



ENVIRONMENTAL IMPACT STATEMENT FOR STATE SIGNIFICANT DEVELOPMENT 9809

MARSDEN PARK NEW PRIMARY SCHOOL

16 SEPTEMBER 2019
P0010742
FORMAL LODGEMENT
PREPARED FOR SCHOOL INFRASTRUCTURE NSW



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Project Code	P0010742
Report Number	Formal Lodgement

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TERMINOLOGY

Table 1 – Terminology used in this report

Terminology	Meaning
ACHA	Aboriginal Cultural Heritage Assessment
AHIMS	Aboriginal Heritage Information Management System
AS	Australian Standard
ASS	Acid Sulfate Soils
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCA	Building Code of Australia
BGC DCP	<i>Blacktown Growth Centres Precinct Development Control Plan 2018</i>
BGCPP 2013	<i>Blacktown Growth Centres Precinct Plan 2013</i>
CMP	Construction Management Plan
Council	Blacktown City Council
CPTED	Crime Prevention Through Environmental Design
CTMP	Construction Traffic Management Plan
District Plan	Central City District Plan
DPIE	NSW Department of Planning, Industry and Environment
DP	Deposited Plan
DSI	Detailed Site Investigation
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
EPA Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESD	Ecologically Sustainable Development
Education SEPP	<i>State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</i>
GANSW	NSW Government Architect's Office
Growth Centres SEPP	<i>State Environmental Planning Policy (Sydney Regional Growth Centres) 2006</i>

Terminology	Meaning
HIS	Heritage Impact Statement
HMS	Hazardous Materials Survey
Infrastructure Strategy	State Infrastructure Strategy 2018-2038
m	metre
NIA	Noise Impact Assessment
OEH	Office of Environment and Heritage
PSI	Preliminary Site Investigation
Region Plan	A Metropolis of Three Cities – Greater Sydney Region Plan
RAPs	Registered Aboriginal Parties
RMS	Roads and Maritime Services
SEARs	Secretary's Environmental Assessment Requirements
SEPP	<i>State Environmental Planning Policy</i>
SEPP 55	<i>State Environmental Planning Policy No.55 – Remediation of Land</i>
SEPP 64	<i>State Environmental Planning Policy No. 64 – Advertising and Signage</i>
SINSW	Schools Infrastructure New South Wales
M ²	Square Metres
SSD	State Significant Development
SEPP SRD	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSDA	State Significant Development Application
TfNSW	Transport for New South Wales
The Minister	the Minister for Planning and Public Spaces
The new school	The Marsden Park New Primary School
TPZ	Tree Protection Zone
Transport Strategy	Future Transport Strategy 2056
Urbis	Urbis Pty Ltd
WSUD	Water Sensitive Urban Design

SIGNED DECLARATION

This Environmental Impact Statement (EIS) has been prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulations 2000*.

Environmental Impact Assessment Prepared by:	
Names:	Sarah Horsfield (Director) <i>Bachelor of Town Planning, University of New South Wales</i> <i>Master of Environmental Law, University of Sydney</i> Tim Fleming (Consultant) <i>Bachelor of Science, University of Sydney</i> <i>Master of Urban and Regional Planning, University of Sydney</i>
Address:	Urbis Pty Ltd Level 8, 123 Pitt Street, Sydney NSW, 2000
In respect of:	School Infrastructure NSW (SINSW)
Applicant and Land Details	
Applicant:	School Infrastructure NSW, C/- Urbis Pty Ltd
Applicant Address:	Urbis Pty Ltd Level 8, 123 Pitt Street, Sydney NSW, 2000
Land to be developed:	Lot 2889 in DP 1230906
Project	The development of the Marsden Park New Primary School

Declaration:

I/we certify that the contents of the Environmental Impact Statement, to the best of my knowledge, has been prepared as follows:

- In accordance with Schedule 2 of the Environmental Planning and Assessment Regulations 2000;
- In accordance with the requirements of the Environmental Planning and Assessment Regulations 2000 and State Environmental Planning Policy (State and Regional Development) 2011;
- The statement contains all available information that is relevant to the environmental assessment of the proposed development; and
- The information contained in this report is neither false nor misleading.

Name	Sarah Horsfield, Director	Tim Fleming, Consultant
Signature		
Date	16 September 2019	16 September 2019

EXECUTIVE SUMMARY

PURPOSE OF THIS REPORT

This Environmental Impact Statement (**EIS**) has been prepared on behalf of School Infrastructure NSW (**SINSW**) (**the Applicant**) and accompanies State Significant Development Application (SSD 9809) for 'Marsden Park New Primary School' (the proposal).

This EIS should be read in conjunction with the Secretary's Environmental Assessment Requirements (**SEARs**) attached at **Appendix A**, and the supporting technical documents provided at **Appendix B – Appendix DD**.

This EIS has been prepared in accordance with and meets the requirements of Clause 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (**the Regulation**).

THE PROPOSAL

The proposal is for the construction of the Marsden Park New Primary School which reflects the significant need for additional public education infrastructure in this growth precinct. Across New South Wales, SINSW is funding new schools, upgrades to existing schools and improved facilities as public school enrolments are anticipated to be 40,000 students higher in 2019-20 than 2015-16. The Schofields area is a location where significant residential growth will result in a concentration of new student enrolments. Elara Estate, Marsden Park is a location where population growth has placed substantial pressure on existing public schools, causing them to become overcrowded beyond capacity.

The Elara Estate, currently being development by Stockland, is envisaged to provide a master planned community with access to a range of community facilities, sporting field, and retail premises. The projected population growth within the local Schofield's education cluster is expected to increase in student enrolments by approximately 2,573 students by 2031. The proposed new primary school is expected to cater for a modest proportion of this predicted student population growth, temporary teaching and learning environment.

Marsden Park New Primary School will cater for students from Kindergarten to Year 6. The school will accommodate approximately 1,000 students and 50 full-time staff upon completion and will assist in alleviating pressure on existing school enrolments in the area and cater for future population growth. To meet this future demand, the proposal seeks consent for:

- Construction Stage 1 (Temporary School): a temporary school facility constructed within the western portion of the development site located on the future sports grounds. This temporary school facility is to accommodate a maximum of 500 students at any given time. Should the permanent school progress as per the program, the temporary school will not be required.
- Construction Stage 2 (Construction of Permanent School Facility): a permanent consolidated two storey courtyard building with capacity to accommodate a maximum of 1,000 students. This new primary school building is to comprise:
 - 40 teaching spaces;
 - A canteen;
 - Library;
 - Multipurpose hall;
 - Office and administration space;
 - Staff and student amenities; and
 - Out of school hours care accommodation.
 - Multi-purpose sporting facilities and outdoor play spaces;
 - Associated site landscaping and public domain improvements;

- An on-site car park for 48 parking spaces including one accessible space and a drop-off and pick-up area; and
- Construction of ancillary infrastructure and utilities as required.

Planned growth within the Schofields education cluster and timing constraints has necessitated a potential requirement for a temporary school to be included as a construction stage (as a contingency) to ensure that the site can accommodate students at the start of the school year in 2021. Should the permanent school construction progress as per SINSW's program, the temporary school will not be required. We request that the consent is structured to enable the staged construction, if required.

THE SITE

The site is located at the corner of Northbourne Drive (to the east) and a proposed future road (to the north) within the Elara Estate, Marsden Park. The site is legally described as Lot 2889 in Deposited Plan 1230906 and extends to an area of approximately 3 hectares. A location plan is provided at **Figure 3**.

The site is located within the Blacktown Local Government Area (**LGA**) within the North West Growth Area (**NWGA**). The site is located to the west of Richmond Road directly north of a planned new public open space area.

PLANNING FRAMEWORK

The development is for the purpose of a new school. Pursuant to Schedule 1 Clause 15(1) of *State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)*, development for the purposes of a new school is state significant development, regardless of cost of works. Accordingly, the proposal will be submitted to the New South Wales Department of Planning Industry and Environment (**DPIE**) for assessment and determination.

CIV AND JOBS

The proposal will generate approximately 177 construction jobs and 50 operational jobs. The cost of works has been provided to the DPIE but is commercial in confidence at this stage.

ASSESSMENT

The proposal has been assessed against all items contained to the SEARs issued for the project. In summary:

- **The proposal demonstrates a high level of consistent with state and local statutory and strategic planning policies:**

The proposal has been designed in accordance with relevant objectives and development controls listed in the Blacktown Growth Centres Precinct Plan 2013, the Blacktown Growth Centre Precincts Development Control Plan 2016, *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017*, and results in a suitable new school development.

It also demonstrates a high level of consistency with relevant state and local strategic planning policies and documents.

- **The proposal will not have any unacceptable impacts on neighbouring residential development or the public domain:**

Subject to the various mitigation measures recommended by the specialist consultants, the proposal will not have any unacceptable impacts on adjoining or surrounding properties or the public domain in terms of traffic, visual, social and environmental impacts.

- **The proposal is highly suitable for the site:**

The proposal is for an educational use on a site which identified for a new primary school within the indicative layout plan for the Marsden Park Precinct. The proposal is also permissible with consent in the R2 (Low Density Residential) Zone and is consistent with the zone objectives. Further, there are no significant environmental constraints that would limit the proposal from being developed at the site.

- **The proposal is in the public interest:**

The proposal is for a new school in a location that is currently under significant population growth pressures resulting in requirements for additional school enrolments. It considered that the proposal will generate significant positive social and environmental impacts through the construction of a new school in the Marsden Park Community. The proposal satisfies the needs and requirements of the application to provide a school at this location that adequately meets the educational needs of anticipated enrolments growth in the Schofields educational cluster.

- **The proposal appropriately satisfies each item within the Secretary's Environmental Assessment Requirements:**

As demonstrated in the supporting technical documents provided at **Appendix B – Appendix DD**.

Considering the above and the content contained in this EIS, it is recommended that the DPIE approve this SSDA with appropriate standard conditions.

SECRETARY’S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

A request was made to the Minister for SEARs, pursuant to Clause 3, Schedule 2 of the EP&A Regulation. SEARs and the SEARs were issued on 11 January 2019. Following further correspondence with the Department of Planning Industry and Environment (DPIE), the SEARs was subsequently amended and reissued by DPIE on 2 July 2019. The SEARs are addressed within this report and included in full at **Appendix A**.

Table 2 below provides a summary of the SEARs and identifies the section of the report where the relevant requirement is addressed and/or the appendix reference for the specialist consultant’s report associated with that requirement.

Table 2 – SEARs

SEAR	EIS reference
General Requirements	
<p>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).</p> <p>Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.</p> <p>Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include:</p> <ul style="list-style-type: none"> adequate baseline data consideration of potential cumulative impacts due to other development in the vicinity (completed, underway or proposed) measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment. 	<p>The EIS has been prepared in accordance with the Secretary’s Requirements and meets the minimum form and content requirements specified in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>The EIS includes a comprehensive assessment of the environmental risks and impacts associated with the development.</p>
<p>The EIS must be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived an estimate of the jobs that will be created by the future development during the construction and operational phases of the development certification that the information provided is accurate at the date of preparation. 	Refer to Appendix B
Key Issues	
1. Statutory and Strategic Context	Refer to Section 5 of the EIS

SEAR	EIS reference
<p>Address the statutory provisions contained in all relevant environmental planning instruments, including:</p> <ul style="list-style-type: none"> • <i>Biodiversity Conservation Act 2016</i> • <i>State Environmental Planning Policy (State & Regional Development) 2011</i> • <i>State Environmental Planning Policy (Infrastructure 2007)</i> • <i>State Environmental Planning Policy (Sydney Region Growth Centres) 2006</i> • <i>State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017</i> • <i>State Environmental Planning Policy No. 64 – Advertising and Signage</i> • <i>State Environmental Planning Policy No.55 – Remediation of Land</i> • <i>State Environmental Planning Policy (Sydney Region Growth Centres) 2006</i> • <i>Draft State Environmental Planning Policy (Remediation of Land)</i> • <i>Draft State Environmental Planning Policy (Environment) and</i> <p><i>Permissibility</i></p> <p>Detail the nature and extent of any prohibitions that apply to the development.</p> <p><i>Development Standards</i></p> <p>Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.</p>	
<p>2. Policies</p> <p>Address the relevant planning provisions, goals and strategic planning objectives in the following:</p> <ul style="list-style-type: none"> • <i>NSW State Priorities</i> • <i>The Greater Sydney Regional Plan, A Metropolis of three cities</i> • <i>Future Transport Strategy 2056</i> • <i>State Infrastructure Strategy 2018 – 2038 Building the Momentum</i> • <i>Sydney’s Cycling Future 2013</i> • <i>Sydney’s Walking Future 2013</i> • <i>Sydney’s Bus Future 2013</i> • <i>Crime Prevention Through Environmental Design (CPTED) Principles</i> • <i>Healthy Urban Development Checklist (NSW Health)</i> 	<p>Refer Section 6 of this EIS.</p>

SEAR	EIS reference
<ul style="list-style-type: none"> • <i>Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)</i> • <i>Central City District Plan</i> • <i>Our Blacktown 2036</i> • <i>Blacktown Growth Centres Development Control Plan.</i> 	
<p>3. Operation</p> <ul style="list-style-type: none"> • Provide details of the proposed school operations, including staff and student numbers, school hours of operation, and operational details of any proposed before/after school care services and/or community use of school facilities. • Provide a detailed justification of suitability of the site to accommodate the proposal. 	Refer Section 4.8
<p>4. Built Form and Urban Design</p> <ul style="list-style-type: none"> • Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces. • Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and colours. • Provide details of any digital signage boards, including size, location and finishes. • Clearly demonstrate how design quality will be achieved in accordance with Schedule 4 Schools – Design Quality Principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools. • Detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development. • Provide detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development. • Provide a detailed site-wide landscape strategy, including consideration of equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation. • Provide a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items. • Address CPTED Principles. 	Refer Section 4.3.2 and 8.3 and Appendix G

SEAR	EIS reference
<ul style="list-style-type: none"> • Demonstrate good environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility. 	
<p>5. Design Excellence</p> <ul style="list-style-type: none"> • Provide design quality guidelines for the future built form and integration of landscape design. • Provide a Design Excellence Strategy for the future stages of the development which demonstrates how design excellence will be achieved. This strategy should set out: <ul style="list-style-type: none"> ○ the design process leading to the proposal ○ the type and details of the competitive design excellence processes proposed to be undertaken, and clear rationale for this process having regard to established design excellence policy context and best practice ○ a method setting out how the proposed design excellence, public domain and landscape excellence process will be implemented as part of the planning process ○ details of the method for the incorporation of sustainability into design. 	<p>Refer to Section 8.3 and Appendix G</p>
<p>6. Environmental Amenity</p> <ul style="list-style-type: none"> • Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing and acoustic impacts. • Conduct a view analysis to the site from key vantage points and streetscape locations (photomontages or perspectives should be provided showing the building envelope and likely future development). • Include a lighting strategy and measures to reduce spill into the surrounding sensitive receivers. • Identify any proposed use of the school outside of school hours (including weekends) and assess any resultant amenity impacts on the immediate locality and proposed mitigation measures. • Detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. • Recognise and address the adjacent heritage item to the north west of the development site that is identified on the SEPP (SRGC) 2006 heritage map. 	<p>Refer to Section 8.4 and 8.10</p> <p>Appendix G and Appendix H and Appendix J</p>

SEAR	EIS reference
<p>7. Staging</p> <p>Provide details regarding the staging of the proposed development (if any).</p>	<p>Refer to Section 4.6 and Appendix K</p>
<p>8. Transport and Accessibility</p> <p>Include a transport and accessibility impact assessment, which details, but not limited to the following:</p> <ul style="list-style-type: none"> • accurate details of the current daily and peak hour vehicle, existing and future public transport networks and pedestrian and cycle movement provided on the road network located adjacent to the proposed development • details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips based on surveys of the existing and similar schools within the local area • the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development • measures to integrate the development with the existing/future public transport network • the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for, and details of, upgrades or road improvement works, if required (Traffic modelling is to be undertaken using SIDRA network modelling for current and future years) • the identification of infrastructure required to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections, additional school bus routes along bus capable roads (i.e. minimum 3.5 m wide travel lanes), additional bus stops or bus bays • details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site • the proposed walking and cycling access arrangements and connections to public transport services • the proposed access arrangements, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones 	<p>Refer Section 4.9, 8.5, Appendix I and Appendix M</p>

SEAR	EIS reference
<ul style="list-style-type: none"> • details of the likely school catchment area, which will influence the location of the student population and subsequent transport choices to travel to/from school. • An assessment of the planned road design and timing for the construction of adjacent roads to the school. This assessment should consider the accessibility requirements from bus stops and anticipated pick-up and drop-off zones. • proposed bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance • proposed number of on-site car parking spaces for teaching staff and visitors and corresponding compliance with existing parking codes and justification for the level of car parking provided on-site • an assessment of the cumulative on-street parking impacts of cars and bus pick-up/drop-off, staff parking and any other parking demands associated with the development • an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures and personal safety in line with CPTED • emergency vehicle access, service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times) <p><u>à Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Guide to Traffic Generating Developments (Roads and Maritime Services) • EIS Guidelines – Road and Related Facilities (DoPI) • Cycling Aspects of Austroads Guides • NSW Planning Guidelines for Walking and Cycling • Austroads Guide to Traffic Management Part 12: Traffic Impacts of Development • Standards Australia AS2890.3 (Bicycle Parking Facilities). 	
<p>9. Ecologically Sustainable Development (ESD)</p> <ul style="list-style-type: none"> • Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development. • Include a framework for how the future development will be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon 	<p>Refer Section 8.6 and Appendix N</p>

SEAR	EIS reference
<p>materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy.</p> <ul style="list-style-type: none"> • Include preliminary consideration of building performance and mitigation of climate change, including consideration of Green Star Performance. • Detail how sustainable design measures, such as green and/or a cool roof, will be incorporated into the development to maximise long-term ecologically sustainable outcomes. • Detail sustainability targets and integration of these in the design approach • Demonstrate how environmental design will be achieved in accordance with the Environmental Design in Schools Manual • (https://www.governmentarchitect.nsw.gov.au/guidance/environmental-design-in-schools) • Provide a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change, specifically: <ul style="list-style-type: none"> ○ hotter days and more frequent heatwave events ○ extended drought periods ○ more extreme rainfall events ○ gustier wind conditions ○ how these will inform landscape design, material selection and social equity aspects (respite/shelter areas). <p><u>à Relevant Policies and Guidelines:</u></p> <p>NSW and ACT Government Regional Climate Modelling (NARClIM) climate change projections.</p>	
<p>10. Social Impacts</p> <p>Include an assessment of the social consequences of the schools' relative location and decanting activities if proposed.</p>	<p>Refer to Section 8.7.</p>
<p>11. Aboriginal Cultural Heritage</p> <ul style="list-style-type: none"> • The environmental assessment must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011). • Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation 	<p>Refer Section 8.8 and Appendix P</p>

SEAR	EIS reference
<p>requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.</p> <ul style="list-style-type: none"> Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH. Note that a due diligence report is not acceptable, an ACHAR must be prepared. 	
<p>12. Heritage</p> <ul style="list-style-type: none"> Provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items adjacent to the site in accordance with the guidelines in the NSW Heritage Manual. Address any archaeological potential and significance on the site and the impacts the development may have on this significance. 	Refer Section 8.9 and Appendix O
<p>13. Noise and Vibration</p> <ul style="list-style-type: none"> Identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, construction. Outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land. Identify and assess operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land. <p><u>à Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> NSW Noise Policy for Industry 2017 (EPA) Interim Construction Noise Guideline (DECC) Assessing Vibration: A Technical Guideline 2006 Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008). 	Refer Section 8.10 and Appendix H
<p>14. Contamination</p> <ul style="list-style-type: none"> Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. 	Refer Section 8.11 and Appendix Q

SEAR	EIS reference
<ul style="list-style-type: none"> Undertake a hazardous materials survey of any existing structures and infrastructure prior to any demolition or site preparation works. <p>Relevant Policies and Guidelines:</p> <ul style="list-style-type: none"> Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP) NSW EPA Sampling Design Guidelines 1995 Guidelines for the NSW Site Auditor Scheme (3rd Edition) 2017 (EPA) Guidelines for Consultants Reporting on Contaminated Sites 2011 (EPA) National Environment Protection (Assessment of Site Contamination) Measures 2013 (EPA). 	
<p>15. Utilities</p> <ul style="list-style-type: none"> Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation and easement requirements of the development for the provision of utilities including staging of infrastructure. Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design. 	<p>Refer Section 4.12, 8.12; and Appendix T, Appendix U, and Appendix DD</p>
<p>16. Contributions</p> <p>Address Council's 'Section 7.11 Contribution Plan' and/or details of any Voluntary Planning Agreement, which may be required to be amended because of the proposed development.</p>	<p>Refer Section 5.15</p>
<p>17. Water and soils</p> <ul style="list-style-type: none"> Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. Detail measures to minimise operational water quality impacts on surface waters and groundwater. Stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties and providing appropriate management of all anticipated flows. The EIS must map the following features relevant to water and soils including: <ul style="list-style-type: none"> Acid sulfate soils (Class 1, 2, 3 or 4 on the Acid Sulfate Soil Planning Map). Rivers, streams, wetlands, groundwater and groundwater dependent ecosystems. Proposed intake and discharge locations. 	<p>Refer Section 4.13 and 8.13; and Appendix S, Appendix Y, and Appendix R</p>

SEAR	EIS reference
<ul style="list-style-type: none"> • The EIS must describe background conditions for any water resource likely to be affected by the development, including: • Existing surface and groundwater. • Hydrology, including volume, frequency and quality of discharges at proposed intake and discharge locations. • Water Quality Objectives (as endorsed by the NSW Government [see www.environment.nsw.gov.au/ieo/index.htm]) including groundwater as appropriate that represent the community's uses and values for the receiving waters. • Indicators and trigger values/criteria for the environmental values identified above in accordance with the ANZECC (2000) Guidelines for Fresh and Marine Water Quality and/or local objectives, criteria or targets endorsed by the NSW Government. • Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions [see www.environment.nsw.gov.au/research-and-publications/publications-search/riskbased-framework-for-considering-waterway-health-outcomes-in-strategic-land-use-planning]. <p>The EIS must assess the impacts of the development on water quality, including:</p> <ul style="list-style-type: none"> • The nature and degree of impact on receiving waters for both surface and groundwater, demonstrating how the development protects the Water Quality Objectives where they are currently being achieved, and contributes towards achievement of the Water Quality Objectives over time where they are currently not being achieved. This should include an assessment of the mitigating effects of proposed stormwater and wastewater management during and after construction. • Identification of proposed monitoring of water quality. • The EIS must assess the impact of the development on hydrology, including: • Water balance including quantity, quality and source. • Effects to downstream rivers, wetlands, estuaries, marine waters and floodplain areas. • Effects to downstream water-dependent fauna and flora including groundwater dependent ecosystems. • Impacts to natural processes and functions within rivers, wetlands, estuaries and floodplains that affect river system and landscape health such as nutrient flow, aquatic connectivity and access to habitat for spawning and refuge (e.g. river benches). • Changes to environmental water availability, both regulated/licensed and unregulated/rules-based sources of such water. 	

SEAR	EIS reference
<ul style="list-style-type: none"> • Mitigating effects of proposed stormwater and wastewater management during and after construction on hydrological attributes such as volumes, flow rates, management methods and reuse options. • Identification of proposed monitoring of hydrological attributes. <p><u>à Relevant Policies and Guidelines:</u></p> <ul style="list-style-type: none"> • Guidelines for development adjoining land and water managed by DECCW (OEH, 2013). • Managing Urban Stormwater – Soils & Construction Volume 1 2004 (Landcom) • Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA) • Blacktown City Council Development Control Plan – Part J – Water Sensitive Urban Design and Integrated Water Cycle Management • Blacktown City Council Water Sensitive Urban Design Standard Drawing A(BS)175M • Blacktown City Council Engineering Guide for Development • Blacktown City Council Work Specification – Civil 	
<p>18. Flooding</p> <ul style="list-style-type: none"> • Identify flood risk on-site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity. If there is a material flood risk, include design solutions for mitigation. • The EIS must map the following features relevant to flooding as described in the Floodplain Development Manual 2005 (NSW Government) including: <ul style="list-style-type: none"> ○ Flood prone land. ○ Flood planning area, the area below the flood planning level. ○ Hydraulic categorisation (floodways and flood storage areas). ○ Flood Hazard. • The EIS must describe flood assessment and modelling undertaken in determining the design flood levels for events, including a minimum of the 5% Annual Exceedance Probability (AEP), 1% AEP, flood levels and the probable maximum flood, or an equivalent extreme event. • The EIS must model the effect of the proposed development (including fill) on current flood behaviour for a range of design events as identified above. This includes the 0.5% and 0.2% AEP year flood events as proxies for assessing sensitivity to an increase in rainfall intensity of flood producing rainfall events due to climate change 	<p>Refer Section 8.14 and Appendix S</p>

SEAR	EIS reference
<ul style="list-style-type: none"> • Modelling in the EIS must consider and document: <ul style="list-style-type: none"> ○ Existing council flood studies in the area and examine consistency to the flood behaviour documented in these studies. ○ The impact on existing flood behaviour for a full range of flood events including up to the probable maximum flood, or an equivalent extreme flood ○ Impacts of the development on flood behaviour resulting in detrimental changes in potential flood affection of other developments or land. This may include redirection of flow, flow velocities, flood levels, hazard categories and hydraulic categories. ○ Relevant provisions of the NSW Floodplain Development Manual 2005. • The EIS must assess the impacts on the proposed development on flood behaviour, including: <ul style="list-style-type: none"> ○ Whether there will be detrimental increases in the potential flood affection of other properties, assets and infrastructure. ○ Consistency with Council floodplain risk management plans. ○ Consistency with any Rural Floodplain Management Plans. ○ Compatibility with the flood hazard of the land. ○ Compatibility with the hydraulic functions of flow conveyance in floodways and storage in flood storage areas of the land. ○ Whether there will be adverse effect to beneficial inundation of the floodplain environment, on, adjacent to or downstream of the site, ○ Whether there will be direct or indirect increase in erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses. ○ Impacts on managing risk to life, emergency management arrangements, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event). These matters are to be discussed with and have the support of Council and the NSW SES. ○ Any impacts the development may have on the social and economic costs to the community as consequence of flooding. 	
<p>19. Bushfire</p> <p>Address bushfire hazard and, if relevant, prepare a report that addresses the requirements for Special Fire Protection Purpose Development as detailed in Planning for Bush Fire Protection 2006 (NSW RFS).</p>	<p>Refer Section 8.15 and Appendix CC</p>

<p>SEAR</p> <p>20. Biodiversity Assessment</p> <p>As the site is biodiversity certified, a Biodiversity Assessment Report is not required under s.8.4 of the Biodiversity Conservation Act 2016.</p> <p>The EIS must include the following:</p> <ul style="list-style-type: none"> engage a suitably qualified person to assess and document the flora and fauna impacts related to the proposal. detail the native vegetation community (or communities) that occurs, or once occurred, on the site, with a list of local provenance species (trees, shrubs and groundcovers) to be used for landscaping. specify landscaping using a diversity of local provenance species (trees, shrubs and groundcovers) from the native vegetation community (or communities) that occur, or once occurred, on the site. 	<p>EIS reference</p> <p>Refer Section 8.18 and Appendix Z</p>
<p>21. Waste</p> <p>Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.</p> <p><u>à Relevant Policies and Guidelines:</u></p> <p>Waste Classification Guideline Part 1 (General) 2014 – (EPA)</p>	<p>Refer Section 4.11 and Appendix X</p>
<p>22. Construction Hours</p> <p>Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours.</p>	<p>Refer to Section 4.7 of this EIS and Appendix L</p>
<p>Plans and Documents</p>	
<p>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.</p> <p>In addition, the EIS must include the following:</p> <ul style="list-style-type: none"> Architectural drawings showing key dimensions, RLs, scale bar and north point, building envelopes plans, sections and indicative elevation of the proposal at no less than 1:200 showing indicative furniture layouts and program illustrated materials schedule including physical or digital samples board with correct proportional representation of materials, nominated colours and finishes 	<p>Refer to Appendix B to Appendix DD.</p>

SEAR

- details of proposed signage, including size, location and finishes
- detailed annotated wall sections at 1:20 scale that demonstrate typical cladding, window and floor details, including materials and general construction quality
- site plans and operations statement demonstrating the after hours and community use strategy
- Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries
- Site Analysis Plan including
- site and context plans that demonstrate principles for future development and expansion, built form character and open space network
- active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links
- site and context plans that demonstrate principles for future network, active transport linkages with existing, proposed and potential footpaths and bicycle paths and public transport links
- Sediment and Erosion Control Plan
- Shadow Diagrams
- View analysis, photomontages and architectural renders, including from those from public vantage points
- Landscape architectural drawings showing key dimensions, RLs, scale bar and north point, including:
- integrated landscape plans at appropriate scale, with detail of new and retained planting, shade structures, materials and finishes proposed including articulation of playground spaces
- plan identifying significant trees, trees to be removed and trees to be retained or transplanted
- Design report to demonstrate how design quality will be achieved in accordance with the above Key Issues including:
- architectural design statement
- diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal
- detailed site and context analysis
- analysis of options considered including building envelope study to justify the proposed site planning and design approach
- visual impact assessment identifying potential impacts on the surrounding built environment and adjoining heritage items

EIS reference

SEAR	EIS reference
<ul style="list-style-type: none"> • 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 • Geotechnical and Structural Report • Accessibility Report • Schedule of materials and finishes. 	
Consultation	
<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners.</p> <p>In particular, you must consult with:</p> <ul style="list-style-type: none"> • Blacktown City Council • Government Architect NSW (through the NSW SDRP process) • Transport for NSW and • Roads and Maritime Services. <p>Consultation should commence as soon as practicable to agree the scope of investigation.</p> <p>The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues.</p> <p>Where amendments have not been made to address an issue, a short explanation should be provided.</p>	<p>Refer to Section 7 of this EIS and Appendix BB</p>

1. INTRODUCTION

1.1. PROJECT OVERVIEW

The proposal seeks consent to construct a new multi-purpose primary education facility within the Elara Estate that meets future demands for modern facilities with a contemporary teaching environment. This EIS seeks development consent for the construction of the Marsden Park New Primary School which will cater for 1,000 primary school students at completion. The proposal comprises:

- Construction Stage 1 (Temporary School): a temporary school facility constructed within the western portion of the development site located on the future sports grounds. This temporary school facility is to accommodate a maximum of 500 students at any given time. Should the permanent school progress as per the program, the temporary school will not be required.
- Construction Stage 2 (Construction of Permanent School Facility): a permanent consolidated two storey courtyard building with capacity to accommodate a maximum of 1,000 students. This new primary school building is to comprise:
 - 40 teaching spaces;
 - A canteen;
 - Library;
 - Multipurpose hall;
 - Office and administration space;
 - Staff and student amenities; and
 - Out of school hours care accommodation.
- Multi-purpose sporting facilities and outdoor play spaces;
- Associated site landscaping and public domain improvements;
- An on-site car park for 48 parking spaces (including one space accessible space) and a drop-off and pick-up area; and
- Construction of ancillary infrastructure and utilities as required.

