specific remedial actions.

The assessment also provides a number of other general recommendations at section 5 of the assessment.

9 Environmental risk assessment

The table below provides a summary risk assessment of the proposal's potential environmental impacts as well as a consolidated list of recommended mitigation measures.

Table 9-1 Environmental risk assessment

Impact	Impact detail	Level of Impact	Mitigation measures	Residual Risk
Traffic				
Construction	Potential conflict between construction vehicles and other vehicles/pedestrians.	Low	Management plan: Finalise and implement the Construction Traffic Management Plan, which recommends installation of construction fencing, supervised traffic control and scheduling truck movements outside of peak hours, as well as other general measures.	Low
Operation	Increased vehicular traffic during operations.	Low	School Travel Plan: The School Travel Plan should be finalised and implemented.	Low
Aboriginal and European heritage				
Construction	The site has been identified as having no notable Aboriginal or European heritage significance.	Low	Unexpected finds protocol: A standard unexpected finds protocol should be implemented.	Low
Noise and vibration				

Impact	Impact detail	Level of Impact	Mitigation measures	Residual Risk
Construction	Noise associated with the normal construction works is expected to exceed noise limits for some surrounding receivers.	Medium	Management plan: A Construction Noise Vibration Management Plan must be prepared and implemented.	Medium
Operation	Noise emissions associated with operation of the school include mechanical plant, PA system, hall, outdoor play areas and additional traffic noise.	Low	Detailed design: Detailed acoustic impact of all building services must continue during the detailed design phase to confirm compliance with relevant noise criteria. A review of the proposed PA/bell system is also recommended once locations of speakers are known to ensure compliance. Management measures: Use of community hall is permitted between 7am and 10pm only, and hall doors must remain closed for activities that include the use of amplified music or speech. School management of outdoor play areas are required in accordance with typical practices of schools in NSW.	Low
	Surrounding roads and operations of the nearby village centre are key sources of noise intrusion into the site.	Low	Construction standards: The façade and windows should be designed in accordance with the recommendations in the Acoustic Assessment at **Appendix 11** to ensure appropriate internal noise levels.	Low

Impact	Impact detail	Level of Impact	Mitigation measures	Residual Risk
Contamination				
Construction	The site has been identified as suitable for the proposed used subject to standard mitigation measures.	Low	Management plan: A Construction Environment Management Plan should be prepared including an unexpected finds protocol.	Low
Aviation				
Construction	The development will extent above surrounding development into the outer horizontal surface of Canberra Airport.	Low	Referral to Canberra Airport: Any crane used during construction should be referred to Canberra Airport for approval, appropriately marked, operated during daylight hours only and notified to pilots via a notice to airmen, as recommended by the Aeronautical Impact Assessment at **Appendix 10.**	Low
Operation	The proposal will penetrate the outer horizontal surface of Canberra Airport.	Low	Reporting: If approved, details of the project should be reported to Airservices Australia and published in En Route Supplement Australia (ESRA) and other relevant aeronautical chart products, as recommended by the Aeronautical Impact Assessment at **Appendix 10.**	Low
Tree protection				
Construction	The site is surrounded by 53 street trees, some of which will be removed by kerb realignments and general construction activities.	Low	TPZs: Tree protection zones will need to be established for nominated trees as recommended in the Arboricultural Impact Assessment at **Appendix 9**.	Low

10 Mitigation measures

The table below provides a summary risk assessment of the proposal's potential environmental impacts as well as a consolidated list of recommended mitigation measures.

Table 10-1 Consolidated mitigation measures

Impact	Impact detail	Mitigation measures
Traffic		
Construction	Potential conflict between construction vehicles and other vehicles/pedestrians.	Management plan: Finalise and implement the Construction Traffic Management Plan, which recommends installation of construction fencing, supervised traffic control and scheduling truck movements outside of peak hours, as well as other general measures.
Operation	Increased vehicular traffic during operations.	School Travel Plan: The School Travel Plan should be finalised and implemented.
Aboriginal and European heritage		
Construction	The site has been identified as having no notable Aboriginal or European heritage significance.	Unexpected finds protocol: A standard unexpected finds protocol should be implemented.
Noise and vibration		
Construction	Noise associated with the normal construction works is expected to exceed noise limits for some surrounding receivers.	Management plan: A Construction Noise Vibration Management Plan must be prepared and implemented.
Operation	Noise emissions associated with operation of the school include mechanical plant, PA system, hall, outdoor play areas and additional traffic noise.	Detailed design: Detailed acoustic impact of all building services must continue during the detailed design phase to confirm compliance with relevant noise criteria. A review of the proposed PA/bell system is also recommended once locations of speakers are known to ensure compliance. Management measures: Use of community hall is permitted between 7am and 10pm only, and hall doors must remain closed for activities

Impact	Impact detail	Mitigation measures
		that include the use of amplified music or speech. School management of outdoor play areas are required in accordance with typical practices of schools in NSW.
	Surrounding roads and operations of the nearby village centre are key sources of external noise.	Construction standards: The façade and windows should be designed in accordance with the recommendations in the Acoustic Assessment at **Appendix 11** to ensure appropriate internal noise levels.
Contamination		
Construction	The site has been identified as suitable for the proposed used subject to standard mitigation measures.	Management plan: A Construction Environment Management Plan should be prepared including an unexpected finds protocol.
Aviation		
Construction	Construction cranes will extend will penetrate the outer horizontal surface Canberra Airport, but no adverse impacts on airport operations have been identified.	Referral to Canberra Airport: Any crane used during construction should be referred to Canberra Airport for approval, appropriately marked, operated during daylight hours only and notified to pilots via NOTAM, as recommended by the Aeronautical Impact Assessment at **Appendix 10.**
Operation	The proposal will penetrate the outer horizontal surface of Canberra Airport, no adverse impacts on airport operations have been identified.	Reporting: If approved, details of the project should be reported to Airservices Australia and published in En Route Supplement Australia (ESRA) and other relevant aeronautical chart products, as recommended by the Aeronautical Impact Assessment at **Appendix 10.**
Tree protection		
Construction	The site is surrounded by 53 street trees, some of which may be affected by kerb realignments and general construction activities.	TPZs: Tree protection zones will need to be established for nominated trees as recommended in the Arboricultural Impact Assessment at **Appendix 9**.

11 Conclusion and justification

This EIS is submitted to the Minister for Planning to accompany an SSD application for establishment of a new primary school at Googong.

This EIS has considered the relevant statutory instruments and strategic documents and provided an assessment of the potential impacts of the proposal on the built and natural environments as well as an assessment of social impacts.

This EIS fulfils the requirements of the EP&A Act and Regulation, addresses all relevant matters prescribed by the SEARs and demonstrates that the potential impacts of the proposal can be satisfactorily managed or mitigated.

In summary, the development should be approved for the following reasons:

- The proposal will meet identified demand and deliver on the announcement of a primary school in Googong.
- The proposal will provide for a contemporary, purpose-built facility that will optimise educational outcomes.
- The proposal will generate jobs, both short-term and ongoing.
- The proposal's design is the result of detailed analysis of the site and consultation with the community, DoE, GANSW, Council and TfNSW;
- The potential environmental impacts of the proposal can be satisfactorily mitigated subject to the recommendations of the technical supporting documentation accompanying this EIS.
- The site is suitable for the proposal.
- The proposal is in the public interest.

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