Planned growth within the Schofields education cluster and timing constraints has necessitated a potential requirement for a temporary school to be included as a construction stage (as a contingency) to ensure that the site can accommodate students at the start of the school year in 2021. Should the permanent school progress as per the agreed program, the temporary school will not be required. It is therefore requested that the consent is structured to enable the staged construction of the new primary school so that the contingency for the temporary school be available to the Applicant should it be required.

This EIS includes an assessment of the scenario where the temporary school is constructed and includes appropriate mitigation measures should it be constructed.

1.2. REPORT STRUCTURE

This EIS provides the following:

- A description of the site and surrounding context, including identification of the site, existing development on the site, and surrounding development;
- A detailed description of the proposed development;
- An assessment of the proposed development against the relevant strategic and statutory planning controls;
- An assessment of the key issues and impacts generated by the proposed development; and
- A detailed description of the consultation undertaken with respect to the proposal.

This EIS should be read in conjunction with the SEARs attached at **Appendix A**, and the supporting technical documents provided at **Appendix B – Appendix DD**

1.3. PROPOSAL TEAM

Specialist consultants were engaged to assist in the preparation of this SSD, as outlined in **Table 3**.

Table 3 – Proposal Team

Discipline / Input	Consultant	Appendix
SEARs	DPIE	Appendix A
Capital Investment Value Report	Rider Levett Bucknall	Appendix B
Site Survey	RPS	Appendix C
Architectural Drawings	NRBS	Appendix D
Landscape Plans	NRBS	Appendix F
Urban Design Report	NRBS	Appendix G
Noise and Vibration Impact Assessment	Acoustic Logic	Appendix H
Transport Impact Assessment	GHD	Appendix I
Lighting Strategy	Lucid Consulting	Appendix J
Construction Management Plan and Construction Staging Plan	Ontoit	Appendix L & Appendix M
ESD Report	GHD	Appendix N
Heritage Impact Assessment	Urbis	Appendix O
Aboriginal Cultural Heritage Assessment Report	AMAC Group	Appendix P
Contamination Assessment and Geotechnical Assessment	Douglas Partners	Appendix Q & Appendix R
Stormwater Management Plan	Wood and Grieve Engineers	Appendix S
Hydraulic Infrastructure Services and Water Cycle Management Report & Electrical & Communications Infrastructure Report	Lucid Consulting	Appendix T & Appendix U
BCA and Accessibility Report	Metro Building Consultancy	Appendix V & Appendix W
Waste Management Plan	GHD	Appendix X
Sediment and Erosion Control Plan	Wood and Grieve Engineers	Appendix Y
Flora and Fauna Impact Statement	Ecological	Appendix Z
Structural Report	Wood and Grieve Engineers	Appendix AA
Consultation Outcomes Report	Ontoit	Appendix BB

Discipline / Input	Consultant	Appendix
Bushfire Impact Assessment	Ecological	Appendix CC
Rainwater Harvesting and Reuse Report	Lucid Consulting	Appendix DD

1.4. PROJECT OBJECTIVES

The objective of the project is to construct a new, purpose built educational establishment for 1,000 students to meet future demands for modern teaching facilities. The proposal aims to:

- Provide a high-quality educational establishment facility that meets the needs of anticipated growth in the Schofields educational cluster;
- Create both temporary and permanent job opportunities during the demolition, construction, and operational phase of the development;
- Implement CPTED principles to deter crime in the school design;
- Provide a safe and accessible new educational establishment;
- Create a series of high quality and modern teaching spaces which are flexible and promote increased social interaction among students and teachers;
- Minimise overshadowing, overlooking, obstruction of light or air, noise, obstruction of views or any other such impacts on nearby properties; and
- Provide areas within the new school for outdoor recreation to improve the health and welling of future students.

1.5. PROJECT CONTEXT AND BACKGROUND

There is an existing Marsden Park Public School, located at 361-363 Garfield Road West, Marsden Park, which currently caters to the public education needs of the Marsden Park Precinct. This school includes dilapidated teaching facilities and is not fit for purpose to accommodate the planned population growth in the Marsden Park Precinct. Notwithstanding this, the school will be retained in the short term to accommodate a small number of students as a contingency for any overflow of enrolments at the proposed Marsden Park New Primary School.

The Elara Estate, currently being development by Stockland, is envisaged to provide a master planned community with access to a range of community facilities, sporting field, and retail premises. The projected population growth within the local Schofield's education cluster is expected to increase in student enrolments by approximately 2,573 students by 2031. The proposed school is expected to cater for a significant proportion of this predicted student population growth.

1.6. PREVIOUS APPROVALS AND OTHER RELEVANT APPLICATIONS

The site has been the subject of development approvals issued by Blacktown Council associated with the subdivision and bulk earthworks of the Elara Estate.

Most recently a DA was approved by Council for the subdivision of the parent lot to create the subject site (which was registered in early 2019).

The following applications are currently being prepared for site preparation works related to this application:

- An early works application including bulk earthworks and cut and fill lodged to Blacktown City Council; and
- A Review of Environmental Factors to connect the proposal to essential services infrastructure.

2. ANALYSIS OF FEASIBLE ALTERNATIVES

Four options for the project were investigated in response to the identified need for additional education infrastructure in the locality:

1. A 'do nothing' approach

A 'do nothing' approach in this instance would mean not providing high quality education facilities to meet the significant need for additional public education infrastructure in the area cognisant with planned population growth. The existing Marsden Park Public School is unable to meet education requirements for the area. In addition, the Marsden Park Public School is incapable of being developed to accommodate modern teaching facilities.

2. Development of the Project at an alternative location

The location of the development at the site is the result of a master planning process for the Marsden Park Precinct. Alternative locations were considered at this stage and the subject site was identified as the appropriate location for a new primary school.

3. Development of the Project with an alternative design

SINSW has explored a number of options during the detailed design process of the proposed new school. These were prepared in response to educational principles defined by the Project Reference Group, benchmarking tours, and site investigations.

Three Concept Designs were presented to the NSW Department of Education on 7 February 2018 in the form of a functional design brief (see **Figure 2** below). These options were then the subject of consultation undertaken by SINSW to determine the appropriate new school design. Further to these concept designs, SINSW instructed the project team to proceed with a courtyard school concept which has informed the proposal design.

Figure 1 – Masterplan Options



Source: NRBS

4. The Proposal

This option involves the construction of the Marsden Park New Primary School at the site as outlined in this SSD application. The new school has been designed in accordance with relevant objectives and development controls listed in the Blacktown Growth Centres Precinct Plan 2013, the Blacktown Growth Centre Precincts Development Control Plan 2016, the Education SEPP, and results in a suitable new school development.

3. SITE & SURROUNDING CONTEXT

3.1. THE SITE

The site is at the corner of Northbourne Drive (to the east) and a proposed future road (to the north) within the Elara Estate, Marsden Park (see **Figure 2**). The site is legally described as Lot 2889 in DP1230906.

The site is irregular in shape with a total area of approximately 3 hectares. The site has an existing frontage to Northbourne Drive of approximately 106 metres, a future frontage to a proposed road to the north, a frontage to Beale Street to the east and south, and an additional frontage to a proposal local park to the south.

Figure 2 – Site Aerial



Source: Urbis

3.2. SITE CONDITIONS

The site contains no buildings or structures and is currently vacant. A patch of grass runs east to west in the northern portion of the site.

3.3. SURROUNDING CONTEXT

The site is located within the Blacktown Local Government Area (**LGA**). Marsden Park is located approximately 49km north west of Sydney's Central Business District and 27 km from Paramatta. Richmond Road, which is a state classified road, is located to the east of the site.

The existing land uses in the vicinity consist of low-density residential dwellings and a mixed-use precinct town centre located approximately 600m south of the site. Immediately surrounding the site is undeveloped greenfield land that has been subdivided for future low-density residential development.

Development in the surrounding area is summarised as follows:

- **To the north** is a proposed future collector road linking to Richmond Road. Further north and north west is state heritage listed item *Clydesdale – House, Barn, Cottage and Farm Landscape*. To the east of the heritage item is the Clydesdale estate which is part of the Marsden Park Precinct.
- **To the east** is Northbourne Drive and further east are greenfield areas within the Elara Estate yet to be developed and some residential development already undertaken.
- **To the south** is a proposed new local park directly adjoining the site. To the south west the site has a frontage to Enmore Road. Further south are both greenfield areas within the Elara Estate yet to be developed and low density residential area. Further to the south, approximately 600m, is the proposed new Marsden Park town centre.
- **To the west** is Beale Street and further west are greenfield within the Elara Estate areas yet to be developed.

Figure 3 – Site Context



Source: Nearmap

3.4. REGIONAL CONTEXT

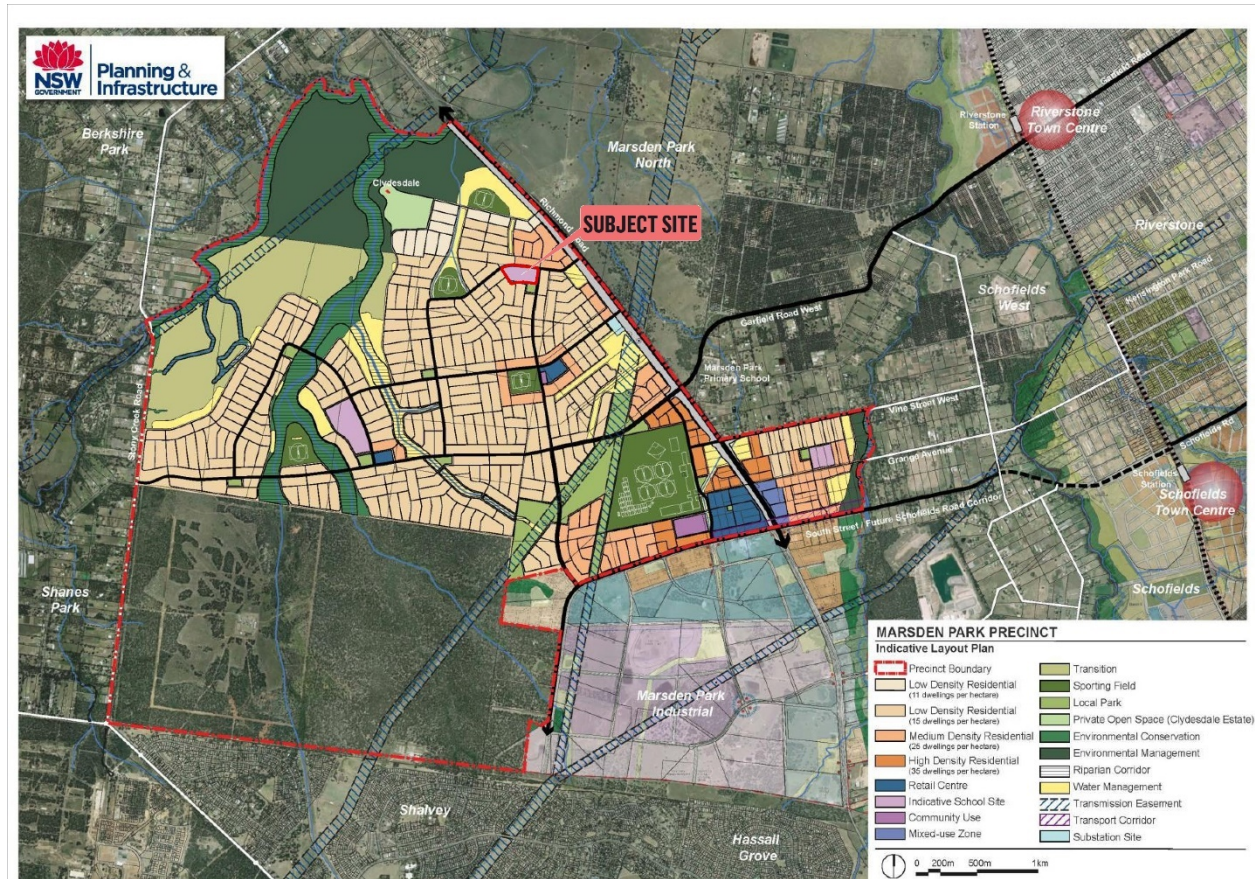
The site is located within the Elara Estate which is being developed by Stockland and comprises one of the largest master planned communities (280 hectares in area) in Sydney’s north-west. The Elara Estate is to include over 4,000 homes, a proposed neighbourhood retail precinct, a community centre including a childcare centre, the existing St Lukes Catholic College. St Lukes Catholic College is located on Northbourne Drive, approximately a kilometre to the south of the Marsden Park Public School subject site. The college provides catholic education from kindergarten to year 8.

The Elara Estate is located within Marsden Park Precinct (**MPP**) which has been the subject of a master planning process undertaken by the DPIE finalised in 2013. The MPP is located within the North West Growth Centre (**NWGC**) under the Growth Centres SEPP. The master planning process included the inclusion of specific statutory planning controls for the MPP, a new road layout, indicative housing densities, infrastructure provision, open space, community facilities and services, and a site-specific development control plan for the precinct.

The MPP, when completed, will have 10,300 new homes and 3,000 new jobs. The site is earmarked as an educational establishment within the MPP (see **Figure 5**). It is intended to provide an important function as the local public education establishment which will contribute to the growing need to high quality teaching facilities in the precinct.

A proportion of the MPP has been constructed subsequent to its rezoning, however, there is still some areas that are yet to be developed.

Figure 4 – Marsden Park Precinct Layout Plan



Source: DPIE

3.5. EXISTING AND PROPOSED ROAD CONNECTIONS

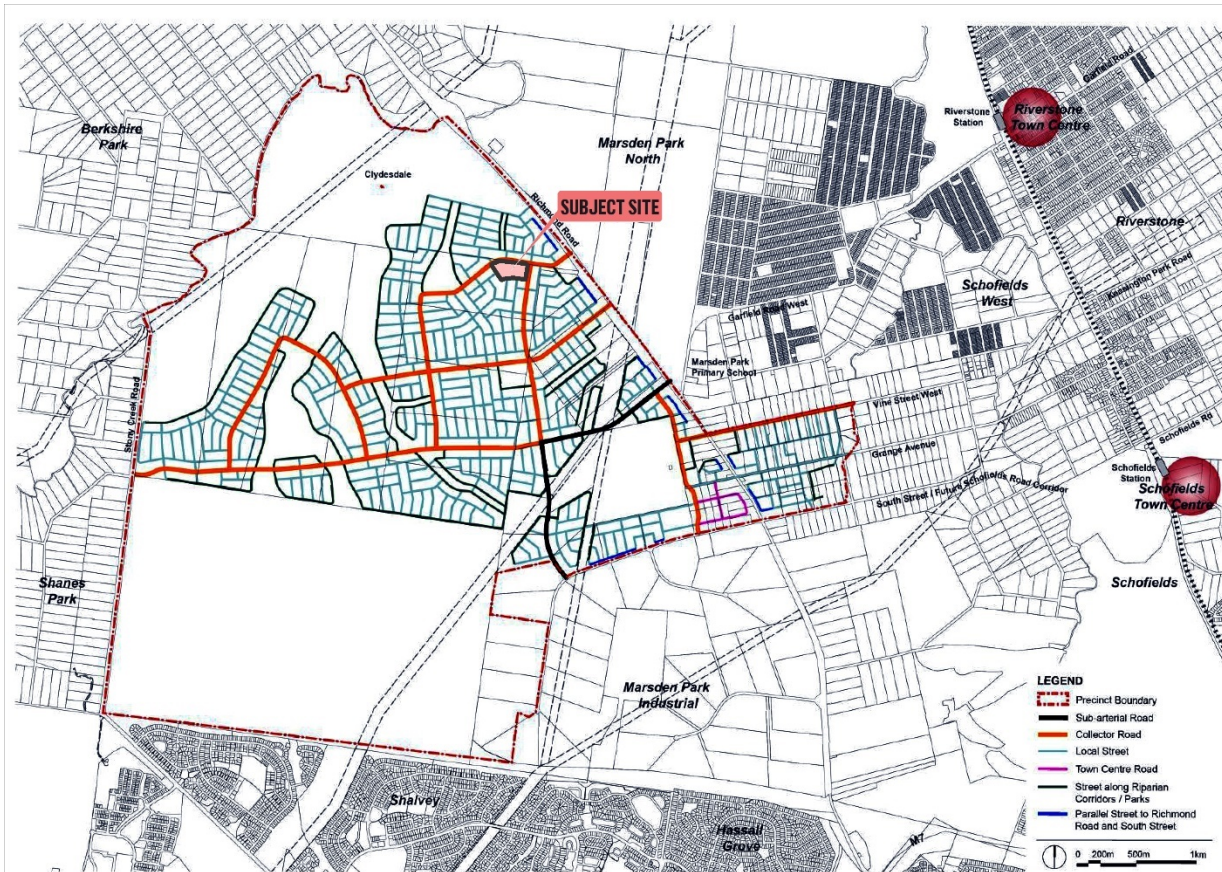
The proposed road hierarchy for the MPP is indicated in **Figure 6** below. Northbourne Drive and the proposed future road which the site fronts to the north are designated as collector roads. The other remaining roads in proximity to the site are dedicated as local streets or streets along riparian corridors.

Richmond Road, located to the east of the site (see **Figure 6**) is a 23.5km arterial road which links Blacktown (to the south) to Richmond (to the north). Proposed road upgrades include:

- Progressive upgrades to Richmond Road to provide additional traffic light access for the MPP, bus bays and bus priority lanes at the signalised intersection, increased the road from a single lane to a two lanes in each direction, provide shared parks for pedestrians and cyclists.
- Two roundabouts are proposed to the north of the site along the proposed future road including:
 - A roundabout to the east at the intersection with Northbourne Drive; and
 - A roundabout to the west associated with the Clydesdale development.
- Upgrades to Northbourne Drive including the provision of a 2.5m shared path for bicycle rides and pedestrians.

Further details of the existing and proposed road network are provided within the Transport Impact Assessment Accompanying this EIS at **Appendix H**.

Figure 5 – Marsden Park Precinct Road Hierarchy



Source: DPIE

3.6. PUBLIC TRANSPORT

The school catchment area is within short walking distance from a future residential area. The site is connected to public transport links and is easily accessible via Richmond Road, the main arterial road in the area. A summary of public transport links in proximity of the site is provided as follows:

Bus services:

The site is approximately 650m walking distance from bus stops along Elara Boulevard, which are serviced by the following bus routes:

- Route 747: Rouse Hill to Marsden Park via Riverstone.
- Route 757: Mount Druitt to Riverstone via Rooty Hill Road North and Marsden Park.

Future bus services are intended to be provided to Marsden Park as Transport for NSW (TfNSW) continue to expand and evolve in response to new development as part of the NWGA.

Discussions with TfNSW undertaken by GHD in the preparation of the Transport Impact Assessment (**Appendix I**) have indicated that current bus routes servicing the MPP and more specifically the Elara Estate are only interim services. Future bus routes will be established pending the finalisation of the road network.

Train services:

The site is located approximately 3.8km west of the Riverstone Railway Station which is serviced by the T1 Western Line and T5 Cumberland Line. As this distance exceeds typical walking catchments, the 747 and 757 bus services operate as feeder roads between the MPP and Riverstone Station.

3.7. FLOODING AND TOPOGRAPHY

The site generally slopes downwards at gradients estimated to be 2° from the south east (RL 24.5) to the north west (RL 21.5)

Wood and Grieve Engineers have undertaken a preliminary Flood Impact Assessment (**Appendix S**) which confirms that the site is located outside of flood planning areas provided by Council flood maps and the BGC DCP. The site is, therefore, not flood prone land.

3.8. HERITAGE AND ARCHAEOLOGY

3.8.1. European Heritage and Historical Archaeology

The site does not contain any items of heritage significance nor is it located within a heritage conservation area. The site is located approximately 1km south east of state listed heritage item *No. 00674 (Clydesdale – House, Barn, Cottage and Farm Landscape)*.

Details of the significance of the nearby heritage item are provided in a Heritage Impact Statement contained at **Appendix O**.

3.8.2. Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment Report has been (**ACHAR**) has been prepared by AMAC Group to accompany the proposal is contained at **Appendix P**.

An AHIMS site search and the relevant Development Control Plan (**DCP**) has revealed a registered site (Site No. 45-5-2752) bordering the northern boundary of the subject site. This site contains 3 artefacts within a disturbed context. An ACHAR accompanies this EIS at **Appendix P**.

4. THE PROPOSAL

4.1. DEVELOPMENT OVERVIEW

The key components and features of the proposal are summarised in **Table 4** below.

Table 4 – Key Development Components

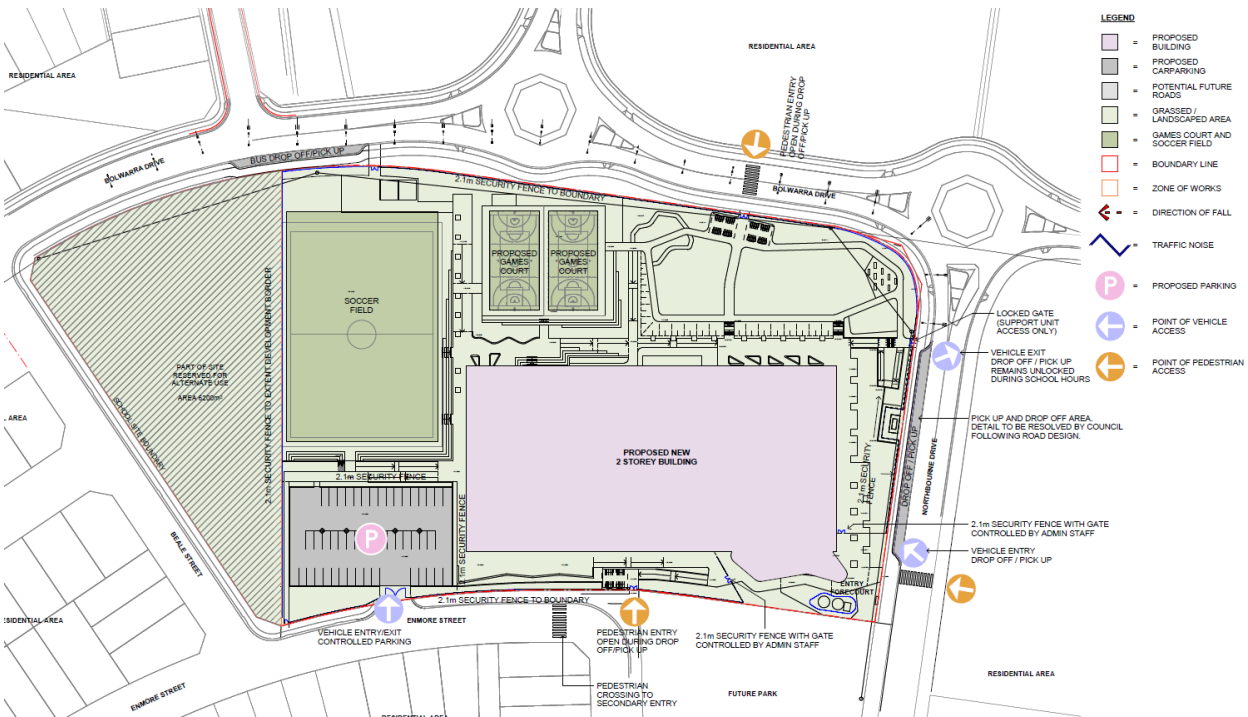
Aspect	Description
Summary	Construction of a new primary school comprising a two-storey multi-purpose school building, outdoor sports facilities, bicycle parking, car parking, site drainage and landscaping works, a signage strategy, and utilities infrastructure connections. A temporary school facility to accommodate a maximum of 500 students is also proposed to be constructed as a contingency should the permanent school not progress as per the program.
Site Area	<p>Total site area: approximately 3 hectares</p> <p>School Site: 23,925m²</p> <p>Part of Site reserved for alternate use: 6,200m²</p>
Earthworks	Bulk earthworks are subject to a separate development approval.
Built form	<p>Temporary School Facility:</p> <p>Single storey demountable buildings including:</p> <ul style="list-style-type: none"> • Administration spaces; • Classroom modules; • A library; and • Male and female toilet block. <p>Permanent School Facility:</p> <ul style="list-style-type: none"> • 40 teaching spaces; • A canteen; • Library; • Multipurpose hall; • Office and administration space; • Staff and student amenities; and • Out of school hours care accommodation. <p>Outdoor facilities:</p> <ul style="list-style-type: none"> • Junior soccer field; • Outdoor play fields and structures; and • Two multipurpose games courts.

Aspect	Description
Uses	An Educational Establishment to accommodate students from Kindergarten to year 6, out of school hours care, and community uses of the sports field, games court, and multi-purpose hall.
Access	The following access points to the new school are proposed: <ul style="list-style-type: none"> • Vehicular access (including service vehicles) is proposed via Enmore Street to the proposed car park. • Primary pedestrian access is proposed via Northbourne Drive to the east. Other pedestrian access points are proposed via the proposed future new road to the north, and Enmore Street to the south. • Emergency vehicle access to the is proposed via the proposed future road to the north.
Car Parking	48 car parking spaces including one accessible space.
Bicycle Parking	Capacity for 148 bicycles comprising 74 total hoops including 72 bicycle hoops for students and 2 for staff members.
Public Domain and Landscaping	A range of hard and soft landscaping is proposed including: <ul style="list-style-type: none"> • New plantings consisting of trees, shrubs, and groundcover planting which comprise native species to the area; • Construction of pathways from the pedestrian access points throughout the school grounds to the main school building, playground areas, and sporting fields.
Utilities Connections	Consent for works to connect the new school to electrical, hydraulic and communications infrastructure service is sought via separate development approval.
Stormwater Drainage	Consent is sought for stormwater drainage works including the construction of an on-site detention tank with capacity for 130m ³ of storage.
Operation hours	School: the new school will operate between 7am to 10pm daily. Out of school hours care: 7am to 7pm weekdays and during school holidays. Sports fields: weekday afternoons until 10 pm, weekends between 7 am and 6pm Multipurpose hall: until 10 pm.
Number of students and staff	<p>Temporary School</p> <p>Students: 500</p> <p>Staff: 25</p> <p>Permanent School</p> <p>Students: 1,000</p> <p>Staff: 50</p>

Aspect	Description
Construction Staging	<p>The proposal is to be constructed in the following stages:</p> <ul style="list-style-type: none"> • Construction Stage 1 (Temporary School): a temporary school facility constructed within the western portion of the development site located on the future sports grounds. This temporary school facility is to accommodate a maximum of 500 students at any given time. Should the permanent school progress as per the program, the temporary school will not be required. • Construction Stage 2 (Construction of Permanent School Facility): a permanent consolidated two storey courtyard building with capacity to accommodate a maximum of 1,000 students.
Jobs	177 construction jobs and 50 operational jobs
CIV	Has been provided to the DPIE but is commercial in confidence at this stage.

Figure 6 and Figure 7 provide a site plan and photomontages of the proposal.

Figure 6 – Site Plan



Source: NRBS

Figure 7 – Photomontage of Proposed Development



Source: NRBS



Source: NRBS

4.2. DESIGN PRINCIPLES

The design rationale for the proposal is described in the accompanying Urban Design Report (**Appendix G**) This provides a detailed assessment of the site and its context and described key design principles.

The following provides a summary of the key design principles of the proposal. Four key objectives have emerged which driven the proposed design.

Create a Campus Heart

- Gardens and paved landscaped courtyards to provide shelter and shade as well as weather protection from winds and storms.
- Create secure spaces that allow breakout from learning nodes and hall for school gatherings.

- Landscaped spaces as outdoor learning areas - 'The Third Classroom'.
- Courtyard design assists in the navigation of the site gradient with integrated ramping.
- The courtyard heart provides a visual connectivity to link the learning areas and other parts of the campus.

A Flexible Innovative Learning Community

- Learning hubs and learning streets as basic node options.
- Ability to easily reconfigure space in multiple arrangements to suit different teaching and learning models.
- Changes in pedagogy can be accommodated from traditional classroom through to team teaching and project based distributed models.

A Connected Campus

- Courtyard links the whole school and learning areas.
- Internal circulation provides visual linkage to all parts of the campus.

Design to be Inherently Sustainable

- Maintain and restore local landscape and create habitat.
- Optimise building for natural ventilation and cooling.
- Minimise building depth.
- Optimise for natural daylighting North-South orientation and minimise exposure to the West.
- Reduce building footprint by having a two-storey building.
- Treat run off on site and capture run off and rainfall for re-use on site.
- Minimise cut and fill- balance earthworks.

4.3. TEMPORARY SCHOOL

4.3.1. Built form and layout

A temporary school plan has been prepared by NRBS architects at **Appendix D** which is accompanied by specification sheets at **Appendix E**. It is proposed to locate the temporary school on the future sports ground and part of the portion of the site reserved for an alternate use within the western portion of the new school site. The location of the school in this portion of the site retains access to the eastern portion of the site for construction of the permanent school facility.

A temporary school plan is provided at **Figure 8**. The proposed temporary school is to accommodate a maximum of 500 students and 25 staff and will comprise:

- Communal hall unit;
- Library unit;
- Administration unit;
- A canteen and canteen servery area;
- Student amenities spaces including bathrooms;
- A support unit including a dedicated outdoor space;
- Student learning facilities including 17 homebase units;
- A central play area;
- A games court and sports field play area; and

- Covered outdoor learning areas.

Figure 8 – Temporary School Plan



Source: NRBS

4.3.2. Landscaping

Temporary landscaping measures are proposed for the temporary school including:

- Soft landscaping for a play area to the west of the temporary school. This is proposed to be within the part of the site reserved for an alternative use and only will be utilised during the temporary school operation period.
- A central play area with soft landscaping.

4.3.3. Site access

Pedestrian access to the temporary school will be provided via:

- A pedestrian walkway access from the western boundary at the drop off and pick up area at Beale Street.
- A pedestrian walkway access from the southern boundary of the site accessed from Enmore street.

A vehicular access point is provided via the two-way driveway access from Enmore Street for the car parking area.

4.3.4. Vehicular Parking

Vehicular parking for the temporary school will be provided for 48 vehicles including one accessible space at an at-grade car park located within the south western portion of the site. This car park will also service the permanent school when constructed.

This carpark is accessed via a two-way driveway accessed from Enmore Street. Use of this carpark will be restricted to school staff only.

4.3.5. Service Vehicles

A dedicated service vehicle area is proposed within the on-site car parking area accessed via a two-way driveway from Enmore street. This area will also service the permanent school when constructed.

4.3.6. Drop off and Pick up Zone

A drop off and pick up zone is proposed within the parking lane on the eastern side of Beale Street. This is for the temporary school only with the permanent drop off and pick up zone proposed to be on the western side of Northbourne Drive.

4.4. BUILT FORM AND URBAN DESIGN

4.4.1. Building Height and Scale

The proposed new school building is two storeys ranging from a maximum height of 9.5m from natural ground level at the eastern (Northbourne Drive) end to 11.9 metres above natural ground level at the western end.

4.4.2. Building Setbacks

The proposed building setbacks create a sensitive built form response and ample separation to residential interface boundaries that minimise bulk, overshadowing, and privacy impacts. Proposed building setbacks include:

- **Eastern Setback – Primary Frontage (Northbourne Avenue):** 14.5m.
- **Southern Setback – Side Boundary (Enmore Street and the future local park):** 25m.
- **Northern Frontage (to the Proposed Future Road):** the built form element of the proposal is well setback from this frontage (approximately 50m) as it located to the south toward the southern boundary with Enmore Road and the future local park. Generous landscaping is proposed to the northern boundary.
- **Western Boundary – (to the part of the site reserved for an alternative use):** generous setbacks proposed (approximately 90-100m) as the built form is located at the south eastern corner of the site.

4.4.3. Gross Floor Area and Floor Space Ratio

Measured in accordance with the relevant BGCPP 2013 definition, the proposed development has a total gross floor area (**GFA**) of 7,739m². This equates to a resultant floor space ratio (**FSR**) of 0.26:1 calculated against the site area of 3 ha.

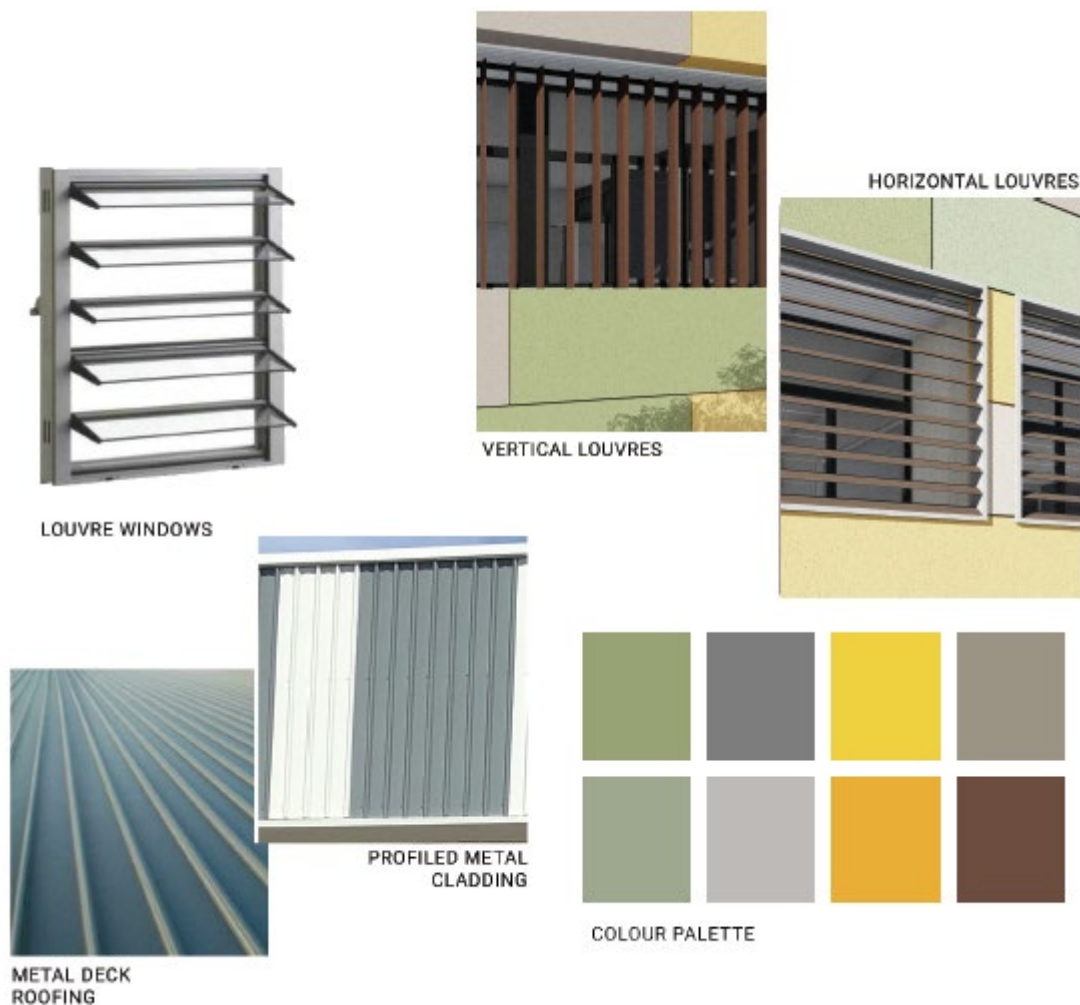
4.5. BUILDING MATERIALS AND FINISHES

The proposal has been designed with internal and external materials and finishes that complement the surrounding natural and built form elements of the Marsden Park locality. The building materials are durable, hardwearing, low maintenance and evoke smart building design (see **Figure 9**). The proposed external materials include:

- Vertical and horizontal louvres;
- Profiled metal cladding; and
- Metal deck roofing.

Colours and textures have been selected with the natural environment of western Sydney, and in particular the Cumberland Plain Region, in mind. The colour palate features greys, greens, and brown cladding panels

Figure 9 – Proposed external materials pallet



Source: NRBS

4.6. CONSTRUCTION STAGING

Planned growth within the Schofields education cluster and timing constraints has necessitated a potential requirement for a temporary school to be included as a construction stage (as a contingency) to ensure that the site can accommodate students at the start of the school year in 2021. Should the permanent school construction progress as per the agreed program, the temporary school will not be required.

Notwithstanding, it is requested that the development consent is structured to enable the staged construction of the new primary school so that the contingency for the temporary school be available to the Applicant should it be required.

A detailed Construction Staging Plan is provided at **Appendix K** which presents two preliminary project construction stage options. These two options are detailed below:

Option 1 – Construction of Temporary School and New School

The following construction stages are proposed for this option:

1. Site office and Temporary School Construction – completion and handover December 2020.
2. School Construction – completion and handover April 2021.
3. Temporary School Removal - completion and handover May 2021.
4. Sports Field Construction - completion and handover July 2021.

5. Landscaping Construction - completion and handover July 2021.
6. Site Office Removal - completion and handover July 2021.
7. Final Landscaping Construction - completion and handover July 2021.

Option 2 – Construction of New School Only

The following construction stages are proposed for this option:

1. Site office and New School Construction - completion and handover August 2020
2. Landscape and Sports Field Construction - completion and handover November 2020
3. Site Office Removal - completion and handover December 2020
4. Final Landscaping Construction - completion and handover January 2021

4.7. CONSTRUCTION MANAGEMENT

A number of reports have been prepared which detail the proposed construction management of the new School site. These include:

- A Construction Staging Plan prepared by Ontoit and contained at **Appendix K**;
- A Preliminary Construction Management Plan (CMP) prepared by Ontoit and contained at **Appendix L**; and
- A preliminary Construction Traffic Management Plan (CTMP) prepared by GHD and contained at **Appendix M**.

The Preliminary Construction Management Plan (CMP) provides a high-level overview of the overall construction program, and details stakeholder management, site security, establishment and storage as well as access to the site during the construction stage. The CMP also provides a Neighbourhood Communications Plan, sediment, dust, noise and vibration plans to mitigate any potential impacts to surrounding development during construction of the school which are discussed in further detail in **Section 10** of this EIS.

The Construction Traffic Management Plan (CTMP) provides a high-level overview of the construction traffic and pedestrian impacts and management works associated with the development. The plan identifies the impacts associated with construction on the local traffic network and outlines potential solutions or mitigating methods which are discussed in further detail in **Section 10** of this EIS.

Construction Work Hours

The proposed construction works will be undertaken during the following hours:

- Monday to Friday – 7:00am to 5:00pm
- Saturdays – 7:00am to 1:00pm
- Sundays and Public Holidays – No Work
- If required, after work hours permits will be sought from the relevant authorities.

Construction Traffic

Access to the site for construction vehicles is proposed to be via Northbourne Drive to the east which is a collector road. The access and exit route is likely to be from the south via Richmond Road, Elara Boulevard and Northbourne Drive (see **Figure 10** below).

Figure 10 – Proposed construction vehicle access route



Source: GHD

4.8. SCHOOL OPERATION

The Proposal will cater for students from Kindergarten to Year 6. The school will have the following capacity following completion of the development:

- 50 full time staff
- 1,000 students

General operation hours for the school will be Monday – Friday 9am - 3pm. Staff and students involved with ancillary activities including lesson planning, sports practice, band practice, or staff meetings may use the site between 7am and 5:30pm.

Table 5 – Out of Hours Use of School Facilities

Use	Proposed
Hall	<ul style="list-style-type: none"> • Intended use by school during school hours. • Occasional evening use for music performance, presentations, parent/teacher nights. • Hall to be made available to the community through a booking system arranged by the school. • Operating times - until 10pm.
OOSH	<ul style="list-style-type: none"> • Out of school hours (OOSH) use of the school facility will operate on school days in the morning from 7am and after school until 7pm and during school holidays between 7am and 7pm.
Library	<ul style="list-style-type: none"> • Intended use by school only. • School hours only.

Use	Proposed
	<ul style="list-style-type: none"> Occasional weeknight evening use for presentations, parent/teacher nights.
Community Use	<ul style="list-style-type: none"> Use of school facilities by external bodies including community groups up to 10pm daily. Use of the proposed school fields by external parties may be proposed subject to discussions.

4.9. PARKING AND SITE ACCESS

A Transport Assessment has been prepared by GHD to accompany this proposal and is contained at **Appendix I**. The report summarises the proposed parking and access provisions for the Marsden Park New Primary School. A summary is provided below.

4.9.1. Parking

Car parking is provided for 48 vehicles including one accessible space at an at-grade car park located within the south western portion of the site. This carpark is accessed via a two-way driveway accessed from Enmore Street. Use of this carpark will be restricted to school staff only.

4.9.2. Service Vehicles

A dedicated service vehicle area is proposed within the on-site car parking area accessed via a two way driveway from Enmore street. Swept paths prepared by GHD have confirmed that a 10.5m front loading waste collection vehicle is capable of accessing the waste collection/service vehicle space within the car park. The vehicle will need to cross some of the parking spaces to access and egress the school. For this reason, a curfew will be applied so that waste/service vehicles occurs outside school activities (at night or early mornings) to minimise interactions with parked cars.

4.9.3. Drop-off and Pick-up Zone

A pick up/drop off zone is proposed along Northbourne Drive, along the main school frontage. The proposed drop off zone is to be indented and be designated as a 'No Parking' zone between 8:00am - 9:30am and 2:30pm – 4:00pm.

4.9.4. Bus Stop

A school bus stop is proposed at the site's northern frontage to the future arterial road to the north. It is proposed that this bus stop be indented subject to future detailed design.

The bus stop will comply with the State Transit Bus Infrastructure Guide (2011) which indicates that a bus zone for a "long rigid bus" is 35 metres, consisting of:

- A bus length of 14.5 metres
- A draw out length of 6.5 metres
- A draw in length of 14 metres.

It is expected that the indented bus zone on the proposed northern road will primarily be used during peak morning and afternoon periods of school activity. The bus stop will occasionally be used by buses for school excursions. These buses would typically use the pick-up / drop-off facility during off-peak periods only (i.e. during school hours) which would minimise any potential queuing impacts with before and after school pick-up/ drop-off periods.

Details about potential school bus services at Marsden Park New Primary School are not currently available. However, St Luke's Catholic College is served by four bus services and there are potential efficiencies in extending these services to Marsden Park New Primary School. It is recommended that the DoE advocate to TfNSW for the provision of school bus services.

4.9.5. Bicycle Parking

The proposal includes the provides for a total of 74 bicycle hoops including 72 dedicated to students and two (2) dedicated to staff members. A bicycle hoop has capacity to accommodate 2 bicycles meaning that the new school will accommodate parking for 144 bicycles. Bicycle storage is proposed to be at the following locations:

- The northern pedestrian entry via Northbourne Drive; and
- The southern pedestrian entry via Enmore Street.

4.9.6. Vehicular Access

Figure 11 below illustrates the proposed vehicular access points to the site. Primary vehicular access to the site is via a two way driveway from Enmore Street. Waste collection vehicles will also use this vehicular access points.

Vehicular access to the drop off and pick up zone will be provided from Northbourne Drive at the site's eastern frontage.

Emergency services vehicles will access the site from the proposed northern road via an access gate at the north western corner of the site. This will provide access to the main sports field and will typically be closed and locked except in the case of emergency.

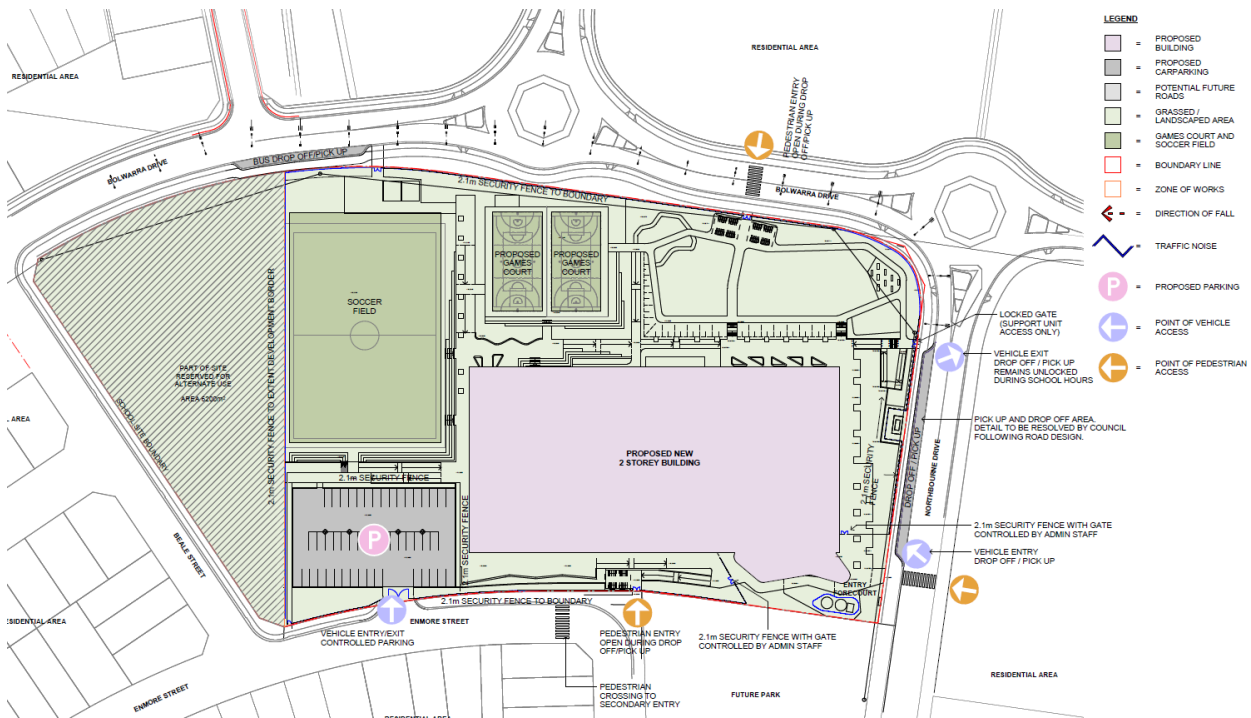
4.9.7. Pedestrian Access

There are three separate pedestrian access points proposed to the new school including:

- Primary pedestrian access to the site will be along Northbourne Avenue and will provide access to the main entry foyer at the eastern elevation. This entrance will remain unlocked during school hours.
- A secondary pedestrian entrance is located at the southern elevation from Enmore street and will remain unlocked during pick up/drop off periods.
- A third pedestrian access is proposed via the proposed future road to the north which aligned with a pedestrian crossing.

Aside from these entrances, students and staff will also be able to enter the site from at the western frontage from the car park.

Figure 11 – Proposed site pedestrian and vehicle access points



Source: NRBS

4.10. LANDSCAPING

A Landscape Strategy has been prepared by NRBS and is attached at **Appendix F**. New landscaped areas, open space and sports facilities will be provided throughout the new school. These spaces will enhance the learning experience provided by the development. The key aspects driving the landscape design of the school includes promoting social interaction, identity and sense of place, presenting a welcoming and safe environment, maximising outdoor learning spaces, providing spaces that are pleasant year round, providing for active and passive uses, creating a sustainable landscape to assist in thermal comfort, selecting robust and hardy materials, and selecting plants that are known to thrive under local conditions with low maintenance requirements.

Proposed landscaping has sought to incorporate topographical features of the site where possible through proposed terrace seating areas or play spaces on embankments. The design proposes landscape buffer zones to its boundaries as well as street tree planting. The landscaped buffer zone to site boundaries will contain native canopy trees with street trees to be selected in conjunction with Blacktown City Council. The existing locality is currently devoid of tree planting. Areas within the site will also feature tree planting to enhance amenity by providing summer shade to seating and play areas as well as softening building facades. Shade tree planting is proposed to car park areas. Native species of trees, shrubs, grasses, and groundcovers have been selected to be included in the plant schedule to ensure consistency with the endemic and local Cumberland Plain Woodland community.

The open space areas of the school are well connected to the building form. The large central courtyard space is accessed from multiple areas including the main entrance, library and circulation spaces. The school hall opens to a covered space to the north and an open terrace to the south. The northern covered space is open to the north and west connecting to sports courts and a sports field. Break out spaces to the east and north are directly accessed from learning spaces.

The arrangement of paths, stairs and ramps has been undertaken in a manner to accommodate direct movement between key site areas and facilities. Circulation paths are clearly defined and distinct to areas of play, passive recreation or other use, through changes in materials and colour. A specific purpose courtyard adjoins the special needs learning spaces. DDA compliant ramp access connects all landscape areas.

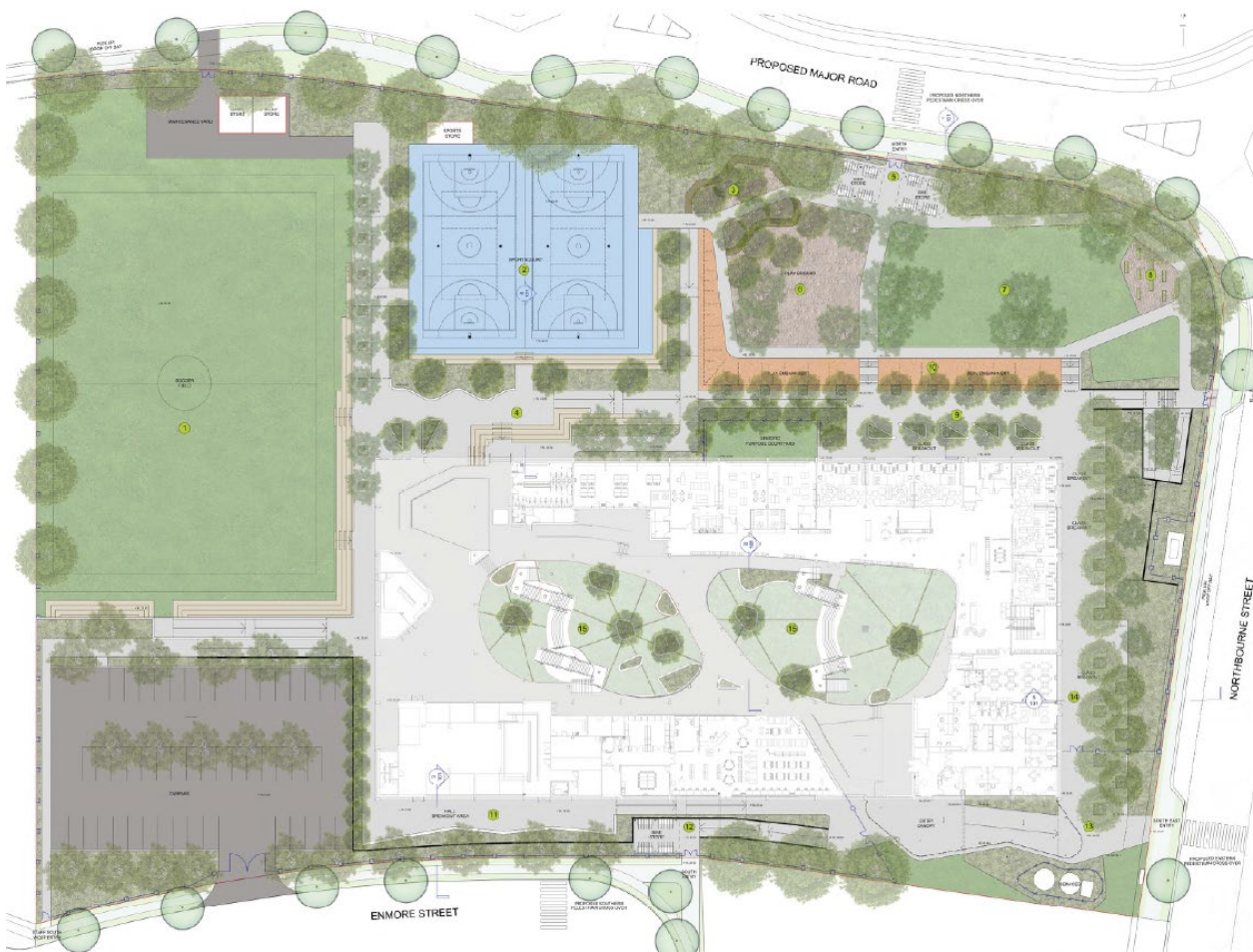
Key elements of the landscape concept plan include:

- Sports field with amphitheatre style seating;

- Sports court with amphitheatre style seating and plating to the perimeter;
- Learning boardwalk through planting;
- Northern entry with bicycle storage hoops;
- Playground area with nature play elements;
- Open free play turf area;
- Veggie gardens with raised planters;
- Class breakout spaces with raised planters and seating
- Rubber Sofffall embankment with climbing play elements;
- Hall breakout space with low seating walls;
- Southern entry with bicycle storage hoops;
- Mean entry with planting and feature canopy;
- Class breakout spaces with dense shade trees and seating; and
- Internal breakout spaces with synthetic turf, raised planters and low seating walls.

The landscape strategy is shown in Figure 12.

Figure 12 – Landscaping Amalgamation Plan



Source: NRBS

4.11. WASTE MANAGEMENT

A Waste Management Plan has been prepared by GHD and is contained at **Appendix X**. The report provides for the demolition, construction, and ongoing waste management onsite.

4.11.1. Construction Waste

An outline of the proposed Construction and Demolition Waste Management is included at Section 5 of the Waste Management Plan at **Appendix X**.

Approximately of 275 tonnes of construction related waste is estimated to be produced during the construction of the proposed new school. Wastes generated on the site during construction will be managed and minimised by a combination of waste planning initiatives and on site controls. Waste planning initiatives will include:

- Designing buildings to minimise on site cutting of components;
- Maximising on site assembly rather than fabrication tasks;
- Careful ordering of materials such as sand and building products to match quantities with amounts required, and on time ordering rather than having materials stored on site for months before being used; and
- Segregating materials and providing weather protection for stored materials on site would maximise their fitness for use and reduce spoilage.

On site waste handling controls will include:

- Developing and implementing a Construction Waste Management Plan.
- Segregating wastes generated on site by using different skip bins for recycling and waste, with separate bins for different recyclable materials, and ensuring all waste disposal bins are clearly marked;
- Keeping records of quantities of waste and recycled materials disposed of, and the destinations of these materials and ensuring that wastes are only disposed of to licenced facilities.

4.11.2. Ongoing Operation Waste

An outline of the proposed Ongoing Waste Management is included at Section 6 of the Waste Management Plan at **Appendix X**. GHD have confirmed that the site design and proposed servicing arrangements during operations are expected to meet the requirements of the *Blacktown Growth Centre Precincts Development Control Plan 2016* and the NSW EPA (2012) '*Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities*'.

Based on the information provided and benchmark data from similar developments, the primary waste streams expected to be generated in the ongoing operation of the School would be:

- General solid waste (putrescible) – e.g. food scraps and litter.
- General solid waste (non-putrescible) – e.g. garden waste, paper, cardboard, classroom scraps, containers.

Hazardous waste is not expected to be generated during normal school operations.

During operation of the school, it is estimated that approximately 1,500 litres of garbage and 500 litres of recycling would be generated each week. GHD have estimated that the following waste collection equipment would be required to deal with the estimated operational waste generation:

- Two 1,100 litre rear lift bin per week for garbage
- One 660 litre bin per week for recyclables.
- It may also be necessary to have a second 660 litre bin for bulky cardboard. Some contractors may also provide a separate bin for office paper.
- In addition, items such as batteries and fluorescent tubes may be separated by staff for recycling.

The garbage bins could be collected more frequently than weekly, if only a single 1,100 litre bin is desired, or a larger steel bin could be used. The quantities estimated expected to reduce over time, if waste minimisation initiatives can be successfully implemented at the school.

Bins will be stored at the proposed waste collection area, which will be located in the north west corner of the on-site car parking area. Allowance has been made in the car park design for either a typical front lift or rear lift waste collection vehicle to access and lift the bins located in the waste collection area. Swept path analysis prepared by GHD confirms that waste collection vehicles will be able to circulate and enter and exit the car park in a forward direction.

4.12. SITE SERVICES

Separate development approval will be sought to connect the site to essential services infrastructure and therefore consent is not sought for site services. Notwithstanding this, Lucid Consulting prepared the following reports to demonstrate that the site can be readily connected to required electrical, hydraulic, and communications infrastructure:

- Hydraulic Infrastructure services and water cycle management report (**Appendix T**)
- Electrical and Communications Infrastructure Report (**Appendix U**)

Lucid Consulting reviewed the existing electrical infrastructure and consulted with Endeavour Energy. These investigations determined that there is existing high voltage underground, low voltage distribution cabling and streetlighting infrastructure in the vicinity of the proposed development site. It is proposed that the existing high voltage underground network cable be connected to a new Pad-Mount Substation located at the south eastern corner of the site. Lucid Consulting have also confirmed that there is NBN infrastructure within the vicinity of the site, and that new communications connections can be established to the site.

An Integrated Water Management Plan (**IWMP**) has been prepared by Lucid Consulting to accompany the proposal at **Appendix T**. The following strategies are proposed to achieve identified goals in the IWMP:

- A new permanent potable water supply connection into Sydney Water street infrastructure;
- Utilisation of sanitary fixtures with a high efficiency level as per EFSG Guidelines and minimum WELS rating from AS6400;
- Rainwater recycling system consisting roof rainwater harvesting and reuse for non-potable applications such as toilet flushing, washdown hose taps and landscape irrigation; and
- Backflow prevention devices proposed for potable water supply in area with potential contamination hazard.

Lucid Consulting have undertaken a preliminary site infrastructure connection audit to determine requirements for water infrastructure to services the new school. Relevant applications will be made to local water authorities for the provision of the following infrastructure services. In summary the following connections are proposed:

- Potable water is proposed to be supplied from the existing 200mm oPVC Sydney Water main located on Northbourne Drive.
- The main wastewater drainage system is proposed to be discharged into the existing 375mm GRP Sydney water sewer main running along the north east boundary of the site.
- Natural gas is to be supplied from the existing 32NY 210kPa Jemena Gas West, natural gas main located on Enmore Street.
- A new 150mm nominal diameter Fire Services water connection is proposed into the existing 200mm oPVC Sydney Water town's main located within Northbourne Drive. The new connection is to be provided with a double testable check valve in accordance with regulatory requirements.
- The fire hydrant system is proposed to be supplied directly from the town's main via a fire hydrant booster, pump and storage tank infrastructure.

4.13. STORMWATER MANAGEMENT

A Stormwater Management Report has been prepared by Wood and Grieve Engineers and is contained at **Appendix S**. The report has been developed to integrate the existing system and accommodate the new works required for the proposal, as well as comply with Council's requirements.

Stormwater will be managed through a series of controls to ensure the proposal does not adversely impact on stormwater flows and the water quality of the receiving waterways downstream of the site. During the construction stage, erosion and sediment control measures will need to be implemented. During operations, surface areas will be drained through a variety of methods in accordance with AS3500.3:2015 discussed in the Stormwater Management Report at **Appendix S**. The proposed in-ground drainage has been designed to meet the following criteria:

- In the minor design storm event (20 year) there will be no surcharging of the in-ground drainage system; and
- In the major design storm event (100 year) there will be no uncontrolled discharge from the site onto the residential properties to the east of the site.

Surface runoff from the development sites will be directed to stormwater inlet structures using the design topography of these elements. The inlet structures have been designed to adequately convey the surface runoff into the in-ground drainage network. The runoff will then be conveyed underground across the site through a pit and pipe system and then to the legal point off discharge using gravity and the geometric falls of the pipe system.

Stormwater runoff will be contained by on-site detention tank which will attenuate the total discharge flows to the 100year ARI pre-developed peak flows. The on-site detention will be used to attenuate discharge and ensure that the post-developed flows are less than the pre-undeveloped flows and do not affect the downstream properties. This OSD tank is to provide 130m³ of storage.

4.14. SCHOOL SIGNAGE STRATEGY

Consent is not sought for signage. Notwithstanding this, Appendix B of the Landscape Strategy at **Appendix F** of this EIS includes a signage strategy which is to be further detailed at a later stage. The landscape design indicates the proposed identity signage strategy for the school. In summary this includes:

- Column type signage integrating electronic signage adjacent the main school entry.
- Wall / Fence signage with school name adjacent to the main school entry.
- Wall / Fence signage adjacent to the secondary entries to the north, north east and south of the site.

The content of the signage, its exact location and finishes are to be detailed at a later stage.

5. STATUTORY PLANNING CONTEXT

5.1. OVERVIEW

In accordance with the SEARs, the following statutory planning policies have been considered in the assessment of the proposal:

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2000*
- *Biodiversity Conservation Act 2016*
- *State Environmental Planning Policy (State & Regional Development) 2011*
- *State Environmental Planning Policy (Infrastructure 2007)*
- *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*
- *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*
- *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*
- *Draft State Environmental Planning Policy (Remediation of Land*
- *Draft State Environmental Planning Policy (Environment)*

Compliance with the relevant controls contained within the above statutory planning policies is discussed below.

5.2. ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

The *Environmental Planning and Assessment Act 1979 (EP&A Act)* and the *Environmental Planning and Assessment Regulation 2000 (EP&A Regulation)* provide the framework for the statutory environmental planning in NSW. They include provisions relating to approval of development to ensure that proposal which have the potential to impact the environment are subject to detailed assessment.

The proposed development demonstrates consistency with the objects of the EP&A Act as discussed in the below table.

Table 6 – Objectives of the EP&A Act 1979

Object	Consideration
(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 proposed development conserves and manages resources by providing for an efficient and effective new school development that will promote the social and economic welfare of the community.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The development incorporates a number of ESD measures outlined in the accompanying ESD report at Appendix N .
(c) to promote the orderly and economic use and development of land,	The development represents efficient economic use of the land cognisant with its zoning and the MPP

Object	Consideration
	structure plan that identifies the site for use as an educational establishment.
(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 development has been designed and is proposed to operate in a manner that minimises impacts to the environment. The accompanying Biodiversity Assessment (at Appendix Z) has concluded that the development will not impact on the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	The cultural heritage of the site has been considered in the accompanying Heritage Impact Statement. The ACHAR accompanying the proposal has confirmed that the site contains three artefacts within a disturbed context. Accordingly, an ACHAR accompanies this EIS at Appendix P . For further discussion relating to Aboriginal cultural heritage, refer to Section 10 of this EIS.
(g) to promote good design and amenity of the built environment,	Good design and amenity has been achieved through implementation of design excellence principles as detailed in the accompanying report at Appendix G .
(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 so as to ensure 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,	The proposal is the result of consultation with a range of state government agencies and the Blacktown City Council detailed at Section 7 of this EIS.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Applicant has engaged with relevant government agencies in the preparation of this EIS. The local community has also been engaged throughout the planning, design and construction phases to obtain their feedback. Engagement activities undertaken to inform the preparation of this EIS included letter box drops, newspaper advertisements and community engagement sessions at Rouse Hill Town Centre, Riverstone Library and Riverstone Village Shops. In addition to these engagement activities, a project website has been developed along with broadcast emails to

Object	Consideration
	<p>provide updates on the project and advertise upcoming information session.</p> <p>The consent authority will further provide opportunity for the involvement and participation of agencies and the community during the statutory assessment process in accordance with the requirements of relevant legislation.</p>

5.3. ENVIRONMENTAL PLANNING AND ASSESSMENT REGULATION 2000

This EIS has been prepared in accordance with Clauses 6 and 7 of the EP&A Regulation.

5.4. BIODIVERSITY CONSERVATION ACT 2016

The *Biodiversity Conservation Act 2016* (BC Act) is a regulatory framework for assessing and offsetting the biodiversity impacts of proposals and activities. The BC Act contains provisions relating to flora and fauna protection, threatened species and ecological communities listing and assessment, a single BAM, and a Biodiversity Offsets Scheme (BOS) for the calculation and retirement of biodiversity credits and biodiversity assessment and planning approvals. The BC Act has been considered in the preparation of this EIS and in the provision of a Flora and Fauna Assessment at **Appendix Z**. The site is devoid of vegetation except for a strip of grass in the northern portion. No trees are proposed to be removed. Ecological have confirmed that site is biodiversity certified pursuant to the Biodiversity Conservation Act 2016.

Accordingly, the proposal satisfies the provisions of the BC Act.

5.5. STATE ENVIRONMENTAL PLANNING POLICY (STATE & REGIONAL DEVELOPMENT) 2011

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) identifies development types that are of state significance, or infrastructure types that are of state or critical significance. Under the SRD SEPP, state significant educational Establishments are:

- (1) *Development for the purpose of a new school (regardless of the capital investment value).*

The proposal is for a new 'educational establishment' and therefore is SSD. Accordingly, an SSD application is to be lodged with the DPIE for determination.

5.6. STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) provides the legislative planning framework for infrastructure and the provision of services across NSW. Since gazettal of *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017* on 1 September 2017, each of the provisions that related to educational establishments within ISEPP have been repealed. Accordingly, the ISEPP no longer applies to the proposal.

5.7. STATE ENVIRONMENTAL PLANNING POLICY (EDUCATION ESTABLISHMENTS AND CHILD CARE FACILITIES) 2017

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education SEPP), provides the legislative planning framework for the effective delivery of educational establishments and early education and care facilities across the State.

5.7.1. Clause 35 Schools - development permitted with consent

The Education SEPP establishes consistent State-wide assessment requirements and controls, that override development standards contained within other environmental planning instruments. Part 4 of the Education SEPP identifies school specific development controls, with clause 35 Schools—development permitted with consent containing the relevant controls. The proposal has been assessed against the relevant provisions of Part 4 within the following table.

Table 7 – Education SEPP Compliance Table

Clause	Proposal	Compliance
Clause 35 Schools—development permitted with consent		
(1) Development for the purpose of a school may be carried out by any person with development consent on land in a prescribed zone.	The proposed development is located within the R2 (Low Density Residential) zone, which is a prescribed zone for the purposes of the Education SEPP.	YES
(2) Development for a purpose specified in clause 39 (1) or 40 (2) (e) may be carried out by any person with development consent on land within the boundaries of an existing school.	Development consent is sought for the proposed works.	YES
(5) A school (including any part of its site and any of its facilities) may be used, with development consent, for the physical, social, cultural or intellectual development or welfare of the community, whether or not it is a commercial use of the establishment.	Joint and shared use of facilities is encouraged to make school assets available to the community outside school hours and to give schools access to community facilities. At this point in time, there are no shared use or joint use arrangements in place. SINSW will continue to explore opportunities for shared and joint use of its facilities.	YES
(6) Before determining a development application for development of a kind referred to in subclause (1), (3) or (5), the consent authority must take into consideration: (a) the design quality of the development when evaluated in accordance with the design quality principles set out in Schedule 4, and (b) whether the development enables the use of school facilities (including recreational facilities) to be shared with the community.	This EIS addresses the design quality of the development. A formal response to the Schedule 4 School Design Principles is included in the Urban Design Report prepared by NRBS (refer to Appendix G). Future joint and shared use of the new school is being explored by SINSW. The new school is capable of being available for shared use with the community.	YES
(7) Subject to subclause (8), the requirement in subclause (6) (a) applies to the exclusion of any provision in another environmental planning instrument that requires, or that relates to a requirement for, excellence (or like standard) in design as a	No designed excellence requirements for the proposal are listed in the <i>Blacktown Growth Centres Precinct Plan 2013</i> (BGCPP 2013).	YES

Clause	Proposal	Compliance
prerequisite to the granting of development consent for development of that kind.		
(8) A provision in another environmental planning instrument that requires a competitive design process to be held as a prerequisite to the granting of development consent does not apply to development to which subclause (6) (a) applies that has a capital investment value of less than \$50 million.	A competitive design process is not required in any relevant planning instruments.	YES
(9) A provision of a development control plan that specifies a requirement, standard or control in relation to development of a kind referred to in subclause (1), (2), (3) or (5) is of no effect, regardless of when the development control plan was made.	Noted. Notwithstanding this, an assessment against the relevant provisions of the <i>Blacktown Growth Centres Precinct Development Control Plan 2018</i> (BGC DCP) is provide at Section 5.14 of this EIS.	YES
(10) Development for the purpose of a centre-based child care facility may be carried out by any person with development consent on land within the boundaries of an existing school.	A centre-based child care facility is not proposed.	YES
(11) Development for the purpose of residential accommodation for students that is associated with a school may be carried out by any person with development consent on land within the boundaries of an existing school.	Residential accommodation for students is not proposed.	YES

5.7.2. Clause 42 – Development Standards

Clause 42 of the Education SEPP allows the proposal to contravene a development standard imposed by the Education SEPP or any other environmental planning instrument under which the consent is granted:

‘Clause 42 - State significant development for the purpose of schools—application of development standards in environmental planning instruments

Development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted.’

The proposed new school exceeds the Height of Building development standard listed in the BGCPP 2013 by 4m at the south western end of the proposed building. However, as per Clause 42 of the Education SEPP, development consent may still be granted without the need for a formal Clause 4.6 Variation to the development standard.

Notwithstanding this, the provisions of Clause 4.6 are considered at **Section 5.13.3** of this EIS for completeness.

5.7.3. Schedule 4 – Design Quality Principles

Clause 35(6) requires the consent authority to consider the design quality principles set out in Schedule 4 of the Education SEPP prior to determination. The proposal has been designed having regard to the design quality principles and responds to each of them in the following way:

- Principle 1: Context, built form and landscape

The proposal will be two storeys in scale, which is in keeping with the low scale of surrounding residential development. The proposal also provides a landscape concept plan which includes

landscaped gardens, outdoor play areas and sporting facilities that will complement the existing character and future character of Marden Park.

- Principle 2: Sustainable, efficient and durable

The proposal will adopt a range of ESD initiatives, and an ESD Report is attached at Appendix N. The proposal will also provide positive social and economic benefits for the local community by ensuring that teaching facilities are meeting contemporary educational needs.

- Principle 3: Accessible and inclusive

The proposal is capable of complying with relevant provisions for accessibility, and an BCA and Accessibility Report accompanies this EIS at Appendix V and Appendix W.

- Principle 4: Health and safety

CPTED measures have been incorporated into the design and management of the site to ensure a high level of safety and security for students and staff, such as appropriate fencing, access control measures, adequate lighting and wayfinding signage as well as the use of resistant and durable building materials. A range of open spaces and sports facilities are proposed for students to encourage active recreation.

- Principle 5: Amenity

The proposal will provide high quality facilities, spaces and equipment for use by students and staff. These areas will provide students with an enhanced learning environment.

- Principle 6: Whole of life, flexible and adaptive

The proposal involves the construction of new school buildings, these will be designed to ensure flexibility and longevity.

- Principle 7: Aesthetics

The proposal will have high quality external finishes, which will be aesthetically pleasing. The proposal is an appropriate scale and form for the residential context.

A more detailed assessment of the proposal against the design quality principles is undertaken within the Urban Design Report prepared by NRBS at **Appendix G**.

5.7.4. Clause 57 – Traffic Generating Development

Clause 57 stipulates that development for the purposes of an 'educational establishment' that will accommodate 50 or more students and will involve the development of a new premises on a site that has direct vehicular or pedestrian access to any road requires referral to the RMS. RMS has been consulted during the preparation of this EIS. This consultation is documented in the Traffic Impact Assessment prepared by GHD at **Appendix I**. A referral to the RMS will be made during the assessment of the SSDA in accordance with Clause 57 of the Education SEPP.

5.8. STATE ENVIRONMENTAL PLANNING POLICY NO. 64 ADVERTISING AND SIGNAGE

State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64) aims to ensure that advertising and signage is compatible with the desired amenity and visual character of an area.

The proposal does not seek detailed planning approval for any signage. Any future informational, directional, and wayfinding signages to be proposed on site will be checked against the assessment criteria on Schedule 1 of the Education SEPP – Exempt Development. If necessary, a development application can be lodged to seek consent for signage.

5.9. STATE ENVIRONMENTAL PLANNING POLICY NO.55 – REMEDIATION OF LAND

State Environmental Planning Policy No.55 – Remediation of Land (SEPP 55) provides a state-wide planning approach for the remediation of land and aims to promote the remediation of contaminated land to

reduce the risk of harm to human health or the environment. Clause 7(1) requires the consent authority to consider whether land is contaminated prior to the issuance of consent to a development application.

A Detailed Site Contamination Investigation has been undertaken to accompany this EIS at (**Appendix Q**). The investigation provides a review of available and historical site information and an intrusive soil investigation to provide recommendations and data on potential contamination at the site. These investigations were used as the basis for a conceptual site model prepared to identify potential contamination sources such as imported fill and agricultural related activities.

Intrusive investigations were undertaken which identified that the site is underlain by filling to depths of 3.5m. This fill is underlain by natural clay soils with shale bedrock at depths to 5.5m to 7m. Groundwater was recorded at depths of 2.2m to 5.6m.

Laboratory testing was undertaken to determine levels of contamination present in collected soil and groundwater samples. In summary the following results were recorded in the Contamination Assessment:

- **Soil:** all primary sample results for common contaminants and properties were below laboratory site assessment criteria. Some heavy metals were found in soils, however, these were found to be within site assessment criteria and therefore do not present a contamination hazard. No asbestos was observed in any samples above the laboratory limit of detection.
- **Groundwater:** concentrations of known contaminants in groundwater samples were below site assessment criteria. A significant exceedance of the chemical level levels for Manganese and minor exceedances of Nickel, Cadmium, Nickel and Zinc was encountered. It is expected that given the depth of groundwater that the impact on the development will be low. Notwithstanding, Douglas Partners have recommended that further testing of the groundwater be undertaken to confirm this conclusion.
- **Filling:** all contaminant concentrations for the analysed fill samples were within the contaminant thresholds for general solid waste.
- **Natural Waste:** all analytical results for the analysed natural samples including clay, gravel, soil or rock fines were within background ranges.

To appropriately manage unexpected potential contamination issues encountered during development works, Douglas Partners recommend the implementation of an unexpected finds protocol during the development at this site. Additionally, any materials requiring off-site disposal must be classified, managed and disposed in accordance with the *Protection of the Environment Operations Act 1997*.

Based on their detailed site contamination investigations Douglas Partners consider that the site is suitable for the proposed use as a school. Accordingly, the proposal is considered to comply with provisions of SEPP 55 and is suitable its intended use.

5.10. DRAFT STATE ENVIRONMENTAL PLANNING POLICY (REMEDIATION OF LAND)

The *Draft State Environmental Planning Policy (Remediation of Land)* is the proposed new land remediation SEPP set to replace SEPP 55. Public exhibition of the 'explanation of intended effect' for the Draft Remediation SEPP and draft planning guidelines was completed in April 2018.

The Draft Remediation SEPP will retain the objectives of SEPP 55 and reinforce the successful aspects of the framework. In terms of relevant changes applicable to development applications, clause 7 of SEPP 55 is proposed to be incorporated into the Draft Remediation SEPP. In addition, the list of potentially contaminating activities and the purpose of a 'preliminary site investigation' (PSI) and 'detailed site investigation' (DSI) will be integrated into clause 7 of the Draft Remediation SEPP

Notwithstanding the above draft amendments SEPP 55, the contamination assessments carried out and summarised in **Section 5.10** of this EIS remain valid and consistent with the objectives of the proposed amendments.

5.11. DRAFT STATE ENVIRONMENTAL PLANNING POLICY (ENVIRONMENT)

The draft State Environmental Planning Policy (Environment) 2017 (Environment SEPP) aims to consolidate seven environmental existing SEPPs including the Sydney Regional Environmental Plan No 20 – Hawkesbury- Nepean River. The consolidation will modernise provisions to remove duplication, respond to new evidence, changed circumstances and better align with community expectations.

The draft SEPP will result in a new Ministerial 117 Direction for preparing LEPs including for the Hawkesbury-Nepean River catchments. The Explanation of Intended Effect (EIE) for the Environment SEPP was on exhibition from 31 October 2017 until 31 January 2018. The EIE explains that the consolidated SEPP proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.

The proposal is consistent with the draft SEPP (Environment) as it provides a Stormwater Management Report (**Appendix S**) and Hydraulic Infrastructure Services and Water Cycle Management Report (**Appendix T**) which address methods to minimise water consumption, reduce stormwater runoff and improve water quality to ensure impacts to the Hawkesbury-Nepean River system are minimised.

5.12. STATE REGIONAL ENVIRONMENTAL PLAN NO 20 – HAWKESBURY-NEPEAN RIVER

Part 2 of *Sydney Regional Environmental Plan No. 20 – Hawkesbury Nepean River (SREP)* contains general planning considerations, specific planning policies, and recommended strategies that the relevant consent authority is required to take into consideration in relation to the impacts of development on catchment management environmentally sensitive areas, water quantity, cultural heritage, flora and fauna, riverine scenic quality, rural residential and urban development, aquaculture, recreation, and tourism.

As detailed in the accompanying documentation, the proposal is capable of compliance with relevant requirements of SREP 20. The proposal contributes to improved water quality by employing stormwater and sediment and erosion mitigation measures. Suitable mitigation measures are included at **Section 10** of this EIS. The development controls outlined in Part 3 of the SREP have been reviewed and do not relate to this development application as there are no controls for educational establishments.

5.13. STATE ENVIRONMENTAL PLANNING POLICY (SYDNEY REGIONAL GROWTH CENTRES) 2006

The site is located within the North West Growth Centre pursuant to *State Environmental Planning Policy (Sydney Regional Growth Centres) 2006* (Growth Centres SEPP). Pursuant to the Growth Centres SEPP Land Application Map, the site is located within land to which Blacktown Growth Centres Precinct Plan 2013 (BGCPP 2013) (Appendix 12, Clause 1.3). This section provides an assessment of the proposal against the relevant controls of the BGCPP 2013.

5.13.1. Land Use Zoning

The site is zoned R2 (Low Density Residential). The objectives of the R2 Zone are stated as follows:

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To allow residents to carry out a reasonable range of activities from their homes, where such activities are not likely to adversely affect the living environment of neighbours.
- To support the well-being of the community, by enabling educational, recreational, community, religious and other activities where compatible with the amenity of a low density residential environment.

The proposal is consistent with the above objectives in that:

- It supports the educational needs of the community by providing a new school development within a low density residential environment.

- It provides important educational infrastructure that services the day to day needs of residents of the Marsden Park community.

5.13.2. Permissibility

The proposal is for an Educational Establishment which is defined by the BGCPP 2013 to mean:

means a building or place used for education (including teaching), being:

(a) a school, or

(b) a tertiary institution, including a university or a TAFE establishment, that provides formal education and is constituted by or under an Act.

Development for the purposes of an Educational Establishment is permitted with consent within the R2 (Low Density Residential) zone pursuant to the BGCPP 2013. The proposal is therefore permissible with consent.

5.13.3. Height of Building

The site is subject to a maximum building height control of 9m.

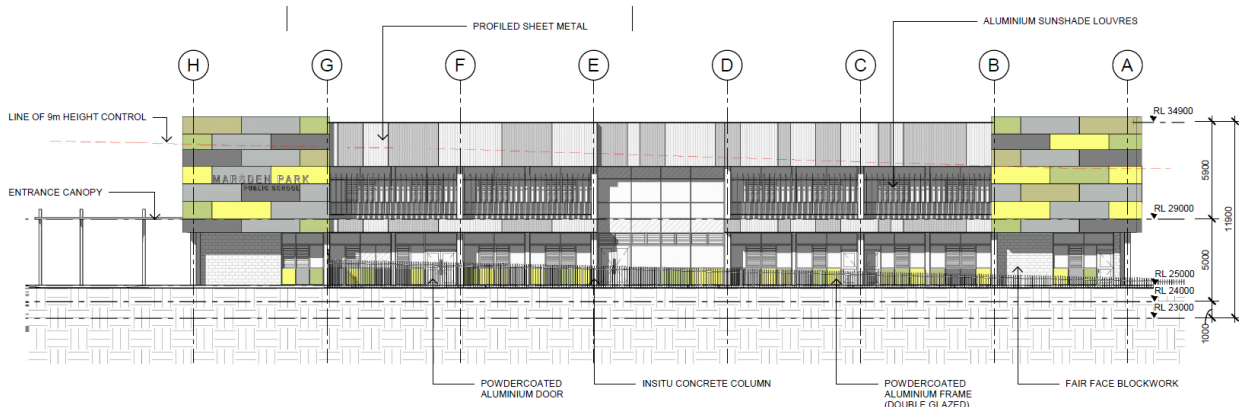
The proposal has a maximum building height of 11.9m measured from the lowest point of the existing ground level to the highest point of the building, which exceeds the development standard by 1.9m or 11.1%. The extent of the height non-compliance is shown in **Figure 13** and **Figure 14** below. The height non-compliance is a consequence of the site topography and is generally 1m across the southern elevation and extends to 2.9m in the western portion of the building due to a step in the natural ground level. The site slopes from the south east to the north west meaning that the non-compliance is greater in the northern portion of the school. This part of the building is located away from the residential development fronting Enmore Street.

Figure 13 – Building Height non-compliance southern elevation



Source: NRBS

Figure 14 – Building Height non-compliance eastern elevation



Source: NRBS

A Clause 4.6 variation request would be required to vary the height of building standard. However, Clause 42 of the ESEPP states that:

“Development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted.”

As such a Clause 4.6 variation is not required. Notwithstanding, a justification for the exceedance of the height of building development standard is provided below.

Consistency with the Objectives of Clause 4.3 Height of Buildings

The objectives of the Height of Buildings development standard are:

- “(a) to establish the maximum height of buildings,*
- (b) to minimise visual impact and protect the amenity of adjoining development and land in terms of solar access to buildings and open space,*
- (c) to facilitate higher density development in and around commercial centres and major transport routes.”*

The proposal is consistent with the above objectives in that:

- The massing of the building is located at the south eastern corner of the site along Northbourne Drive Streetscape to visual impacts to future neighbouring dwellings to the south west along Enmore Street
- There is an absence of tangible impacts to the amenity of adjoining residential uses in the immediate locality as a result of the minor height non-compliance in terms of overshadowing, overlooking, or privacy issues; and
- The proposal will facilitate a new educational establishment that is of an appropriate two storey scale in an accessible location within connection to state roads (Richmond Road) and planned collector roads (Northbourne Drive and the proposed future road to the north of the site).

Strict compliance with the development standard is unreasonable and unnecessary

Strict compliance with the control is unreasonable and unnecessary in the circumstances of the case for the following reasons:

- The proposal has no impact on heritage values or significant views or vistas;
- The proposal provides an appropriate two storey-built form scale which is consistent with the desired future character of the locality;
- The proposed built form is appropriately set back from nearby residential uses and major arterial roads to maintain the environmental amenity of future students of the new school and residents in the surrounding locality;
- The proposal is a critical social infrastructure contribution for an area with projected population growth resulting in expected increases in student enrolments by approximately 2,573 students by 2031.
- The minor height non-compliance allows for greater provision of high-quality open space within the remainder of the site to the benefit of students. A compliant scheme would result in a larger footprint and a reduction in play space meaning the proposal would not being capable of meeting rates of open space per student.
- The development is fully compliant with relevant Australian Standards including the BCA, DDA, which includes the need to provide appropriate floor to ceiling heights to facilitate natural ventilation and airflow consistent with ESD principles;
- A multipurpose hall is proposed at the western portion of the school building that can be converted from a school hall to a basketball court which necessitates a floor to ceiling height that causes the noncompliance in this portion of the site;
- The proposed built form is a result of a careful consideration of site-specific factors including topography, overland stormwater runoff flows, solar access to adjoining residential land uses to the south west, and site arrangement and layout;

- There is an absence of tangible impacts to the amenity of adjoining residential uses in the immediate locality as a result of the minor height non-compliance in terms of overshadowing, overlooking, or privacy issues; and
- The site can accommodate the proposed density as it will have negligible traffic and parking impacts.

(b) Environmental planning grounds to justify contravening the development standards

There are sufficient environmental planning grounds to justify contravening the development standards in that:

- The proposal is a logical and co-ordinated development of the site for school use. It is also identified in the MPP as a school site;
- It will result in improvements to the physical appearance of the site through a well-designed building that is modern and responsive to site context, constraints, and its intended function;
- The architectural design provides a good quality built form outcome for the site given its northern orientation and proximity to busy collector roads to the north and east; and

Strict compliance is unreasonable as enrolment capacity needs to increase across the Blacktown LGA and more specifically the Marsden Park Precinct to accommodate the growing population.

5.13.4. Other Development Standards

Other relevant provisions contained in the BGCPP 2013 are addressed in **Table 8**

Table 8 – BGCPP 2013 Compliance Table

Clause	Control	Proposal	Complies
5.10 Heritage Conservation	<p>The site does not contain any heritage items nor is it located within a heritage conservation area.</p> <p>The site is, located within proximity to state listed heritage item No. 00674 (Clydesdale – House, Barn, Cottage and Farm Landscape).</p>	<p>A Heritage Impact Statement and Aboriginal Cultural Heritage Report are attached at Appendix O and Appendix P respectively.</p> <p>The proposal is not expected to unreasonably impact on the heritage significance of the site.</p> <p>Aboriginal Heritage and European Built Heritage matters are discussed in more detail at Section 8.8 and 8.9 of this report. The proposal will have no adverse impacts on the heritage significance of the heritage item in the vicinity of the site.</p>	Yes
6.1 Public utility infrastructure	<p><i>Development consent must not be granted for development on land to which this Precinct Plan applies unless the consent authority is satisfied that any public utility infrastructure that is essential for the proposed development is available or that adequate arrangements have been made to make that infrastructure available when it is required.</i></p>	<p>The proposal incorporates essential infrastructure provisions as outlined in the Hydraulic Infrastructure Services and Water Cycle Management Report (Appendix T) and Electrical & Communications Infrastructure Report (Appendix U).</p>	Yes

5.14. BLACKTOWN CITY COUNCIL GROWTH CENTRE PRECINCTS DEVELOPMENT CONTROL PLAN 2016

The site is located within the North West Growth Centre and is therefore subject to the provisions outlined in the Blacktown Growth Centre Precincts Development Control Plan 2016. For educational establishments, Parts 1, 2 and 4 of the DCP apply. Furthermore, the site is identified as being located within the Marsden Park Precinct and is therefore subject to additional controls under Schedule 6 of this DCP.

Pursuant to Clause 11 of the SRD SEPP, the application of local development control plans is excluded when assessing DAs for SSD projects. Notwithstanding, for the purposes of completeness, the proposal has been assessed against the key relevant controls of the Blacktown City Council Growth Centre Precinct DCP 2016 in the table below.

Table 9 – DCP Compliance Table

Provision	Proposal	Compliance
2. Precinct Planning Outcomes		
2.2 The indicative Layout Plan	The proposal is in accordance with the Indicative Layout Plan. The site had been identified and zoned for the purposes of an educational establishment and is therefore considered an appropriate location for Marsden Park New Primary School.	Yes
2.3.1 Flooding and water cycle management	The site is not identified as flood prone land under the DCP. This EIS is accompanied by a Stormwater Management Report at Appendix S which demonstrates the proposal will not be impacted by flooding, subject to the adoption of recommendations contained in the report.	Yes
2.3.3 Aboriginal and European Heritage	An AHIMS site search and the DCP has revealed a registered site (Site No. 45-5-2752) bordering the northern boundary of the subject site. This site contains 3 artefacts within a disturbed context. Accordingly, an Aboriginal Cultural Heritage Assessment Report (ACHAR) accompanies this EIS at Appendix P . The ACHAR has confirmed that test excavation has been undertaken on the site in 2013 which resulted in the application of an Aboriginal Heritage Impact Permit (AHIP). This permit is currently still active and as such no further investigation is necessary. In accordance with Office of Environment and Heritage Guideline and Part 6 of the National Parks and Wildlife Act 1974, the 28 day Aboriginal Stakeholder Consultation was undertaken to inform the preparation of the ACHAR (see Section 7.9 of this EIS).	Yes
2.3.4 Native vegetation and ecology	The site is devoid of vegetation except for a strip of grass in the northern portion. No trees are proposed to be removed. The EIS is accompanied by a Biodiversity Assessment contained at Appendix Z . Ecological have confirmed that site is biodiversity certified pursuant to the <i>Biodiversity Conservation Act 2016</i> . As such no further assessment of impacts to threatened species, populations or ecological communities is required under the BC Act.	Yes

Provision	Proposal	Compliance
	A Landscape Strategy accompanies the proposal at Appendix F . Native species of trees, shrubs, grasses, and groundcovers have been selected to be included in the plant schedule to ensure consistency with the endemic and local Cumberland Plain Woodland community.	
2.3.5 Bushfire hazard management	<p>A Bushfire Protection Assessment accompanies the EIS at Appendix CC. The site is not identified as bushfire prone land pursuant to Blacktown City Council mapping. However, the proposal is located within 50m of grassland to the north which is considered a bushfire hazard in its current state.</p> <p>As the development is for a new school it is a Special Fire Protection Purpose (SFPP) development. Accordingly, the development proposal was assessed in accord with <i>'Planning for Bush Fire Protection 2006'</i> (RFS 2006). Ecological have developed a performance-based solution using the Pre-Release version of Planning for Bush Fire Protection 2018 (PBP 2018) to determine the Asset Protection Zones (APZ).</p> <p>Ecological have recommended that the Special Fire Protection Purpose development be approved.</p>	Yes
2.3.6 Site contamination	<p>Based on their detailed site contamination investigations Douglas Partners consider that the site is suitable for its intended use.</p> <p>Relevant mitigation measures are provided at Section 10 of this EIS.</p>	Yes
4. Development in the residential zones		
4.4.3 Educational Establishments and Places of Worship		
<p><u>Controls</u></p> <p>Places of public worship and educational establishments are preferably to be located on land with frontage to a collector road. Corner sites are preferred.</p>	The site is located on a corner with multiple frontages including to Northbourne Drive and a future new road to the north, both of which are collector roads pursuant to the DCP. The main entrance will be oriented towards Northbourne Drive.	Yes
A traffic and transport report/statement is to accompany the Development Application.	The EIS is accompanied by a Transport Assessment contained at Appendix I , a Preliminary Construction Traffic Management Plan at Appendix M and a Green Travel Plan at Appendix E of the Transport Assessment at Appendix I .	Yes
A landscape plan and associated documentation is to be	A Landscaping strategy has submitted with the EIS at Appendix E .	Yes

Provision	Proposal	Compliance
submitted with the Development Application.		
<p>Car parking spaces shall be provided on site in accordance with the following rates –</p> <p>1 space per staff member plus 1 space per 100 students</p>	<p>Based on DCP requirements and the proposed school population, the proposal requires a total of 50 spaces for staff and an additional 10 spaces for students. This new car park will also be provided for the temporary school.</p> <p>The proposal provides for 48 spaces for staff within an at grade car park located within the south western portion of the site. The development therefore provides 12 spaces less car parking spaces than required by Council's control.</p> <p>As detailed in the Transport Impact Assessment at Appendix I this noncompliance is justifiable for the following reasons:</p> <ul style="list-style-type: none"> • Travel demand measures will be implemented at the new school in accordance with the Green Travel Plan (at Appendix E of the Transport Impact Assessment). A package of measures are proposed which are aimed at reducing car travel, particularly single occupant trips. • The provision of 48 car parking spaces is consistent with the Department of Education Guidelines. • It is considered that there are sufficient parking spaces to accommodate the expected travel demand associated with the new school. 	No
<p>For certain uses, the provision of overflow parking may be necessary particularly where such developments incorporate halls used for social gatherings. Overflow parking areas could be provided on open grassed areas and need not be formally sealed or line-marked. Proposed overflow parking areas are to be clearly shown on plans submitted with the Development Application.</p>	No overflow parking areas are proposed.	N/A
Development must be designed to minimise the possibility of noise disturbance to the	The EIS is accompanied by a Noise Impact Assessment at Appendix H which demonstrates the proposal will not cause adverse acoustic disturbance to neighbouring dwellings	Yes

Provision	Proposal	Compliance
<p>occupants of adjoining or neighbouring dwellings. Where it is likely that a development may cause an adverse noise impact on nearby residential areas, an acoustic report will be required to be submitted to council with the Development application.</p>	<p>subject to the adoption of mitigation measures outlined in Section 10 of this EIS.</p>	
<p>The general hours of operation for places of public worship and educational establishments are between 7am and 9pm.</p>	<p>General operation hours for the school will be Monday – Friday 9am - 3pm on school days.</p> <p>Out of school hours (OOSH) use of the school facility will operate on school days in the morning from 7am and after school until 7pm and during school holidays between 7am and 7pm.</p> <p>Use of the school by external bodies including community groups up to 10pm daily is proposed which does not comply with the DCP. It is not expected that the facilities will be used regularly until 10pm. However, this upper limit is proposed to ensure flexibility for future community use.</p>	<p>No. Notwithstanding this, pursuant to Clause 11 of the SRD SEPP, the application of local development control plans is excluded when assessing DAs for SSD projects.</p>
Schedule 6 – Marsden Park Precinct		
<p>3.1 Vision</p>	<p>The proposal is generally in accordance with the vision for in that it will provide an educational establishment that:</p> <ul style="list-style-type: none"> • Appropriately located at the corner of two collector roads which are connected to the surrounding road network providing access to nearby local and regional centres. • Is suitably designed to ensure residential amenity will be maintained to surrounding residential uses. • Has no impact to the curtilage of the Clydesdale Estate which is a state listed heritage item. 	<p>Yes</p>
<p>6.1 Development around Clydesdale House and other locally listed heritage items</p>	<p>The Heritage Impact Statement (refer Appendix O) states there is no potential for the proposed works to generate any detrimental heritage impacts on heritage listed Clydesdale House, including its setting. The proposed works are therefore supported from a heritage perspective.</p>	<p>Yes</p>

5.15. SECTION 7.11 CONTRIBUTIONS

Blacktown Council's Section 94 Contributions Plan No.21 – Marsden Park applies to the development. There are no specific exemptions within the Section 7.11 Plan (formally Section 94), meaning the school development would be levied to fund:

- Water Cycle Management Facilities
- Traffic & Transport Management Facilities
- Open Space and Recreation Facilities
- Community Facilities (land only)
- Reserve 867, Local Conservation Zone - Riverstone (apportioned).

The proposal includes open space and recreation facilities to meet the demands of the school. The school does not need to rely on open space or community facilities within the precinct. The school will have open space and facilities on site and should therefore not have to contribute towards delivery of works in the broader precinct. The proposal does not generate a demand for Council's infrastructure and facilities. The proposal includes facilities that may be able to be used by community, such as a hall and library.

The proposal provides important social and community infrastructure that would otherwise have to be provided by Council. The new school provides essential community services and employment opportunities, which results in economic and non-economic benefits to the local Council and its community. The benefits far outweigh any additional costs that it might cause for the Council. An exemption for a monetary contribution is therefore requested.

Section 4.33 of the EP&A Act sets out specific provisions relating to the determination of Crown DAs. It states:

(1) A consent authority (other than the Minister) must not:

(a) refuse its consent to a Crown development application, except with the approval of the Minister, or

(b) impose a condition on its consent to a Crown development application, except with the approval of the applicant or the Minister.

On this basis, the consent authority has no power to issue a refusal or issue an approval subject to conditions of consent to which SINSW does not agree. The limitation on the power to impose a condition of consent extends to the consent authority's ability to require contributions to be paid, including contributions pursuant to Section 7.11 and 7.12. Contributions occur by way of conditions of consent. Therefore, neither Council nor DPIE can impose conditions relating to contributions without the SINSW's consent.

The following planning policies support the best practice of exempting community infrastructure from paying contributions:

Planning Circular D6 – Crown Development Applications and Conditions or Consent

Exemption from contributions is supported by Planning Circular (**Circular D6**) relating to Crown Development Applications, issued by the then Department of Urban Affairs and Planning. Circular D6 sets out the circumstances in which it is appropriate for a consent authority to seek the approval of the applicant or the Minister to impose conditions of consent. Circular D6 notes that where a consent authority intends to levy contributions on Crown Development, they must be justified, and consideration should be given to the Crown's role in providing a community service, the cost of which is accountable to all taxpayers in the State.

The currency of Circular D6 is confirmed in the Draft Development Contributions Practice Note – July 2005, which states "the current limitation on imposition of levies on Crown Developments as outlined in Circulate D6...remain in force."

Draft Local Development Contributions Guidelines

The Guidelines outline the best practice approach to developer contributions on the public sector:

8.3 Public sector development

The current limitations on the imposition of development contributions on public sector developments as outlined in Circular D6 – Crown Development Applications and Conditions of Consent remain in force.

Public sector development generally falls into the following 2 categories:

- *Development that is carried out with an underlying philosophy of community service such as a courthouse, school, hospital or social housing; or*
- *Development that is carried out on a profit-making basis*

Council can, in its contribution plan, identify those types of developments that are exempt from contributions.

Council can, in its contribution plan, identify those types of developments that are exempt from contributions. In this regard it is considered best practice to exempt those developments provided by the Crown with an underlying philosophy of community service, such as a courthouse, school or community centre, should not be levied a contribution as the material public benefit that is derived from the development exceeds any demand that it creates on existing infrastructure.

Where development is carried out by the public sector on a profit-making capacity they should pay a level of contribution equal to that applicable to the private sector.

DPIE must acknowledge that to impose a contribution on this project, it would need to have the agreement of the Minister. Planning Circular D6 notes that consideration should be given to the Crown's role in providing a community service (not provided for by Council).

6. STRATEGIC PLANNING CONTEXT

In accordance with the SEARs, the following strategic Planning Policies have been considered in the assessment of the proposal:

- NSW State Priorities
- The Greater Sydney Regional Plan, A Metropolis of three cities
- Future Transport Strategy 2056
- State Infrastructure Strategy 2018 – 2038 Building the Momentum
- Sydney’s Cycling Future 2013
- Sydney’s Walking Future 2013
- Sydney’s Bus Future 2013
- Crime Prevention Through Environmental Design (CPTED) Principles
- Healthy Urban Development Checklist (NSW Health)
- Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)
- Central City District Plan
- Our Blacktown 2036
- Blacktown Growth Centres Development Control Plan.

The proposals consistency and compliance with the relevant strategic plans or policies is outlined in **Table 10**.

Table 10 – Strategic Plans and Policies Consistency

Strategic Plan or Policy	Comment
NSW State Priorities	<p>NSW State Priorities is the State Government’s plan to guide policy and decision making across the State. The proposed redevelopment at the site is consistent with key objectives contained within the plan, including:</p> <ul style="list-style-type: none"> • <i>Greening our city: Increase the tree canopy and green cover across Greater Sydney by planting one million trees by 2022</i> <p>A comprehensive landscaping strategy is provided as part of the proposal. Proposed landscaping includes planting of native species of trees, shrubs, grasses, and groundcovers have been selected to be included in the plant schedule to ensure consistency with the endemic and local Cumberland Plain Woodland community.</p> <ul style="list-style-type: none"> • <i>Bumping up education results for children: Increase the proportion of public school students in the top two NAPLAN bands (or equivalent) for literacy and numeracy by 15 per cent by 2023, including through statewide roll out of Bump it up.</i> <p>The proposal will contain high quality facilities, spaces and equipment for use by students and staff. This will provide students with learning difficulties with greater opportunities to learn and improve their numeracy and literacy skills.</p>

Strategic Plan or Policy	Comment
	Overall, it is considered that the proposal is consistent with the goals and objectives set out within the NSW State Priorities.
The Greater Sydney Regional Plan, A Metropolis of three cities	<p>The <i>Greater Sydney Regional Plan, A Metropolis of Three Cities</i> was released by the NSW Government in March 2018 and includes a range of goals, directions, objectives and actions that aim to support the strategic growth of Sydney over the long term and assist in delivering the vision where most residents will live within 30 minutes of their jobs, education and health facilities, and services. The following key directions contained in the Plan are relevant to the proposal:</p> <p><i>‘A city supported by infrastructure’</i></p> <p>Providing adequate infrastructure to support population growth is essential to creating strong communities. In accordance with the Plan, this SSDA will ensure that a new public school can be delivered to meet Sydney’s growing educational needs, particularly in rapidly growing locations such as Marsden Park. The proposal will take enrolment pressure off other schools in the locality currently exceeding student capacity and ensure a high-quality educational facility is provided for the future population of Blacktown LGA.</p> <p><i>‘A city for people’</i></p> <p>A growing Greater Sydney presents an opportunity to build social and cultural networks and to enhance individual and community health outcomes. The changing demographics of neighbourhoods across Greater Sydney will influence local demand for social infrastructure. The proposal will deliver a sustainable, well-designed school that promotes the use of public and active transport for staff. It will make a valued contribution to economic growth in Sydney and provide increased learning opportunities for students with employment opportunities for teachers. The proposal delivers a new school in an accessible and walkable location that will contribute to the social and cultural identity of the locality and improve the health outcomes of the children living in the area. The new school has been designed to embrace the surrounding natural and built environments and includes the provision a variety of sporting facilities to encourage students to participate in active outdoor activities.</p> <p>The proposal is also consistent with the underlying objectives that support the wider goals and directions contained within the Plan, including:</p> <ul style="list-style-type: none"> • <i>Objective 1: Infrastructure supports the three cities</i> <p>The proposal will deliver a vital piece of educational infrastructure in western Sydney that will take enrolment pressure off existing schools.</p> <ul style="list-style-type: none"> • <i>Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact</i> <p>Marsden Park is a rapidly growing residential suburb and the surrounding area is forecast to experience significant residential and employment growth. The new school will accommodate the growing student population and take enrolment pressure of existing schools in the area. The proposal will provide</p>

Strategic Plan or Policy	Comment
	<p>contemporary facilities to meet future educational standards and provide increased jobs and growth for Blacktown LGA.</p> <ul style="list-style-type: none"> • <i>Objective 3: Infrastructure adapts to meet future needs</i> <p>SINSW estimates that an extra 270,000 students will need to be accommodated in government and non-government schools in Greater Sydney by 2036. The proposal has been designed to be adaptable to meet the future needs of the community, with innovative contemporary design, flexible learning spaces and a more efficient use of land that will be essential in responding to growth and changing demands.</p> <ul style="list-style-type: none"> • <i>Objective 6: Services and infrastructure meet communities' changing needs</i> <p>Joint and shared use of facilities is encouraged to make school assets available to the community outside school hours and to give schools access to community facilities. At this point in time, there are no shared use or joint use arrangements in place. SINSW will continue to explore opportunities for shared and joint use of its facilities.</p> <ul style="list-style-type: none"> • <i>Objective 7 Communities are healthy, resilient and socially connected</i> <p>The proposal provides for a more socially connected community and will help to create and support an inclusive and vibrant neighbourhood. The site is in the heart of an emerging walkable neighbourhood and will increase opportunities for students and staff to walk and cycle to school resulting in a school that is well</p>
Future Transport Strategy 2056	<p>Future Transport 2056 is an update of NSW's Long-Term Transport Master Plan which seeks to promote the use of public transport as an effective travel option. The site benefits from being located:</p> <ul style="list-style-type: none"> • Within an area well serviced by buses with additional services planned to be created once the road network is finalised; and • Within a planned residential neighbourhood containing appropriate footpaths. <p>Future employees and students can cycle, walk or catch the bus or train to the School. This will reduce reliance on cars, decrease congestion and promote in sustainable outcomes. A Green Travel has been prepared by GHD to accompany the proposal and is included at Appendix E of the Transport Impact Assessment at Appendix I of this EIS. The Green Travel Plan proposes a range of strategies aimed at encouraging public and active transport use, which will further reduce reliance on private vehicle use.</p>
State Infrastructure Strategy 2018 – 2038 Building the Momentum	<p>The Strategy identifies that the NSW economy is expected to grow from \$539 million to \$1.4 trillion over the next 40 years. The projected economic growth will increase the demand for economic and social infrastructure.</p> <p>The proposal will deliver state of the art educational infrastructure to meet the educational needs of a growing population and a growing economy.</p>

Strategic Plan or Policy	Comment
Sydney's Cycling Future 2013	<p><i>Sydney's Cycling Future (2013)</i> seeks to make bicycle riding a feasible transport option within Sydney by encouraging in the use of Sydney's existing bicycle network.</p> <p>Blacktown City Council's 2016 Bike Plan identifies Richmond Road as an existing cycleway and does not identify any specific cycling infrastructure in Marsden Park.</p> <p>The Green Travel Plan prepared to accompany this EIS recommends that the new school actively seek local and State Government funding for cycling infrastructure in the area surrounding the new school. In addition, a total of 74 bicycle storage hoops are proposed as part of the new school which will encourage cycling to the new school.</p>
Sydney's Walking Future 2013	<p><i>Sydney's Walking Future (2013)</i> aims to promote walking as a means of effective transport within Sydney by encouraging investment in safe, permeable walking networks.</p> <p>Existing footpaths immediately adjacent to the site are limited. However, on-going development in the area promises to supplement the region's existing footpaths and pedestrian connectivity with new links. Students, teachers and parents will be able to access the site easily by walking which will promote healthy practise and decrease vehicular use.</p>
Sydney's Bus Future 2013	<p><i>Sydney's Bus Future (2013)</i> outlines the NSW Government's long-term plan to deliver fast and reliable bus services within Sydney to meet current and future customer needs.</p> <p>The site is situated approximately 650m walking distance from bus stops along Elara Boulevard which are serviced by the following bus routes:</p> <ul style="list-style-type: none"> • Route 747: Rouse Hill to Marsden Park via Riverstone. • Route 757: Mount Druitt to Riverstone via Rooty Hill Road North and Marsden Park <p>Future bus services are intended to be provided to Marsden Park as TfNSW continue to expand and evolve services in response to new development as part of the NWGA.</p> <p>Discussions with TfNSW undertaken by GHD in the preparation of the Transport Impact Assessment (Appendix I) have indicated that current bus routes servicing the MPP and more specifically the Elara Estate are only interim services. Future bus routes will be established pending the finalisation of the road network.</p>
Crime Prevention Through Environmental Design (CPTED) Principles	<p>The Crime Prevention Through Environmental Design (CPTED) guidelines were prepared by the NSW Police in conjunction with the DPE. CPTED provides a clear approach to crime prevention and focuses on the 'planning, design and structure of cities and neighbourhoods.</p> <p>The main aims of the policy are to:</p>

Strategic Plan or Policy	Comment
	<ul style="list-style-type: none"> • Limit opportunities for crime; • Manage space to create a safe environment through common ownership and encouraging the public to become active guardians; and • Increase the perceived risk involved in committing crime. • The guidelines provide four key principles to limit crime. <p>A CPTED assessment has been prepared by NRBS in their Urban Design Report contained at Appendix G of this EIS. This assesses the proposal design against performance criteria and design requirements.</p> <p>The recommendations included in the CPTED report have been or can be incorporated into the final school design. Accordingly, the proposal will provide a high level of security and be designed to deter criminal behaviour.</p>
Healthy Urban Development Checklist (NSW Health)	<p>Prepared by NSW Health, the Healthy Urban Development Checklist seeks to ensure built environments are created within New South Wales that are sustainable and promote healthy habits. The proposal satisfies a range of items contained to the checklist, including:</p> <ul style="list-style-type: none"> • <i>Encourage incidental physical activity;</i> • <i>Promote opportunities for walking, cycling and other forms of active transport;</i> • <i>Promote access to usable and quality public open spaces and recreational facilities;</i> • <i>Reduce car dependency and encourage active transport;</i> • <i>Improve location of jobs to housing;</i> • <i>Provide access to a range of facilities to attract and support a diverse population; and</i> • <i>Respond to existing (as well as projected) community needs and current gaps in facilities and/or services.</i> <p>The proposal aids in promoting a healthy and sustainable built environment through the construction of a new school that incorporates active recreational facilities to the benefit students.</p>
Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)	<p><i>Better Placed – An integrated design policy for the built environment of NSW 2017</i> advocates that everyone has a role in ensuring our cities and towns are better places. The policy is based on seven objectives that define the key considerations in the design of the built environment:</p> <ol style="list-style-type: none"> 1. <i>Better fit: contextual, local and of its place</i> 2. <i>Better performance: sustainable, adaptable and durable</i> 3. <i>Better for community: inclusive, connected and diverse</i> 4. <i>Better for people: safe, comfortable and liveable</i>

Strategic Plan or Policy	Comment
Central City District Plan	<p data-bbox="488 219 1153 253">5. <i>Better working: functional, efficient and fit for purpose</i></p> <p data-bbox="488 277 986 311">6. <i>Better value: creating and adding value</i></p> <p data-bbox="488 336 1145 369">7. <i>Better look and feel: engaging, inviting and attractive</i></p> <p data-bbox="488 394 1404 465">The Urban Design Report prepared by NRBS (Appendix G) discuss how the proposal has adopted these seven objectives into the design process.</p> <p data-bbox="488 495 1442 602">The Central City District Plan includes a range of priorities and actions to appropriately support the strategic growth of Sydney's Central District. The Plan identifies the following:</p> <ul data-bbox="520 627 1431 1003" style="list-style-type: none"> <li data-bbox="520 627 1431 734">• The NSW Department of Education estimates an extra 89,360 students will need to be accommodated in both government and non-government schools in the Central City District by 2036; <li data-bbox="520 759 1431 904">• Blacktown and Parramatta local government areas will each take up 32 per cent of the District's increase in school-aged children, followed by The Hills (23 per cent) and Cumberland (14 per cent) local government areas; and <li data-bbox="520 929 1431 1003">• Blacktown local government area will therefore have to accommodate approximately 28,595 additional school-aged children by 2036. <p data-bbox="488 1028 1442 1357">These figures demonstrate there is a demand for school places which has necessitated planning for new and more innovative use of existing school sites. If no additional classrooms are provided until 2036 there will be significant shortfalls. In response, the District Plan notes that SINSW is funding the construction of new government schools and upgrades to existing government schools to provide additional classrooms to the Western District to address issues of supply. Accordingly, this SSDA is consistent with the District Plan as it supports the SINSW's substantial investment in the development of Marsden Park New Primary School.</p>
Our Blacktown 2036	<p data-bbox="488 1391 1442 1536"><i>Our Blacktown 2036 – Community Strategic Plan</i> is a 20-year plan developed by Council and outlines 6 strategic directions which council will use to ensure that they are meeting the long term aspirations of the community. The proposal is consistent with and helps contribute to the achievement of these goals in that:</p> <ul data-bbox="520 1561 1442 2022" style="list-style-type: none"> <li data-bbox="520 1561 1442 1632">• A vibrant and inclusive community: it will provide a state of the art education facility to the benefit of the community. <li data-bbox="520 1657 1442 1765">• A Clean, Sustainable and healthy environment: it incorporates several ESD initiatives outlined in Section 8.6 of this EIS and in the ESD report attached at Appendix N. <li data-bbox="520 1789 1442 1935">• A smart and prosperous economy: it will provide significant job opportunities. These include temporary job opportunities during demolition and construction, and ongoing teaching and administration jobs at the project's completion. <li data-bbox="520 1960 1442 2022">• A growing city supported by accessible infrastructure: it will provide a modern teaching facility that is capable of compliance with relevant

Strategic Plan or Policy	Comment
	<p>BCA and DDA standards and provisions see Appendix V and Appendix W respectively.</p> <ul style="list-style-type: none"> • A sporting and active city: it includes multi-purpose sporting facilities and outdoor play spaces. At this point in time, there are no shared use or joint use arrangements in place, however, SINSW will continue to explore opportunities for shared and joint use of its facilities.

7. ENGAGEMENT

7.1. ENGAGEMENT APPROACH

A Consultation Outcomes Report has been prepared by Ontoit and provided at **Appendix BB**. The report has been prepared to document engagement activities undertaken to date. Key stakeholders relevant to the project are:

- School community;
- Local community;
- Service providers;
- Government Architect NSW (GANSW);
- Roads and Maritime Services (RMS);
- Transport for NSW (TfNSW);
- Blacktown City Council; and
- Aboriginal stakeholders.

The following sections provide a summary of the consultation undertaken to date.

7.2. SCHOOL ENGAGEMENT ACTIVITIES

SINSW established a Project Reference Group (PRG) which includes the director of public schools (PS) for the North Sydney Network, Representative from Rouse Hill PS, the Department of Education AMU Manager and Program Manager from School Infrastructure NSW and representatives from the Design Team. It should be noted that as this is a new School there are no current teacher or P&C representatives to be consulted. Meetings were held regularly to discuss key issues in the design of the new school.

7.3. COMMUNITY ENGAGEMENT ACTIVITIES

The Department of Education engages with the local community throughout the planning, design and construction phases to obtain their feedback. Engagement activities undertaken to inform the preparation of this EIS included letter box drops, newspaper advertisements and community engagement sessions at Rouse Hill Town Centre, Riverstone Library and Riverstone Village Shops. In addition to these engagement activities, a project website has been developed along with broadcast emails to provide updates on the project and advertise upcoming information session.

Letterbox Drop

Letterbox drops were conducted to advertise upcoming engagement sessions. Letters were distributed to approximately 2,500 residential properties in the vicinity of the new school and provided a brief overview of the project.

Newspaper Advertisements

A total of nine (9) newspaper advertisements were placed in the Rouse Hill Times to notify the community of the proposed development and upcoming information sessions.

Information Sessions

A total of six (6) community information sessions have been held at Rouse Hill Town Centre, Riverstone Library and Riverstone Village Shops throughout the planning phase of the project. These sessions enabled the community to be updated on the project and provide feedback on the proposed development. Monthly sessions will be held on site and at Rouse Hill Town Centre, Riverstone Library and Riverstone Village Shops as the project progresses. Further detail regarding the outcomes of these information sessions can be found in the Consultation Outcomes Report at **Appendix BB**.

7.4. SERVICE PROVIDERS

Electrical and Communications Infrastructure

Lucid Consulting Australia consulted Endeavour Energy regarding the existing capacity, network augmentations and easements of electrical and communications infrastructure. Lucid Consulting submitted a Connection of Load application to Endeavour Energy on 2 July 2019, and a supply offer was received on 10 July 2019 confirming that the required electrical capacity can be made available for the proposed new school.

Hydraulic Infrastructure

Lucid Consulting Australia consulted Local Water Authorities for the provision of Potable Water Service, Sewer Drainage Service, Natural Gas Service and Fire Protection Water Service. A Water Services Coordinator has been engaged to liaise with Sydney Water Corporation to confirm the availability and strategy of the new proposed services and their connection to the site.

7.5. GOVERNMENT ARCHITECT NSW

The project team have consulted with the Government Architect's Office and has undergone a pre-briefing meeting. The outcomes and the design response provided by NRBS (see **Appendix G**) is outlined below:

Table 11 – Response to GANSW Comments

GANSW Comment	Response
<p><i>The scheme is a near identical copy of North Kellyville Public School. It therefore fails to provide a contextual response derived from its location and social setting. The design is not place-based and does not contribute to a unique future character for the area.</i></p>	<p>The current site is part of a Stockland Development of land known as Elara Estate. The area has been cleared of all vegetation. The immediate and surrounding area is similar with some residential houses under construction as are some local roads. A new residential social setting is yet to start to evolve. The context and social setting is identical to that at North Kellyville when that school was successfully constructed and therefore using it as a successful precedent is appropriate. The assumption that it therefore fails to provide a contextual response is in our view incorrect. The unique character of the area is not yet determined on which to draw reference. The proposed design responds to the future context in the following ways:</p> <ul style="list-style-type: none"> • The school is a courtyard school. This concept is designed to be inward looking in order to form a heart. The donut concept is chosen for its sense of inclusion. This is important in a community that is yet to develop. It speaks to the idea that all students are embraced and made feel that they belong. (Better for Community – Objective 3) (Better working – Objective 5) • The courtyard building is positioned on the site to south east corner of the site. This enables the building to take advantage of the small descending change in contours allowing the hall with higher ceiling height requirements to sit lower to the west and allow the height of the overall building to be minimised. (Better working – Objective 5) (Better look and feel – Objective 7) • External shaded courtyard spaces provide a juxtaposition to the sun drenched larger north facing external landscaped play and learning spaces making the most of all

GANSW Comment	Response
	<p>environmental conditions and allowing choice for the students in varying weather conditions. (Better Performance – Objective 2)</p> <ul style="list-style-type: none"> • The building is orientated with the longer lengths facing north and south making the most of the natural light and reducing summer heat gain. (Better Performance – Objective 2) • The facades have been articulated using stepping parapets and various cladding types to reduce the scale and reflect the functional planning, deep reveals and sun shading elements orientated differently on each façade have been introduced to respond to the unique orientation and associated environmental factors. (Better for People – Objective 4) • The building has been located away from the busy proposed northern road for safety reasons. Adjacent to Northbourne Ave where drop off and pickup can occur with the least amount of impact on the residential lots. The staff carpark and accessible parking is located away from the drop off so to minimise traffic congestion on the surrounding community. (Better for People – Objective 4) • The school entry has been purposely positioned adjacent the proposed park to the south. The perimeter fence of the school has been removed at the entry to the school to engage with the park where it is envisaged many parents will be able to enjoy while waiting to drop off or collect their children before and after school. (Better for People – Objective 4) (Better working – Objective 5) • The colours of the cladding along with the vegetation have been selected to reflect the native landscape of the area before it was cleared. Light and dark greys reflect the bark of the native gum trees. Various tones of olive and light greens reflect the native grasses and leaves and the splashes of yellow reflect the wattle once prominent in the area. (Better look and feel – Objective 7) For all these reasons the design is a contextual response to its location. <p>It contributes to forming the emerging social setting of a new community and contributes greatly to a thoughtful future character for both the students and the surrounding area. (Better Fit – Objective 1).</p>
<p><i>The scheme does not incorporate Aboriginal cultural heritage.</i></p>	<p>Aboriginal Cultural Heritage can be included in the project in future stages during developed design and documentation. Options will include the introduction of a sandstone yarning circle along with the bush tucker planting and, an aboriginal mural to the canteen wall or other lower level walls maybe incorporated. An acknowledgement</p>

GANSW Comment	Response
<p><i>The scheme does not demonstrate an integrated landscape approach.</i></p>	<p>to country inscribed on the entry glass to the foyer could also be introduced. These options will be explored in conjunction with advice of local aboriginal community leaders.</p> <p>The landscape design of New Marsden Park Public School integrates strongly with the design and arrangement of the proposed built form and site context itself. At each building elevation the landscape levels have been carefully designed to meet flush with internal floor levels, providing unobstructed physical and visual access between inside and out, while providing strong circulation links. Outdoor learning environments have been carefully positioned adjacent each major building opening with aim to encourage external class breakout and outdoor teaching environments adjacent internal classroom areas. Each classroom breakout area has been designed to include integrated seating with either a range of raised seating planters or tiered amphitheatre steps. Thought has been given to provide lush shade vegetation to provide greenery and shade to each unique class breakout area. (Better Fit – Objective 1) (Better for Community – Objective 3) (Better for People – Objective 4) (Better working – Objective 5).</p> <p>Moving outwards from each building elevation and classroom breakout area, the landscape opens up to provide a range of diverse and flexible outdoor play environments that are well connected from each area and from the building itself. These outdoor play environments include both informal and formal play environments including fixed play equipment, nature adventure play, vegetable gardens, sports courts and playing fields. In order to ensure these environments are comfortable and pleasing to be within, the design incorporates a range of tree planting to provide shade and greenery. (Better for People – Objective 4) (Better working – Objective 5).</p> <p>The proposed structured planting palette including native groundcovers, grasses, shrubs and tree planting aims to screens and soften the proposed built form while integrating the site with surrounding proposed future vegetation. (Better Fit – Objective 1) (Better Performance – Objective 2) (Better look and feel – Objective 7).</p> <p>Access has been concentrated to 3 main student access points, each centred with proposed pedestrian crossings to promote clear and safe foot traffic. Gates include one to the North on the proposed major road, one in the South East corner and one in the South on Enmore Street. These 3 points of access factor in surrounding existing and proposed residential areas and the flow of anticipated local foot traffic. (Better for People – Objective 4).</p>
<p><i>The scheme does not demonstrate sustainable outcomes and an adequate level of internal amenity,</i></p>	<p>All daylighting and ventilation requirements will be met with the proposed design. It must be remembered that the use of technology in school is increasing and therefore the need to have a</p>

GANSW Comment	Response
<p><i>including daylighting, natural ventilation, outlook, visual and acoustic privacy.</i></p>	<p>lower level of glare from direct sunlight is required. Diffused natural light is required however large amounts of direct sun can be problematic to the function of teaching and learning. The design has been developed to achieve these requirements. All teaching spaces have an appropriate level of outlook whether it be outward to the community or over the playing field and landscape areas or to the internal courtyards. The visual and acoustic privacy has been thoughtfully considered in the design and placement of the school. The courtyard building provides both visual and acoustic privacy for the students and community while they use the external courtyard spaces. The playing field and the northern playground and courts are located closer to the noisier main arterial road to the north and away from the residential houses to the south (Better Performance – Objective 2).</p>
<p><i>The interface with the public domain is dominated by fencing and small gates, and does not present a welcoming and engaging frontage.</i></p>	<p>The perimeter fencing of every school is a departmental requirement for child safety which must be complied with and respected. That said we have endeavoured to reduce its impact by making the building the barrier at the entry and enabling a more welcoming and engaging frontage and association with the proposed park. (Better look and feel – Objective 7) (Better for People – Objective 4).</p>
<p><i>There is no indication of how the school will share facilities with the community and engage with the local park adjacent.</i></p>	<p>The onsite carpark has been located with access from the quieter residential street to allow parking immediacy for the community adjacent to both the hall and playing field which are both the most likely facilities that could be shared with the community outside school core hours. The school entry has been purposely positioned adjacent the proposed park to the south. The perimeter fence of the school has been removed at the entry to the school to engage with the park where it is envisaged many parents will be able to enjoy while waiting to drop off or collect their children before and after school. It is also worth noting that the school will decide how they share their facilities once it is operating, however the design has allowed ease of access to these facilities for the community. (Better for Community – Objective 3) (Better for People – Objective 4) (Better working – Objective 5) (Better Value – Objective 6).</p>

The design of this project has responded to the 7 principles of design as set out in the Education SEPP. These principles have been addressed in the Urban Design Report and further expanded on in the comments above. The Report individually addresses how the design has taken into consideration:

- Principle 1: Context, built form and landscape
- Principle 2: Sustainable, efficient, and durable
- Principle 3: Accessible and inclusive
- Principle 4: Health and safety
- Principle 5: Amenity

- Principle 6: Whole of life, flexible, and adaptive
- Principle 7: Aesthetics

The design has also referenced the “Better Placed” document - “a strategic design policy for the built environment of New South Wales”. The clauses which have been applied have been referenced through this response to the GAO comments and indirectly in the body of the Urban Design Report.

7.6. ROADS AND MARITIME SERVICES

GHD in the preparation of their Transport Impact Assessment (see **Appendix I**) contacted Roads and Maritime Services NSW on multiple occasions to obtain additional data to inform their study. These attempts are documented at Appendix A of their report.

7.7. TRANSPORT FOR NSW

GHD consulted with TfNSW regarding the provision for future bus services. TfNSW provided the following comment in regard to the provision of bus services as the Marsden Park Precinct and the Marsden Park North Precinct are developed:

Bus services at Marsden Park will continue to expand and evolve in response to new development as part of the North West Growth Area. Marsden Park and Elara Estate are on the very rural-urban fringe and current bus routes are only interim services pending the construction of new roads that will enable future permanent bus network to be delivered in coming years.

Bus links to Mt Druitt, Penrith, Blacktown, Schofields, Riverstone, Tallawong, Rouse Hill and the future Marsden Park Town Centre are being taken into account in planning future bus services in the area.

Comments from TfNSW have informed the Transport Study prepared by GHD at **Appendix I**.

7.8. BLACKTOWN CITY COUNCIL

Consultation with Blacktown City Council (BCC) has been undertaken and will be ongoing throughout both the assessment and operation phases of the development. The project team met with representatives from Council on 18 July 2019 to provide an overview of the project and provide Council the opportunity to raise any issues that the project would be required to address. The meeting was attended by members of the project team and Council representatives from the planning team, civil engineering team, environmental health, and traffic management.

The main areas of feedback provided by Council and how they have been addressed in this EIS are detailed below:

Table 12 – Response to Council Comments

Council Comment	Response
The DA must address the contextual aspects influencing urban form.	Addressed in Urban Design Report at Appendix G .
The proponent must demonstrate that there is the required adequate parking on site and that there will be no traffic related issues relating from the proposed development.	Traffic and Parking is addressed in Section 8.5 and Appendix I . It is considered that 48 car parking spaces is appropriate for the new school site.
A plan of management should be prepared.	A plan of management for the new school has not been prepared at this stage. SINSW will prepare a plan of management in consultation with staff and the school community prior to school operation.
Landscape plan to be prepared.	Refer Appendix F .

Council Comment	Response
Traffic impact of the new school and in particular queue lengths resulting in the peak student drop up and pick up activities.	Given that the trips generated by the proposal constitute such a minor portion of trips within the locality, the proposal will have a negligible impact on the transport network from a traffic perspective. Traffic and Parking is addressed in Section 8.5 and Appendix I .
The requirement for an indented bus bay at Northbourne Drive.	An indented bus bay is proposed along the sites northern frontage to the future arterial road to the north. Traffic and Parking is addressed in Section 8.5 and Appendix I .
Noise and vibration to be addressed in the EIS.	Refer Section 8.10 and Appendix H .
OSD provision and Flood Management Plan.	OSD is to be provided in accordance with Council's specifications. A Flood Management Plan is contained at Appendix S .
The proposed location of the pedestrian crossing between the two roundabouts to the north is not favourable.	GHD have advised that the pedestrian crossing location is appropriate given site distances between It is SINSW's preference to have a pedestrian that lines up with the northern entry to the school. It is therefore considered that proposed pedestrian crossing location is appropriate.
After hours use of hall/sporting fields to be documented.	Refer Section 4.8 .

7.9. ABORIGINAL STAKEHOLDERS

In accordance with Office of Environment and Heritage Guideline and Part 6 of the National Parks and Wildlife Act 1974, the 28 day Aboriginal Stakeholder Consultation was undertaken to inform the preparation of the ACHAR. Appendix C of the ACHAR (at Appendix P) includes a consultation log table summarising all correspondence with Registered Aboriginal Parties with regards to the stages outlined in the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010). All registered stakeholders were given a copy of a proposed Aboriginal Cultural Heritage Assessment (ACHA) research methodology and given 28 days to respond to this methodology. No formal responses were received to the proposed methodology by any of the registered stakeholders.

All registered stakeholders were given a copy of the ACHAR and were given a minimum of 28 days to comment. The following registered stakeholders responded to the ACHAR:

- Badu;
- Walbunja;
- Merrigarn;
- Muragadi;
- Darug Custodian Aboriginal Corporation;
- Murra Bidgee Mullangari;

- Darug Land Observations; and
- Munyunga.

The responses received are included at Appendix C of the ACHAR (at Appendix P of this EIS).

All stakeholders were contacted via telephone on the 19th July 2019. The following verbal responses were received of which all parties were in support of the recommendations outlined in the Aboriginal Cultural Heritage Assessment.

- Didge Ngunawal Clan;
- Gunjeewong Cultural Heritage Aboriginal Corporation;
- Wailwan Aboriginal Group;
- Yurrandaali Cultural Services;
- Yulay Cultural Services;
- Darug Aboriginal Cultural Heritage Assessment; and
- Walbunja – Representative Hika Te Kowhal verbally agreed on behalf of the Murrin Nation in representation of the following groups; Dharug, Gundungurra, Tharawal, Eora, Elouera, Wandandian, Ngunawal, Walgalu, Ngarigo, Walbunja, Djiringanj, Thauaira and Bidawal.

8. ENVIRONMENTAL IMPACT ASSESSMENT

8.1. INTRODUCTION

This Section of the EIS provides a comprehensive environmental assessment undertaken with reference to the requirements specified for the project (**Appendix A**), relevant environmental planning instruments, and relevant provisions of the EP&A Act.

The specialist technical reports annexed to this EIS address the key issues identified in the SEARs. The following sections provide an environmental assessment of the proposal.

8.2. ASSESSMENT METHODOLOGY

The assessment of the impacts has been informed by the extensive and comprehensive inputs from various consultants in the proposal team covering a wide range of technical aspects. This process has included the following steps:

- Review of the preliminary scheme for the proposal against the relevant SEARs, legislation, policies, and guidelines to assess compliance.
- Iterative design development with recommendations from proposal team to ensure the final scheme for the Proposal can meet the requirements set out by the SEARs.
- Consultation with various agencies and authorities to ensure the Proposal can address their concerns and requirements.
- Merit assessment of the Proposal for each specific aspect of the proposal within its physical, social, economic or strategic context (as relevant), and against the applicable SEARs, legislation, policies and guidelines.
- An assessment of the cumulative impacts of the proposal.
- Preparation of a Risk Assessment Matrix to identify environmental impacts and consider any mitigation measures that can be implemented to manage those impacts is proposed.
- Conclusion of environmental impact for each aspect based on implementation of the mitigation measures.
- Finally, this EIS provides conclusions as to whether the proposal, as a whole, has limited environmental impacts beyond those already assessed.

8.3. BUILT FORM, URBAN DESIGN, AND DESIGN EXCELLENCE

8.3.1. Methodology

The height, bulk, and scale of each built form and public domain element of the proposal has been considered in detailed in the Urban Design Report at **Appendix G**.

8.3.2. Existing Environment

The site is currently vacant. It is located within the Marsden Park Precinct which is the subject of significant built form change as detailed in **Section 3.4** of this report.

8.3.3. Building Height and Scale

The maximum building height of the proposal is 11.9 metres above natural ground level at the western end. The building is stepped with the fall of the land to the west. The courtyard form is compact and consolidated on the site which allows for more opportunities for outdoor recreation and landscaping elsewhere on the site.

The building is sited at the eastern end which establishes a civic presence along Northbourne Drive. The pick up/drop off area is also located at the site's eastern frontage to further establish the new school's presence along Northbourne Drive. The proposal is distinctive and will be visible recognisable.

Figure 15 – Photomontage of the new school from the proposed future road to the north



Source: NRBS

The massing of the building is located at the south eastern corner of the site along Northbourne Drive Streetscape to minimise bulk and scale impacts to future neighbouring dwellings to the south west along Enmore Street. This is achieved by locating the bulk of the building Northbourne Drive which reflects the future desired character and existing built form along Northbourne Drive.

The expressed structure of the façade provides shading and depth to create visual interest and variation in the play of light and shade across the building (refer to **Figure 7**, **Figure 15** and **Figure 16**). The building is distinctive and will be visible in its surrounds. The activated facades are light weight and transparent and the building elements are well proportioned and interesting. An appropriate colour palate has been selected which is consistent with the textures and colours of the western Sydney Cumberland Plain locality in which the new school is situated within.

The bulk and scale of the development is appropriate in the emerging context of the Marsden Park Precinct.

8.3.4. Landscaping

The proposal will have minimal impact on the natural environment insofar as no significant trees are to be removed. A comprehensive Landscaping Strategy Report accompanies this EIS at **Appendix F** which proposes extensive planting as part of a landscaping scheme for the site. Proposed landscaping works are further detailed at **Section 4.10** of this EIS. In addition to appropriate plantings and pedestrian circulation principles, outdoor recreation spaces are proposed including multipurpose sporting facilities.

Marsden Park is currently devoid of green infrastructure. Native species of trees, shrubs, grasses, and groundcovers have been selected to be included in the plant schedule to ensure consistency with the endemic and local Cumberland Plain Woodland community.

Future students will benefit from tree coverage with outlook to tree canopies from classrooms, deciduous trees will announce change in season and provide interest through change in foliage colour as well as spring floral displays. Appropriate landscaping has been proposed in accordance with endemic species to the region. New plantings will provide part of a green network to areas of native planting in the locality, which can be utilised by native flora and fauna.

Site planning has allowed for adequate space to the north, south and eastern boundaries where landscape setbacks can accommodate appropriate planting for trees, shrubs, grasses and groundcovers. This planting

will enhance streetscape appearance and provide a visual softening of the building facades, lessening the visual impact of the building mass.

8.3.5. Design Quality

The main entries and functional elements of the new school including the Administration, Library and Hall are distinctive which accentuates their intended use (see **Figure 16**). Patterns of colour and materials are used to provide contrast to distinguish these function elements of the building. The structural frame and integral shading elements provide depth and visual interest. These elements also allow the incorporation and demonstration of the passive design elements in the visual expression of the building. The durable material choices incorporate standard product dimensions and connections and the structural grid allows easy reconfiguration.

Figure 16 – Photomontage of hall and breakout area at the north western end of the building



Source: NRBS

The continued implementation of design excellence through detailed design, construction and management of the building and landscaped elements will ensure design excellence is achieved.

8.4. ENVIRONMENTAL AMENITY

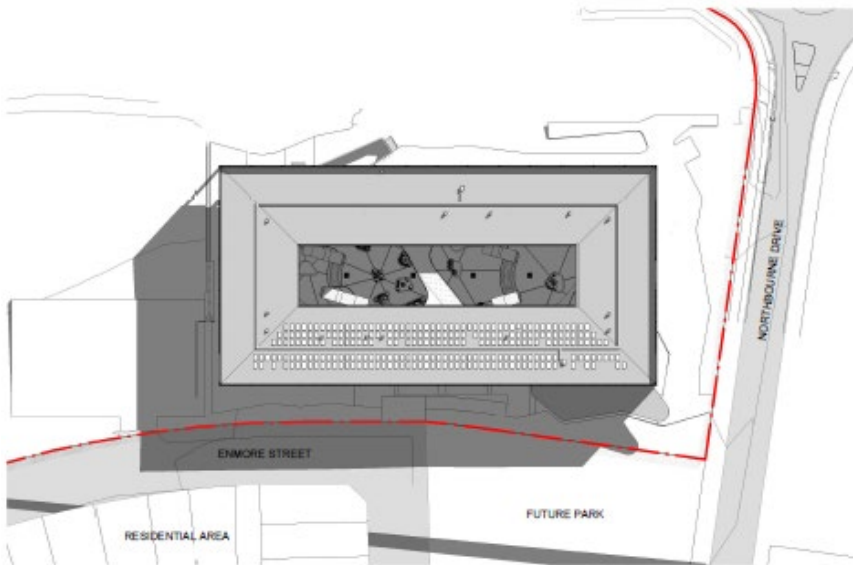
8.4.1. Overshadowing and Solar Access

NRBS have prepared shadow diagrams for the winter solstices from 9am to 3pm. The following provides an assessment of the proposals overshadowing impacts during winter:

June 20 - 9am

Shading impacts in the early morning period are restricted to the site and road pavement. Minor overshadowing occurs to the future park to the south. No residential development is overshadowed. The majority of the park receives full sun. Users of the park will have shading if they do not want to be exposed to the sun.

Figure 17 – June 20 – 9am overshadowing analysis



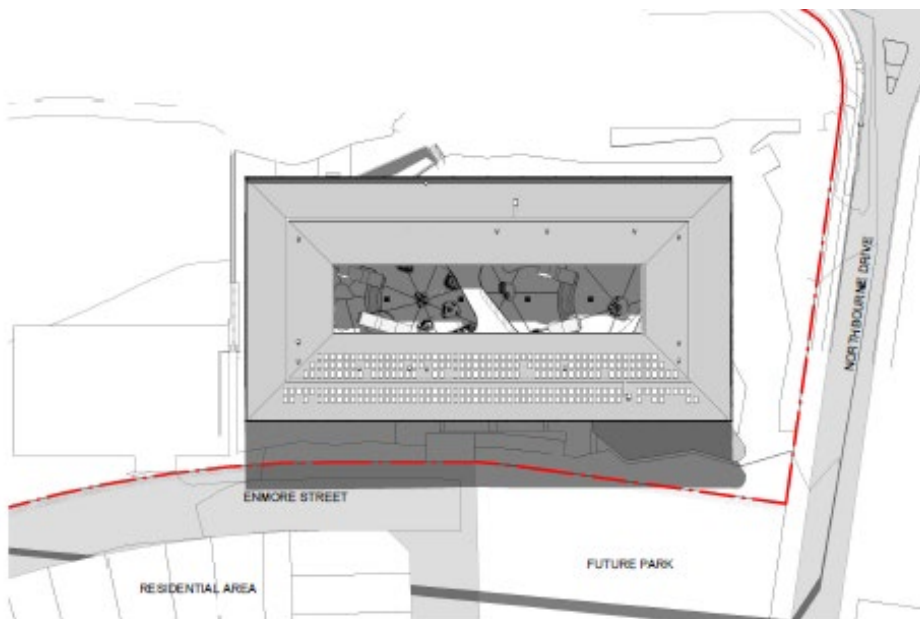
① **JUNE 20, 9.00AM**
1 : 1000

Source: NRBS

June 20 – Midday

Shadowing during midday is restricted to the road pavement and a small portion of the proposed future park. No residential development is overshadowed. The majority of the park receives full sun.

Figure 18 – June 20 - Midday overshadowing analysis



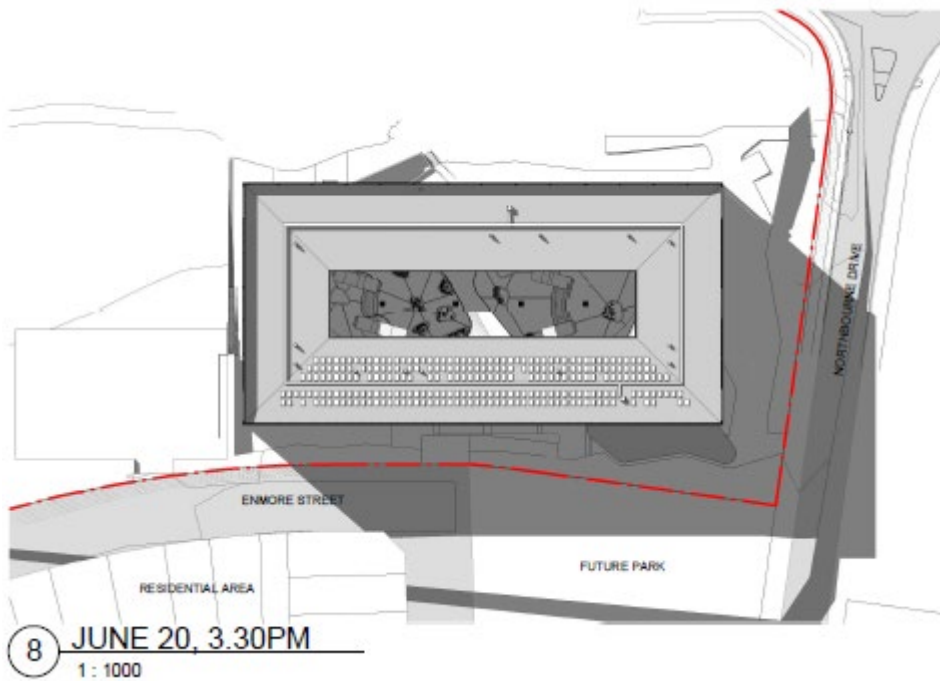
④ **JUNE 20, 12.00PM**
1 : 1000

Source: NRBS

June 20 – 3:30pm

There will be some shadowing to the future park. Other overshadowing is restricted to the road pavement of Enmore Street and Northbourne Drive. This overshadowing is considered acceptable considering that the park will have almost unobstructed solar access between 9am – 2pm, except for minor overshadowing in the northern portion of the new local park at 3:30pm.

Figure 19 – June 20 – 3:30pm overshadowing analysis



Source: NRBS

Overall, the shadow impact is appropriate. No residential properties are impacted. The majority of the park receives unobstructed sunlight.

8.4.2. Visual Privacy

There are significant separation distances between the proposed building and surrounding development to prevent any significant loss of privacy (see **Section 4.4.2** of this EIS).

The nearest residential building (yet to be developed) are adjacent to the south of the site separated by Enmore Street. There are also setbacks proposed to the southern boundary of the new school which will result in the provision of adequate separation for maintenance of privacy.

There not expected to be any unreasonable impacts associated with the development from a privacy perspective.

8.4.3. View Impacts

There are no views across the site. Therefore, there is no view loss from the proposal.

8.4.4. External lighting

Lucid Consulting have prepared a lighting strategy which recommends light technical parameters such as lighting levels, uniformities and colours. Standard mitigation measures are recommended including for the final lighting proposed to be designed to meet guidelines standards and regulations including:

- AS 4282:2019 Control of the obtrusive effects of outdoor lighting.
- AS 1158:2005 Lighting for roads and public areas.
- State Environmental Planning Policies.
- NSW Educational Facilities Standards and Guidelines.

A lighting strategy is also provided which includes a lighting control strategy to minimise light pollution to neighbouring residences and the night sky, a lighting installation strategy, and a luminaire selection strategy.

Given the proposed operation hours of the new school will be restricted to typical daylight hours, and the separation of the school from surrounding residential uses, it is considered that the proposed lighting strategy will mitigate any light spill impacts associated with the new school.

8.4.5. Temporary School

Environmental amenity impacts of the temporary school are expected to be minimal in that:

- It is proposed to be located on the sports oval in the western portion of the site away from any residential boundaries; and
- A single storey scale is presented meaning overshadowing will be restricted to the site.

8.5. TRANSPORT AND ACCESSIBILITY

A transport assessment of the development has been undertaken by GHD (**Appendix I**). Key findings of this assessment are presented below. The report identifies that the overall traffic impacts of the proposal are considered acceptable.

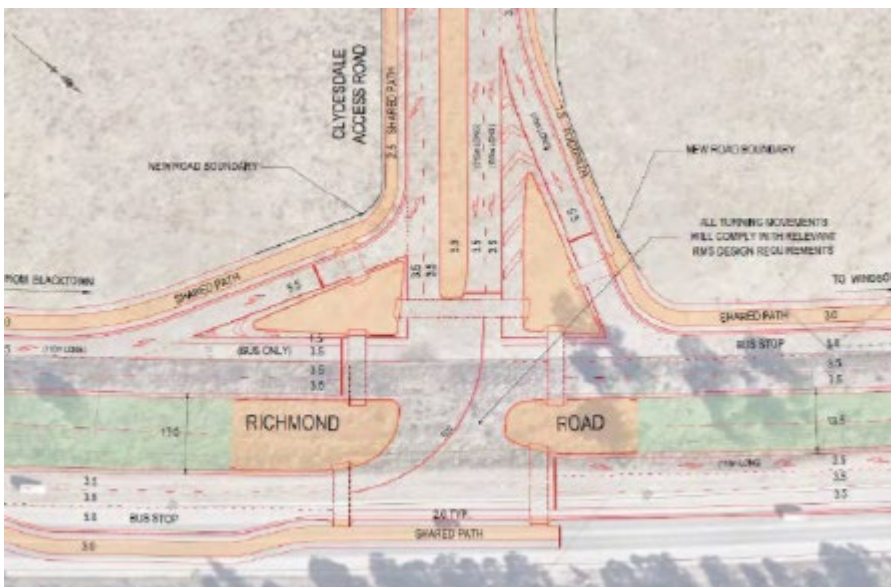
8.5.1. Methodology

The Transport Impact Assessment has been undertaken to determine the trip generation characteristics of the proposed new school and the performance of intersections following the development of the school. Previous relevant transport studies related to the proposal have been utilised to inform trip generation characteristics of the proposal. The following relevant transport studies are relied upon:

- *Assessment of Intersection Performance at Richmond Road - Access 1 Intersection Marsden Park Residential Precinct* report completed by Transport Planning Partnership in 2017. This study was undertaken to support the proposed Clydesdale Development, located within the Marsden Park Precinct and to the north of the proposed new school site. Based on discussions with Council (see Appendix A of the Transport Impact Assessment at **Appendix I**) it is now understood that it is proposed to provide access to the Clydesdale Development via a major new signalised intersection on Richmond Road to the north of Access Road 1 (refer to **Figure 20**). GHD has requested data about this intersection/access road from Council and Roads and Maritime, however it was not made available at the time of preparing their study.
- The *Marsden Park Precinct Traffic and Transport Study* prepared by AECOM, in 2013. This report was prepared to assess the transport and access requirements of an indicative layout plan for the Marsden Park Precinct. This report covers a range of transport modes and considers improvements to public transport, walking and cycling networks to ensure sustainable transport opportunities are provided for the future communities.

These studies have been used as the basis for traffic generation and travel demand management assessment of the proposal. This is considered appropriate given the new school is to be located in a new urban release precinct which currently does not have any significant traffic movement.

Figure 20 – Proposed Access Road 1 / Richmond Road Intersection Arrangement (Signal Controlled)



Source: Transport Planning Partnership (2017)

8.5.2. Car Parking

The Blacktown Growth Centre Precincts DCP stipulates specific vehicle parking requirements for a primary school, requiring the following parking provision:

- 1 space per 100 students
- 1 space per staff member

Based on the above rate, and given the proposed capacity of the school, a total of 60 car spaces are required. The rate is to provide each staff member with their own parking space, with an additional amount based on the number of students.

The proposal provides 48 car parking spaces including one accessible space. It is considered that 48 car parking spaces is appropriate for the new school site for the following reasons:

- The provision of 48 spaces is consistent with the Department of Education Guidelines, provides car parking for the majority of the expected teachers / staff and is considered to be sufficient to accommodate typical parking demand associated with Marsden Park New Primary School;
- The control includes the requirement to provide parking for students which is considered unnecessary for a primary school where students will not be driving to school; and
- Travel demand measures will be implemented at the new school in accordance with the Green Travel Plan (at Appendix E of the Transport Impact Assessment at **Appendix I**). A package of measures are proposed which are aimed at reducing car travel, particularly single occupant trips.

8.5.3. Road Network Assessment

The proposal is expected to have a population of 1,000 students, corresponding to 306 vehicle trips in AM and PM peak hour periods, as follows:

- AM peak – 180 inbound and 123 outbound
- PM peak – 123 inbound and 180 outbound

GHD have provided updated trip generation data further to the study undertaken by Transport Traffic Partnership in 2017 (refer **Figure 21**).

Figure 21 – Updated Trip Generation Data

Development	No Dwellings	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
Clydesdale	2,230	192	768	960	783	196	979
School (originally included in study, based on 500 students)	-	90	63	153	63	90	153
Stockland Elara	1,843	350	1,401	1751	1,460	365	1,825
Winten's Newpark	350	67	266	333	277	69	346
Sub-Total	4,423	699	2,498	3197	2,583	720	3,303
Additional School Trips		90	63	153	63	90	153
Total	4,423	789	2,561	3,350	2,646	810	3,456
Percentage of Additional School				4.6%			4.4%

Source: GHD

Analysis indicates that the additional trips associated with 1,000 students will constitute an additional 4.4 percent – 4.6 percent, compared to the land uses accounted for in the Richmond Road Report.

Given that the trips generated by the proposal constitute such a minor portion of trips at the two intersections, any upgrades will be required regardless of whether the school is in operation. A significant portion of trips generated by the school at the intersections on Richmond Road consist of “pass-by” trips, which will already be part of existing traffic flows on the surrounding road network.

Accordingly, the proposal will have a negligible impact on the transport network from a traffic perspective.

8.5.4. Green Travel plan

A Green Travel Plan (GTP) has been prepared by GHD and is provided at Appendix D of the Transport Impact Statement at **Appendix I** of this EIS. The GTP proposes a range of strategies aimed at encouraging public and active transport use. The following GTP initiatives are proposed:

- Communications: A Sustainable Travel Map be developed for display on site and for use in digital communications (including the website).
- Communications: Undertake a staff information session to outline the travel options at the new facility generally.
- Walking and cycling: The school could actively seek local and State Government support for improved walking and cycling safe routes to school.
- Walking and cycling (behaviour change): The school can take part in “10,000 steps per day” challenge (for staff), or cycle to school day (for staff and students).
- Bus and train: some new students will be eligible for school opal cards via the School Student Transport Scheme. To maximise the use of bus and train, noticeboards and school newsletters could include relevant information to increase awareness of the alternative transport options available.
- Parking: The school could actively seek local government support for increased management of on street parking surrounding the school, including the monitoring of on-street parking by parking inspectors / rangers i.e. if vehicles park in the pick-up / drop-off area during peak periods of school activity.
- Car-pooling: The school could promote staff carpooling to school through:
 - The provision of priority designated carpool parking within the staff car park.
 - An online carpooling forum could be developed to promote workplace group travel. This forum would provide a platform for people travelling on the same route to form groups. Information could be posted on the staff website, noticeboards or in newsletters.

Ongoing review of the GTP is proposed to introduce additional measures as required.

8.5.5. Temporary School

A transport impact assessment of the temporary school is provided as follows:

- **Road Network:** As the temporary school will provide for half the number of students as the permanent school, it is considered that the road network impacts of
- **Car Parking:** the permanent car park will be constructed for the temporary school providing 48 spaces for 25 staff which exceeds the requirements.
- **Drop off and Pick up:** Temporary access and drop off and pick up arrangements are detailed in **Section 4.3** of this EIS. It is considered that Beale Street is the most appropriate location for student pick up and drop off as it is located closest to the temporary school and away from construction vehicular access for the permanent school along Northbourne Drive.

8.5.6. Construction Traffic Management

A preliminary Construction Traffic Management Plan has been prepared by GHD to accompany this EIS at **Appendix M**. Based on the proposed construction management plan GHD anticipate that site works will generate up to 20 truck movements inbound and outbound per day. This is considered low and is within typical fluctuations of daily traffic movements and therefore will not adversely alter the existing operation of the road network.

Due to the location of the new school site and the moderate public transport options currently serving the site, it is anticipated that workers will arrive to the site via private vehicles. For this reason a designated area for contractor vehicle parking will be provided within the construction site boundaries to limit on-street parking.

Contractors will be encouraged to assist in the transportation of workers using carpooling arrangements or where possible. Appropriate pedestrian and vehicle management measures will be implemented to ensure safety during the construction phase of the development.

8.5.7. Mitigation Measures

It is recommended that measures provided in the GTP (as detailed in **Section 8.5.4**) are implemented. Construction Traffic Management mitigation measures are detailed at **Section 10** of this EIS.

8.6. ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)

8.6.1. Methodology

An Ecologically Sustainable Development (ESD) Report has been prepared to accompany the proposal (at **Appendix N**). The report has been prepared in response to the SEARs requirements for ESD and includes an assessment against relevant statutory regulations, Greenstar benchmarking, and establishment of sustainability targets in relation to a number of construction and operational elements of the proposed new school. ESD assessment has not been undertaken for the temporary school as it is not intended to be located at the site for an extended period of time.

8.6.2. Principles of Ecologically Sustainable Development

Clause 7(1)(f) of Part 3 of Schedule 2 of the EP&A Regulation requires an EIS to include the reasons justifying the carrying out of the development in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development. These principles are discussed in Section 5 of the ESD report at **Appendix N** and summarised below.

Table 13 – Principles of ESD Compliance

Principles of ESD	Comment
<p><i>(a) the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:</i></p> <p><i>(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and</i></p> <p><i>(ii) an assessment of the risk-weighted consequences of various options,</i></p>	<p>The precautionary principle has been applied in the environmental impact assessment process documented in this EIS. Environmental investigations have been undertaken to ensure that potential impacts are understood with a high degree of certainty. There are no perceived threats of serious or irreversible environmental damage as a result of the development.</p> <p>The development incorporates measures to reduce environmental damage with best practice initiatives such as creating green spaces, and enhanced biodiversity for landscaping.</p> <p>Adequate investigations have been undertaken to enable the consequences of the development to be understood and measures have been incorporated into the design to manage and mitigate impacts.</p>
<p><i>(b) inter-generational equity, namely, that the present generation should ensure that the health, diversity and productivity of the</i></p>	<p>The health, diversity and productivity of the local environment would not be significantly impacted as a result of the development.</p>

Principles of ESD	Comment
<p><i>environment are maintained or enhanced for the benefit of future generations,</i></p>	<p>The development will promote community safety by providing a modern new school development demonstrating a high degree of conformity with CPTED principles.</p> <p>The safety of the community will be, therefore, enhanced for future generations as a result of the proposal rather than compromised.</p>
<p><i>(c) conservation of biological diversity and ecological integrity, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,</i></p>	<p>The development is biodiversity certified as stipulated in the SEARs and confirmed by the Biodiversity assessment contained at Appendix Z.</p> <p>Comprehensive landscaping is proposed as detailed in the landscaping strategy at Appendix F.</p>
<p><i>(d) improved valuation, pricing and incentive mechanisms, namely, that environmental factors should be included in the valuation of assets and services, such as:</i></p>	<p>The costs of the new school will be borne indirectly by the NSW community as means of providing public education infrastructure to meet community expectations.</p>
<p><i>(i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,</i></p>	
<p><i>(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,</i></p>	
<p><i>(iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.</i></p>	

8.6.3. Green Star Benchmarking

GHD have advised that the design of the Marsden Park New Primary School will be benchmarked against a 4-star Green Star rated building. A preliminary scorecard including responsibility of point and method of achievement is included at Appendix A of the ESD report.

8.6.4. Sustainability Targets

The ESD report includes sustainability targets in accordance with principles regarded from the NSW design guide for Schools, the Environmental Design in Schools Manual Green Star 'Design & As Built' guidelines and the NARCLiM projected impacts of climate change for the Metropolitan Sydney Region. The following provides a summary of the ESD report's assessment against sustainability targets.

Future Proofing

The following measures have been implemented to future proof the design of the proposed new school:

- Selection of suitable materials that meet relevant design guidelines that are robust and durable;
- Passive solar heating/cooling;
- Installation of effective lighting controls,
- Real-time energy usage monitoring; and
- Renewable energy generation in the form of solar photovoltaic (PV) systems.

Indoor Environmental Quality

Passive design principles have been implemented including:

- the courtyard design of the building allows for cooling zones in warmer climates;
- native trees, shrubs, and groundcovers allow for shading;
- sun exclusion and glare control elements including sun shades, eave extensions, and vertical blades;
- the north south orientation allows for significant solar heat gain;
- shading is designed to ensure thermal comfort during the extreme temperatures experienced in summer by the site and save on energy consumption related to building cooling; and
- the courtyard built form has been employed to minimise the cross section width of the building, to allow for good cross ventilation of learning areas, which may be supplemented by ceiling fans.

Thermal Comfort

Thermal comfort modelling was undertaken to inform passive design decisions and tests concepts and evaluate the design against EFSG DG55 – Cooling Policy. Two representative spaces within the building were analysed for thermal comfort. The Main Library on Ground Floor and a representative Homebase on the northern façade were chosen. At this stage of design, thermal comfort has been assessed for the building as naturally ventilated. This has been done to evaluate the thermal performance of the passive design of the building in order to reduce the reliance of the building on air-conditioning, reduce energy consumption and decrease the carbon footprint of the building during operation. The proposal exceeds baseline parameters for cross ventilation U-value and shading.

Building Performance

The proposal has been assessed against building performance measures including:

- Overall energy requirements.
- Energy use reduction and generation measures.
- Building performance monitoring systems.

GHD have found that appropriate building performance measures have or can be suitably integrated in the built form design.

8.6.5. Climate Change

The ESD report includes a statement that addresses how the proposed development is responsive to the CSIRO projected impacts of climate change. It is found that the proposal includes appropriate design measures such as a two storey scale, shade measures, tree planting, and roof protection that will mitigate against hotter days.

Measures to mitigate drought periods include reduced water use, rainwater collection, and recycled water use. More extreme rainfall events are mitigated by OSD, WSUD measures, on site stormwater drainage, and protection of infrastructure.

Gustier wind conditions can be mitigated by a sheltered courtyard, and robustness of chosen materials.

8.6.6. Mitigation Measures

Measures to minimise consumption of resources, water and energy include:

- Naturally ventilated spaces;
- Waste management with clear targets for recycling;
- Efficient building management systems and equipment controls, including lighting;
- Effective shading and building glazing;
- Use of robust building materials; and
- Implementation of WSUD principles including OSD.

8.7. SOCIAL AND ECONOMIC IMPACTS

8.7.1. Methodology

Social Impact Assessment is defined as the process of analysing, assessing and responding to the potential social impacts of a proposed development, with a view to minimising negative social impacts and enhancing positive social impacts. A process of community and key stakeholder engagement was undertaken to inform the preparation of this EIS as summarised in **Section 7**.

8.7.2. Assessment

As the development is for a new school in a location that is currently under significant population growth pressures resulting in requirements for additional school enrolments, it is considered that the proposal will generate significant positive social and environmental impacts. SINSW are tasked with delivering once-in-a-generation school buildings, major upgrades and maintenance strategies that will ensure that every school-aged child has access to high quality education facilities at their local public school. The NSW government have invested \$6.7 billion over the next four years to deliver 190 new and upgrades schools to support population growth. The location of the proposed new school is the result of demographical trends analysis and an audit of the potential upgrading of existing educational establishments and assets in the locality. As demonstrated in **Section 1.6** of this EIS, the proposal is the preferred option and will meet the education needs of the locality.

The proposal will generate numerous beneficial social and economic impacts for Alex Avenue and the wider Blacktown LGA. The anticipated social and economic impacts include:

- The proposal will provide significant job opportunities. These include temporary job opportunities during demolition and construction, and ongoing teaching and administration jobs at the project's completion.
- The proposal will alleviate pressure off other school enrolments and cater for future population growth;
- The new school will incorporate programs to promote multiculturalism and inclusivity;
- Programs will be implemented that cater for those with disabilities or disadvantage;
- An OOSH will be provided which will provide flexibility for parents of future students;
- The proposal will provide a core piece of social infrastructure in the new Marsden Park Community with shared use of facilities to be further detailed at a later stage;
- The proposal assists with encouraging health and well-being of students, including the provision of a Green Travel Plan;
- The new school will have sufficient areas for indoor and outdoor recreation to improve the health and wellbeing of future students;
- The design will create a series of teaching spaces which are flexible and promote increased social interaction among students and teachers;
- The proposal will provide future students with learning facilities and spaces, enabling high-quality teaching;

- The proposal will create a safe and nurturing environment to cater for student's education needs and foster learning in an appropriate setting;
- The proposed built form has been designed to ensure residential amenity will be maintained to surrounding residential dwellings;
- The proposal delivers a new School that is sustainable and efficient; incorporating positive environmental measures including PV panels, rainwater tanks and WSUD initiatives;
- The external materials and finishes to be used complement the surrounding built and natural environment of Schofields. Accordingly, no negative impacts on the existing character of the area will be generated; and
- The proposal has been designed in accordance with CPTED design principles to deter crime. Accordingly, the proposal will positively activate the site, provide opportunities for passive surveillance and be designed of materials that are 'vandal-proof'.

8.7.3. Mitigation Measures

It is recommended that mitigation measures identified in **Section 10** of this EIS be implemented to ensure that the environmental amenity of residential development in the surrounding locality is maintained.

8.8. ABORIGINAL CULTURAL HERITAGE

8.8.1. Methodology

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been prepared to accompany this EIS at **Appendix P**. This report provides an assessment of the Aboriginal archaeological potential of the study area and to measures the impact of the proposed development on any soil profiles with the potential to contain Aboriginal archaeological deposits and objects. This ACHAR assess the impact of the proposal on any identified items or places of Aboriginal cultural heritage value

Findings from the ACHAR are used to develop mitigative strategies under the appropriate legislation and to devise an appropriate strategy for the management of Aboriginal archaeological and cultural heritage values of the area. In accordance with Office of Environment and Heritage Guideline and Part 6 of the National Parks and Wildlife Act 1974, the 28 day Aboriginal Stakeholder Consultation was undertaken to inform the preparation of the ACHAR (see **Section 7.9** of this EIS). . In addition to stakeholder consultation, the ACHAR includes background information searches and fieldwork.

The field inspection was undertaken on the 16th January 2019 by archaeological Benjamin Streat of AMAC/ SAS and a representative of the Deerubbin Local Aboriginal Land Council was present. The study site was inspected on foot. Where practical the whole of the study area was inspected, however, there were a number of limiting factors such as dense grass/weeds covering areas of the site as well as bitumen surface encompassing the western end of the study area.

8.8.2. Existing Environment

Background analysis of the environment and archaeological context undertaken by AMAC Group revealed that the study area has moderate - high surface disturbances. An AHIMS site search and the BGC DCP has revealed a registered site (Site No. 45-5-2752) bordering the northern boundary of the study area. This site contains three artefacts within a disturbed context.

The registered site includes an open campsite with stone artefact scatter, consisting of 3 artefacts

- A tan-brown coloured indurated mudstone flake fragment (14mmx14mmx5mm) with a feather termination;
- A red coloured silcrete flake fragment (17mmx10mmx6mm) with a feather termination;
- A tan coloured indurated mudstone flake (11mmx8mmx3mm) displaying typical conchoidal fracture characteristics including a broad platform, a bulk and feather termination.

8.8.3. Assessment

AMAC have assessed the potential aboriginal and archaeological heritage potential of the site and have found that the surrounding landscape features present do indicate that sub-surface Aboriginal objects and/or

deposits are likely in disturbed and undisturbed areas. These objects or deposits are considered to be of low to moderate Aboriginal archaeological significance.

Fieldwork undertaken by AMAC group found that the study area has been significantly disturbed in the form of complete clearance of all vegetation. Full exposure of soils indicated the site has also been subject to erosion due to surface runoff causing sheet erosion. There are no dwellings currently standing. A man-made dam exists along the northern boundary.

The ACHAR has confirmed that test excavation has been undertaken on the site in 2013 which resulted in the application of an Aboriginal Heritage Impact Permit (AHIP). This permit is currently still active and as such no further investigation is necessary.

8.8.4. Mitigation Measures

AMAC Group has provided the following management and mitigation measures after consultation with the proponent and the Office of Environment and Heritage:

- The proposed study site is contained to Lot 2889 DP 1230906 (Figure 9.1). The preliminary plans indicate future roads and associated works planned for the surrounding area, of which will directly impact site 45-5-2752, these road works are not subject of this assessment and therefore will require appropriate mitigation to take place such as either an AHIP or ACHMP depending on the development status of the proposed future works;
- Before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site, as to the status of the area and their responsibilities in ensuring preservation of the said area. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development;

Should any human remains be located during the following development;

- All excavation in the immediate vicinity of any objects of deposits shall cease immediately;
- The NSW police and OEH's Enviroline be informed as soon as possible;
- Once it has been established that the human remains are Aboriginal ancestral remains, OEH and the relevant Registered Aboriginal Parties will identify the appropriate course of action.

8.9. HERITAGE

8.9.1. Methodology

Urbis Heritage has prepared a Heritage Impact Statement (**Appendix O**) to assess the potential impact of the proposal on the heritage significance of Clydesdale House which is listed on the State Heritage Register (item 00674).

Urbis Heritage have undertaken a desktop analysis including a review of background information, and design team consultation.

8.9.2. Assessment

Although the curtilage of the State Heritage Item includes the area directly opposite the subject site, the State Heritage Register curtilage represents a reduced curtilage and does not include the area opposite the subject site. Given the substantial distance between the items it is not considered that there is potential for the proposal to have an impact on the significance of the heritage item as they will not be visible in the same context.

In accordance with the observations recorded in the Heritage Impact Statement, there is no potential for the proposal to generate any detrimental heritage impacts on the heritage listed Clydesdale House, including its setting. The proposal is therefore supported from a heritage perspective. Therefore, no mitigation measures are required.

8.10. NOISE AND VIBRATION

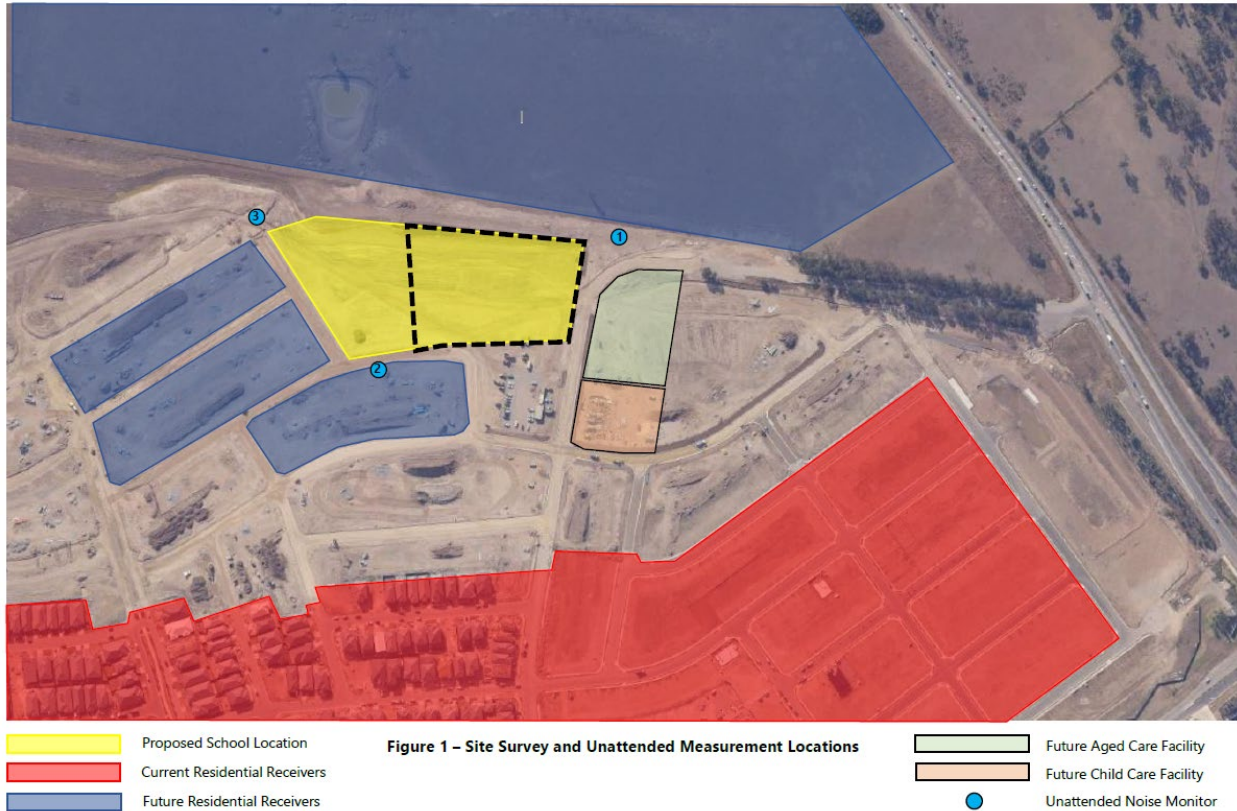
Acoustic Logic has undertaken noise and vibration impact assessment of the proposal (**Appendix H**). The findings of this report are summarised below.

8.10.1. Methodology

Unattended noise monitoring surrounding the site was conducted between Tuesday 15 January to Thursday 24 January using three Acoustic Research Laboratories noise monitors set on A-weighted fast response mode. All monitors were calibrated before and after the measurement using a Rion Type NC-73 calibrator.

Unattended noise monitors were installed at the locations shown in **Figure 22**.

Figure 22 – Unattended noise monitors



Source: Acoustic Logic

Noise impacts are based on 1,000 students occupying the new school. The temporary school would have half the number of students (500) and therefore the assessment for the permanent school remains relevant.

8.10.2. Operational Noise

Acoustic Logic have assessed operational noise against the guidelines referenced in the SEARs and their experience in the assessment of noise generation by schools. Their assessment is summarised below:

- **EPA Noise Policy for Industry:** the amenity levels appropriate for surrounding receivers are all below recommended noise levels.
- **Sleep Arousal Assessment:** maximum internal noise levels below 50-55dB(A) are unlikely to awaken people from sleep. One to two noise events per night with maximum internal noise levels of 65-70dB(A) are no likely to affect health and wellbeing significantly.

The noise emission assessment identifies that the learning and administration spaces are setback on average 30m from any residential receiver, generate low to medium levels of noise and therefore do not exceed the noise criteria set by Education SEPP.

The report identifies that noise emission from the mechanical plant will be assessed prior to construction once equipment items are selected and location is finalised. The report identifies that it is both possible and practical to treat noise from the operation of the proposed mechanical equipment to comply with the EPA NPfI criteria using standard acoustic treatments. Similarly, the report provides recommendations relating to the speaker positioning and selection of the school bell/ PA system.

Early morning (before school) use of the car park between 6:30-7:00am would generally readily comply with NPI trigger levels. Sleep disturbance trigger level is exceeded from car doors closing during early morning use of the car park. Acoustic Logic assessed this impact as negligible due to the infrequency of these events occurring. Peak daytime and evening use of the car park do not exceed the NPI project noise trigger levels.

With the exception of the proposed residences to the north that have an unobstructed view of the sports fields and play areas, noise emissions are typically compliant with a 'background +10dB(A)' noise emissions indicator. Acoustic Logic have concluded that the higher exceedances for exposed receivers to the north are not unreasonable given that playgrounds located near residential boundaries is a common scenario in school developments.

8.10.3. Construction Noise

Acoustic Logic has assessed construction noise impacts of the proposal considering the preliminary construction management plan contained at **Appendix L**. As there is no below ground/basement works proposed no piling or significant excavation is required. Additionally, the site is already cleared and graded.

Without mitigation measures, noise at the sensitive receivers around the site will exceed the noise affected level, and in some cases the highly noise affected level when operating near the northern boundary. Accordingly, careful management will be required to minimise acoustic impacts on the nearby residences.

These measures should be determined in detail when a contractor has been engaged. Notwithstanding, project-specific mitigation measures have been recommended in **Section 10** of this EIS.

The report identifies that there are no significant sources of vibration envisaged. It states that given the distance from nearby receivers, vibration impacts on all receivers is expected to be within the recommended levels.

8.10.4. Mitigation Measures

Acoustic Logic have identified the following mitigation strategies.

Operational

- All classrooms or learning spaces facing Northbourne Drive are to have minimum 6.38mm glazing fitted to operable frames with acoustic seals, with the overall rating achieving a minimum acoustic rating of Rw 30.
- All other classrooms facing adjacent roadways (north, south & west facades) are to have minimum 6mm glazing fitted to operable frames with acoustic seals, with the overall rating achieving a minimum acoustic rating of Rw27.
- Glazing requirements and any lightweight building elements are to be confirmed once building setbacks and layouts have been finalised.
- Waste collection should be scheduled to occur during the day time period only (7:30am – 6pm) to avoid disturbance to nearby residents outside of these hours. In particular, there should be no collection of waste during the night time period (10pm – 7:00am).
- General design principles are to be implemented for speaker positioning/selection.

Construction

- Where feasible for the construction process, locate the concrete pump to the northern end of the site to maximise the distance to existing residents. If possible, consideration may be given to localised barriers close to concrete pumps to further minimise noise impact.
- Quiet work methods/technologies to be implemented for materials handling and vehicle movements:
- Complaints handling procedures should be adopted.
- A detailed noise management plan should be developed by the main contractor that describes in detail the construction phases, programme, processes and equipment used, noise impact assessment and proposed mitigation and management.
- Site Induction should include a copy of the Noise Management Plan is to be available to contractors. Site induction should also detail the site contact is to be notified in the event of noise complaint.

8.11. CONTAMINATION

8.11.1. Methodology

A detailed site (contamination) investigation has been undertaken to accompany this EIS at **Appendix Q**. Investigations comprised:

- Review of available previous contamination and geotechnical investigations carried out on the site undertaken by Douglas Partners and other specialist consultants for the MPP subdivision;
- A desktop review of historical aerial photography and information published on the NSW EPA register, and NSW Department of Primary Industries;
- A site walkover by environmental scientists and engineers;
- Twenty-three boreholes were dug using a geotechnical drilling rigs, excavation of ten test pits, log and collect soil samples from all test pit locations at regular intervals upon signs of contamination, and installation of three groundwater monitoring wells.
- 20 soil samples were dispatched to an accredited laboratory for analysis of potential contaminants; and
- Three groundwater samples were also dispatched to an accredited laboratory for analysis of potential contaminants.

8.11.2. Assessment

The findings of the detailed site investigation undertaken by Douglas Partners are summarised as follows:

- **Soil:** all primary sample results for common contaminants and properties were below laboratory site assessment criteria. Some heavy metals were found in soils, however, these were found to be within site assessment criteria and therefore do not present a contamination hazard. No asbestos was observed in any samples above the laboratory limit of detection.
- **Groundwater:** concentrations of known contaminants in groundwater samples were below site assessment criteria. A significant exceedance of the chemical level levels for Manganese and minor exceedances of Nickel, Cadmium, Nickel and Zinc was encountered. It is expected that given the depth of groundwater that the impact on the development will be low. Notwithstanding, Douglas Partners have recommended that further testing of the groundwater be undertaken to confirm this conclusion.
- **Filling:** all contaminant concentrations for the analysed fill samples were within the contaminant thresholds for general solid waste.
- **Natural Waste:** all analytical results for the analysed natural samples including clay, gravel, soil or rock fines were within background ranges.

Based on their detailed site contamination investigations Douglas Partners consider that the site is suitable for the proposed use as a school. Accordingly, the proposal is considered to comply with provisions of SEPP 55 and is suitable for its intended use.

8.11.3. Mitigation Measures

To appropriately manage unexpected potential contamination issues encountered during development works, Douglas Partners recommend the implementation of an unexpected finds protocol during the development at this site. Additionally, any materials requiring off-site disposal must be classified, managed and disposed in accordance with the Protection of the Environment Operations Act 1997.

8.12. UTILITIES

Utility services will be provided to the site as described in **Section 4.12** and in the Electrical and Communications Infrastructure Report contained at **Appendix U**. Separate development approval will be sought for these works. As demonstrated in supporting information the site is capable of being connected to essential utilities infrastructure and no mitigation measures are required.

8.13. WATER AND SOILS

8.13.1. Stormwater Management

A Stormwater Management Plan has been prepared to accompany the proposal at **Appendix S**. The plan provides measures an assessment of the development against local authority requirements considering existing and proposed stormwater conveyance flows.

As displayed in **Figure 23** overland flows will be captured and conveyed by the adjacent local roads. Proposed stormwater conveyance measures as part of the development are described at **Section 4.13** of this EIS and **Appendix S**. Stormwater conveyance and attenuation measures are proposed in accordance with Council requirements. Stormwater quality measures are to be implemented to ensure that potential pollutants are suitable dealt with.

Figure 23 – Upstream Catchments



Source: Wood and Grieve

8.13.2. Erosion and Sediment Control

A Soil and Water Management Plan has prepared as part of the development application documentation and is included at **Appendix Y**.

Common control measures adopted include:

- Sedimentation fences;
- Stormwater drainage inlet protection;
- Overland flow diversion swales;
- Shaker Grids and wash downs for vehicles leaving the construction site;
- Dust control measures.

The maintenance of these control measures throughout their intended lifespan will ensure that the risk of erosion and sedimentation pollution of the downstream watercourse will be minimized.

8.13.3. Soils

A geotechnical investigation has been prepared to accompany this EIS at **Appendix R** this report provides a summary of the existing subsurface conditions of the site. The Structural Feasibility Report accompanying this EIS at **Appendix AA** has confirmed that the new school can be built at the site subject.

8.14. FLOODING

A stormwater management plan accompanies this EIS at Appendix S prepared by Wood and Grieve. Wood and Grieve has reviewed Council flood maps and the DCP and have determined that the site is located outside the flood planning area. There proposed development is not impacted by 100 year ARI flooding (see **Figure 24**).

Figure 24 – Flood Prone Land Map



Source: Wood and Grieve

The site is, however identified by Council as being a low flood risk area being:

“land within the floodplain, ie within the extent of the Probable Maximum Flood (PMF) but not identified as either a high flood risk or medium flood risk precinct. Therefore the low flood risk precinct is all the land between the 100year and PMF flood extents.”

The site currently falls from south to north with a low point at the northwest corner as such, the greatest risk of flooding will be in this area. For this reason a flood excavation has been prepared by Wood and Grieve and to accompany this EIS at **Appendix S**. The plan includes measures to be taken to mitigate any risk to students, teachers, and visitors during in a probable maximum flood event. Flood protection measures and flood evacuation methodology will be designed in accordance with Council requirements.

8.15. BUSHFIRE

8.15.1. Methodology

Ecological has undertaken a Bushfire Protection Assessment to accompany this EIS at **Appendix CC**. The site is not identified as bushfire prone land pursuant to Blacktown City Council mapping. However, the proposed development is located within 50m of grassland to the north which is considered a bushfire hazard

in its current state. It is noted by Ecological that this hazard is temporary and will be removed in the near future as bulk earthworks occur.

As the development is for a new school it is a Special Fire Protection Purpose (SFPP) development. Accordingly, the development proposal was assessed in accord with 'Planning for Bush Fire Protection 2006' (RFS 2006). Ecological have developed a performance-based solution using the Pre-Release version of Planning for Bush Fire Protection 2018 (PBP 2018) to determine the Asset Protection Zones (APZ).

To assess the development against the relevant legislation and guidelines referenced above, Ecological has undertaken a desktop analysis including a review of background information, design team consultation, and GIS analysis. The findings of their assessment are presented below.

8.15.2. Assessment

The Bushfire Protection Assessment has been prepared to demonstrate that bushfire protection measures can comply with the relevant provisions of PBL 2006 and the requirements of the Rural Fire Service in relation to Asset Protection Zones, construction standards, fire fighting vehicle access roads and fire-fighting water supply.

Ecological has recommended that the development is suitable for approval from a bushfire protection perspective.

8.15.3. Mitigation Measures

The following performance-based criteria or acceptable solutions are presented in the Bushfire Protection Assessment:

- Establishment of an asset protection zone along the proposed future road to the north;
- Manage the asset protection zone in accordance with inner protection area standards;
- Use appropriate construction methods in accordance with Australian standards;
- Incorporate a turning circle of 12 metres outer radius within the car park;
- Implement appropriate water, electricity and gas accessibility and safety measures; and
- An excavation and emergency response plan compliant with requirements of the NSW RFS guidelines is to be implemented prior to occupation.

8.16. DISABILITY DISCRIMINATION ACT (DDA) COMPLIANCE

A Disability Discrimination Act (DDA) Report was prepared by MBC Consultancy and is attached at **Appendix W**. This assessment has addressed compliance with the Disability (Access to Premises - Buildings) Standards 2010, and Parts D3 and F2 of the Building Code of Australia 2019 (BCA).

The assessment confirms that:

The design documentation provided to date has been assessed in respect to the deemed to satisfy requirements of Part D3 and F2 of the Building Code of Australia 2019, the Disability Access to Premises Standards 2010, the Disability Discrimination Act (DDA) 1992 and the relevant parts of AS1428.1 2009 and AS1428.4.1 2009. The design is at a point where the State Significant Development application can be applied for, further reviews will be carried out prior to the issue of the S109R Crown Works Certificate.

Accordingly, no mitigation measures are required.

8.17. BUILDING CODE OF AUSTRALIA COMPLIANCE

A Building Code of Australia Report was undertaken by Modern Building Consultants and is enclosed at **Appendix V**. The report identifies that subject to detailed design, the proposal is capable of compliance with the BCA. The design is at a point where the State Significant Development application can be applied for, further reviews will be carried out prior to the issue of the S109R Crown Works Certificate.

Accordingly, no mitigation measures are required.

8.18. BIODIVERSITY ASSESSMENT

8.18.1. Methodology

Ecological have prepared a Biodiversity Assessment which assesses and documents the flora and fauna impacts related to the proposal. A desktop analysis has been undertaken which has relied on background information, consultation with the project team, and GIS mapping.

8.18.2. Assessment

The site is devoid of vegetation except for a strip of grass in the northern portion. No trees are proposed to be removed. The EIS is accompanied by a Biodiversity Assessment contained at **Appendix Z**. Ecological have confirmed that site is biodiversity certified pursuant to the *Biodiversity Conservation Act 2016*. As such no further assessment of impacts to threatened species, populations or ecological communities is required under the BC Act.

Review of GIS imagery has indicated that the site has been cleared and used for agricultural purposes.

8.18.3. Mitigation Measures

A list of local provenance species has been provided to inform landscaping decisions for the project. The project landscape architects have confirmed that local provenance species list provided by Ecological has been considered in the preparation of the planting pallet.

9. SECTION 4.15 ASSESSMENT SUMMARY

The proposal has been assessed in accordance with the matters for consideration listed in Section 4.15 of the *Environmental Planning and Assessment Act 1979* as outlined below:

Table 14 – Section 4.15 Assessment Summary

Consideration	Comment
Environmental Planning Instrument	State and Local Environmental Planning Instruments have been assessed in Section 5 of this EIS.
Draft Environmental Planning Instruments	Draft Environmental Planning Instruments are assessed in Section 5 of this EIS.
Development Control Plans	The proposal has been assessed against the Blacktown City Council Growth Centre Precincts Development Control Plan 2016 in Section 5.14 of this EIS. Although we note the provision of Clause 11 of the SEPP SRD excludes the application of DCPs to SSD.
Any Matters Prescribed by the Regulations	This EIS has been prepared in accordance with Sections 6 and 7, Part 3 in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> .
Likely Impacts of the Development	An impact and risk assessment has been provided in Section 8 of this EIS. Mitigation measures to the risks and impacts identified within Section 7 and the relevant Appendices are contained within an Environmental Risk Assessment Matrix in Section 10 .
Suitability of the Site	The proposal is for an educational use on a site which identified for a new primary school within the indicative layout plan for the Marsden Park Precinct. The proposal is also permissible with consent in the R2 (Low Density Residential) Zone and is consistent with the zone objectives. Further, there are no significant environmental constraints that would limit the proposal from being developed at the site.
Any Submission made in accordance with this Act or Regulations	Submissions will be considered following exhibition of the application.
The Public Interest	The public interest is best served by the orderly and economic use of land for permissible purposes in a form which is cognisant of and does not impact unreasonably on development on surrounding land. The proposal satisfies the needs and requirements of the application to provide a school at this location that adequately meets the educational needs of anticipated enrolments growth in the Schofields educational cluster.

10. MITIGATION MEASURES AND ENVIRONMENTAL RISK ASSESSMENT

The SEARs require an environmental risk analysis to identify potential environmental impacts associated with the proposal.

This analysis comprises a qualitative assessment consistent with AS/NZS ISO 31000:2009 Risk Management–Principles and Guidelines (Standards Australia 2009). The level of risk was assessed by considering the potential impacts of the proposed development prior to application of any mitigation or management measures. Comment on residual risk (the remaining level of risk following implementation of mitigation and management measures) is also provided within this section.

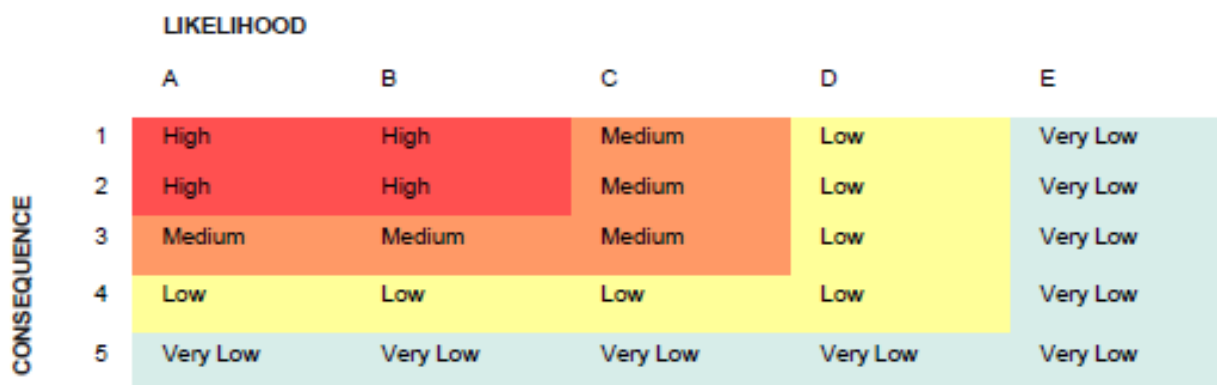
Risk comprises the likelihood of an event occurring and the consequences of that event. For the proposal, the following descriptors were adopted for ‘likelihood’ and ‘consequence’.

Table 15 – Environmental Risk Matrix Summary

Likelihood		Consequence	
A	Almost Certain	1	Widespread and/or irreversible impact
B	Likely	2	Extensive but reversible (within 2 years) impact or irreversible local impact
C	Possible	3	Local, acceptable or reversible impact
D	Unlikely	4	Local, reversible, short term (< 3 months) impact
E	Rare	5	Local, reversible, short term (< 1 month) impact

The risk levels for likely and potential impacts were derived using the following risk matrix.

Figure 25 – Risk Matrix



The results of the environmental risk assessment for the proposed development are presented in **Table 16** and are based upon the range of technical and specialist consultant reports appended to this EIS.

The table has directly related mitigation measures responding to each impact (satisfying the SEARs for a consolidated summary of all proposed mitigation measures) also based upon the range of technical and specialist consultant reports appended to this EIS.

With the mitigation measures proposed, the impacts resulting from the proposal will be acceptable.

Table 16 – Risk Assessment and Mitigation Measures

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
Transport and Accessibility	Impacts on the road network during the construction phase of the development	A	3	Medium	<ul style="list-style-type: none"> • All deliveries will be within the approved work hours, with emphasis made on deliveries to be outside peak periods of road network activity where possible in order to reduce the impacts on traffic flows and safety to drivers. • Deliveries of materials to the site will be staggered over the course of a working day so that any queuing of vehicles occurs within the work site. The access road to the site from • Northbourne Drive will need to provide sufficient capacity to accommodate queued vehicles within the site boundaries and construction vehicles are not expected to tailback and impede traffic flow on the adjoining road network (i.e. Donnelly and Blackstone Streets). • A designated area for contractor vehicle parking will be provided within the construction site boundaries. The allocated area is anticipated to accommodate parked vehicles informally. • Contractors will be encouraged to assist in the transportation of workers using carpooling arrangements or where possible, the available public transport to reduce the number of employee related trips.
	Maintain and reduce car dependency to the new school.	D	2	Low	The new School should review the Green Travel Plan and implement the identified actions as best they can.

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
European Heritage	Adverse impact on the heritage significance of the locality	D	5	Very Low	No mitigation measures are required.
Aboriginal and Cultural Heritage	Adverse impact on the aboriginal and cultural heritage significance of the locality	C	3	Medium	<ul style="list-style-type: none"> The proposed study site is contained to Lot 2889 DP 1230906 (Figure 9.1). The preliminary plans indicate future roads and associated works planned for the surrounding area, of which will directly impact site 45-5-2752, these road works are not subject of this assessment and therefore will require appropriate mitigation to take place such as either an AHIP or ACHMP depending on the development status of the proposed future works; Before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site, as to the status of the area and their responsibilities in ensuring preservation of the said area. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development; <p>Should any human remains be located during the following development;</p> <ul style="list-style-type: none"> All excavation in the immediate vicinity of any objects of deposits shall cease immediately; The NSW police and OEH's Enviroline be informed as soon as possible; Once it has been established that the human remains are Aboriginal ancestral remains, OEH and the relevant

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
Ecologically Sustainable Development	The new school will consume excessive resources, water, and energy.	C	3	Medium	<p>Registered Aboriginal Parties will identify the appropriate course of action.</p> <p>Measures to minimise consumption of resources, water and energy, as well as providing better environmental quality outcomes are included within design of the new school facility. Implementation of these measures will realise the opportunity to achieve industry best practice values for consumption and sustainability. Measures include:</p> <ul style="list-style-type: none"> • Naturally ventilated spaces; • Waste management with clear targets for recycling; • Efficient building management systems and equipment controls, including lighting; • Effective shading and building glazing; • Use of robust building materials; and • Implementation of WSUD principles including OSD.
Noise and Vibration	Noise generation during the construction and on-going operation of the new school..	C	3	Medium	<p>Operational</p> <ul style="list-style-type: none"> • All classrooms or learning spaces facing Northbourne Drive are to have minimum 6.38mm glazing fitted to operable frames with acoustic seals, with the overall rating achieving a minimum acoustic rating of Rw 30. • All other classrooms facing adjacent roadways (north, south & west facades) are to have minimum 6mm glazing fitted to operable frames with acoustic seals, with the overall rating achieving a minimum acoustic rating of Rw27.

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
					<ul style="list-style-type: none"> • Glazing requirements and any lightweight building elements are to be confirmed once building setbacks and layouts have been finalised. • Waste collection should be scheduled to occur during the day time period only (7:30am – 6pm) to avoid disturbance to nearby residents outside of these hours. In particular, there should be no collection of waste during the night time period (10pm – 7:00am). • General design principles are to be implemented for speaker positioning/selection. <p>Construction</p> <ul style="list-style-type: none"> • Where feasible for the construction process, locate the concrete pump to the northern end of the site to maximise the distance to existing residents. If possible, consideration may be given to localised barriers close to concrete pumps to further minimise noise impact. • Quiet work methods/technologies to be implemented for materials handling and vehicle movements: • Complaints handling procedures should be adopted. • A detailed noise management plan should be developed by the main contractor that describes in detail the construction phases, programme, processes and equipment used, noise impact assessment and proposed mitigation and management. • Site Induction should include a copy of the Noise Management Plan is to be available to contractors. Site

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
Contamination	Risk to health and safety of workers and future occupants of the site.	C	4	Low	<p>induction should also detail the site contact is to be notified in the event of noise complaint.</p> <p>To appropriately manage unexpected potential contamination issues encountered during development works, Douglas Partners recommend the implementation of an unexpected finds protocol during the development at this site. Additionally, any materials requiring off-site disposal must be classified, managed and disposed in accordance with the Protection of the Environment Operations Act 1997.</p>
Light Spill	Lighting to the new school	C	4	Low	<p>Final lighting proposed to be designed to meet guidelines standards and regulations including:</p> <ul style="list-style-type: none"> • AS 4282:2019 Control of the obtrusive effects of outdoor lighting. • AS 1158:2005 Lighting for roads and public areas. • State Environmental Planning Policies. • NSW Educational Facilities Standards and Guidelines.
Stormwater Management	Sediment run-off from the site entering the stormwater system of surrounding streets.	C	4	Low	<p>Common control measures adopted include:</p> <ul style="list-style-type: none"> • Sedimentation fences; • Stormwater drainage inlet protection; • Overland flow diversion swales; • Shaker Grids and wash downs for vehicles leaving the construction site; and • Dust control measures.

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
	Site stormwater runoff adversely impacts on stormwater flows and the water quality of the receiving waterways downstream of the site.	B	3	Medium	<ul style="list-style-type: none"> Stormwater conveyance and attenuation measures are proposed in accordance with Council requirements. Stormwater quality measures are to be implemented to ensure that potential pollutants are suitable dealt with. Surface runoff from the development sites will be directed to stormwater inlet structures using the design topography of these elements. Stormwater runoff will be contained by on-site detention tank which will attenuate the total discharge flows to the 100year ARI pre-developed peak flows. This OSD tank is to provide 130m3 of storage.
Biodiversity Assessment	The development will impact on threatened flora and fauna species.	D	5	Very Low	A list of local provenance species has been provided to inform landscaping decisions for the project.
Flooding	Future students and staff are exposed to flood risk	D	3	Low	<ul style="list-style-type: none"> The proposed development site is not impacted by 100 year ARI flooding. The site is, however identified by Council as being a low flood risk area within the PMF. A flood excavation plan is to accompany the formal EIS submission. The plan will include measures to be taken to mitigate any risk to students, teachers, and visitors during in a probable maximum flood event. Flood protection measures and flood evacuation methodology will be designed in accordance with Council requirements.

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
Construction and Operational Waste	Disposal of waste generated during demolition and construction	D	3	Low	<p>Wastes generated on the site during construction will be managed and minimised by a combination of waste planning initiatives and on site controls. Waste planning initiatives will include:</p> <ul style="list-style-type: none"> • Designing buildings to minimise on site cutting of components; • Maximising on site assembly rather than fabrication tasks; • Careful ordering of materials such as sand and building products to match quantities with amounts required, and on time ordering rather than having materials stored on site for months before being used; and • Segregating materials and providing weather protection for stored materials on site would maximise their fitness for use and reduce spoilage. <p>On site waste handling controls will include:</p> <ul style="list-style-type: none"> • Developing and implementing a Construction Waste Management Plan. • Segregating wastes generated on site by using different skip bins for recycling and waste, with separate bins for different recyclable materials, and ensuring all waste disposal bins are clearly marked; • Keeping records of quantities of waste and recycled materials disposed of, and the destinations of these materials and ensuring that wastes are only disposed of to licenced facilities.

Matter	Potential Impact	Likelihood	Consequence	Risk Level	Proposed Mitigation Measures
	Disposal of waste generated during operation of the new school.	D	3	Low	<p>GHD have estimated that the following waste collection equipment would be required to deal with the estimated operational waste generation:</p> <ul style="list-style-type: none"> • Two 1,100 litre rear lift bin per week for garbage • One 660 litre bin per week for recyclables. • It may also be necessary to have a second 660 litre bin for bulky cardboard. Some contractors may also provide a separate bin for office paper. • In addition, items such as batteries and fluorescent tubes may be separated by staff for recycling.

11. EVALUATION AND CONCLUSION

As outlined in this EIS, the site is suitable for the proposed development in that:

- The site is zoned R2 (Low Density Residential) which is identified as a 'prescribed zone' under Clause 33 Part 4 of the Education SEPP. Clause 35(1) of the Education SEPP permits development for the purpose of a school to be development with consent within a prescribed zone;
- The proposal is consistent with the objectives of relevant planning controls and achieves a high level of planning policy compliance and design excellence. The height non-compliance minimal and does not create additional amenity impacts to surrounding development;
- The proposal satisfies each item within the SEARs;
- There are no significant environmental constraints limiting development;
- Subject to the various mitigation measures recommended by the specialist consultants, the proposal does not have any unreasonable environmental impacts that cannot be suitably managed;
- The proposal will result in the development of a high-quality educational environment for staff and students, which has positive impacts;
- The proposal has been designed to make a positive contribution to emerging built form context of the Marsden Park Precinct. The proposed built form is sympathetic to the character of the surrounding neighbourhood and respects visual privacy, solar amenity and acoustic amenity of neighbouring residential dwellings; and
- The proposal will contribute positively to energy efficiency and environmental sustainability. The design has incorporated many ESD features to reduce energy consumption during the life of the proposed development.

Considering the above and the content contained in this EIS, it is recommended that the Department approve this SSD Application, subject to appropriate conditions.

DISCLAIMER

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A SEARS

APPENDIX B QS REPORT

APPENDIX C SURVEY

APPENDIX D ARCHITECTURAL PLANS

APPENDIX E TEMPORARY SCHOOL SPECIFICATION SHEETS

APPENDIX F LANDSCAPE STRATEGY

APPENDIX G URBAN DESIGN REPORT

APPENDIX H NOISE AND VIBRATION IMPACT ASSESSMENT

APPENDIX I TRANSPORT IMPACT ASSESSMENT

APPENDIX J LIGHTING STRATEGY

APPENDIX K CONSTRUCTION STAGING PLAN

APPENDIX L PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

APPENDIX M PRELIMINARY CONSTRUCTION TRAFFIC MANAGEMENT PLAN

APPENDIX N ESD REPORT

APPENDIX O HERITAGE IMPACT STATEMENT

APPENDIX P ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

APPENDIX Q CONTAMINATION ASSESSMENT

APPENDIX R GEOTECHNICAL REPORT

APPENDIX S STORMWATER MANAGEMENT REPORT

APPENDIX T HYDRAULIC INFRASTRUCTURE SERVICES AND WATER CYCLE MANAGEMENT REPORT

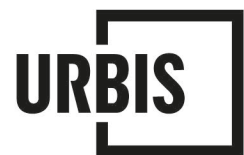
APPENDIX U ELECTRICAL & COMMUNICATIONS INFRASTRUCTURE REPORT

APPENDIX V BUILDING CODE OF AUSTRALIA REPORT

APPENDIX W DISABILITY DISCRIMINATION ACT (DDA) REPORT

APPENDIX X WASTE MANAGEMENT PLAN

APPENDIX Y SEDIMENT AND EROSION CONTROL PLAN



APPENDIX Z BIODIVERSITY STATEMENT

APPENDIX AA STRUCTURAL REPORT



APPENDIX BB CONSULTATION URBIS OUTCOMES REPORT

**APPENDIX CC BUSHFIRE PROTECTION
ASSESSMENT**



**APPENDIX DD RAINWATER
URBIS HARVESTING AND REUSE REPORT**