

GYDE

Upgrades to North Sydney Public School SSDA - 11869481

State Significant Development Application
182 Pacific Highway, North Sydney

submitted to Department Planning Industry and Environment
on behalf of NSW Department of Education

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Report Version: Final

EIS CERTIFICATION

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Declaration:

I declare that this EIS has been prepared in accordance with Schedule 2 of the EPA Regulation 2000, that the EIS contains all available information that is relevant to the environmental assessment of the proposed development and that the information contained in the EIS is neither false or misleading.

Signature:**Date:** 27/08/2021

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EXECUTIVE SUMMARY

This Environmental Impact Statement (EIS) has been prepared by GYDE Consulting (GYDE) on behalf of the NSW Department of Education (DoE) in support of a State Significant Development Application SSDA - 11869481 (SSDA). The subject SSDA relates to upgrades to the existing North Sydney Public School (the school) which is located 182 Pacific Highway, North Sydney (the site).

The upgrades to the school by the DoE reflect the significant need for upgrades to public education infrastructure at the site to service the school's catchment. To meet the future demand, the DoE is required to provide upgrades to the existing school with the modern facilities required for to facilitate a contemporary teaching and learning environment.

As the proposal is for upgrades to an existing school with a capital investment value (CIV) greater than \$20 million, pursuant to Schedule 1 Clause 15(2) of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP), it comprises State Significant Development (SSD). The CIV for the project is \$35,262,872.

This EIS is submitted to the Department of Planning, Industry and Environment (DPIE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of an application for SSD. This EIS has been prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs) for SSDA - 11869481 issued on 24 December 2020, Part 4 of the EP&A Act and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation). This EIS should be read in conjunction with the SEARs attached in Appendix A, and the supporting technical plans and documents provided in Appendices B- BB.

The DoE seeks consent for upgrades to the existing North Sydney Public School. In summary, the proposal entails:

- Demolition of the existing hall (Building B), haven building (Building C) and 6 temporary buildings;
- Construction of a three-storey building comprising:
 - staff administration rooms;
 - 16 homebases
 - a library;
 - a hall;
 - out of school hours care facilities;
 - a covered outdoor learning area;
 - bicycle parking and end of trip facilities for staff; and
 - services, amenities and access.
- New entry gate and forecourt from Bay Road;
- Internal refurbishment of the ground floor of Building G from an existing library to 3 homebases;
- An increase in student numbers from 869 to 1,012;
- An increase in staff numbers from 80 to 87; and
- Associated tree removal, landscaping and excavation to facilitate the above works.

The proposal maintains:

- The gates and fence of former Crows Nest House including the entrance from Pacific Highway and Bay Road;
- The existing gate along McHatton Street;
- The outdoor play area to the east of Building A;

- Existing covered outdoor learning area adjacent to Building A;
- The basketball courts and staff carpark in the western part of the site;
- The significant tree planting on all school boundaries;
- Buildings A, D and F noting minor internal refurbishments are being undertaken outside of the SSDA scope of work (exempt development) to improve student amenities and canteen; and
- Building G, with the exception of internal refurbishment of the ground floor as a part of the subject SSDA.

This EIS is structured as follows:

- Section 1: Introduction
- Section 2: Site Analysis
- Section 3: Description of the Proposed Development
- Section 4: Strategic Planning Context
- Section 5: Statutory Planning Context
- Section 6: Stakeholder Engagement
- Section 7: Environmental Assessment
- Section 8: Mitigation Measures
- Section 9: Environmental Risk Assessment
- Section 10: Conclusion

The DoE and wider project team have carried out stakeholder and agency consultation, as required by the SEARs, including with Aboriginal stakeholders, Council, Energy Environment and Science Group, Sydney Water, Ausgrid, Transport Working Group (TWP), the State Design Review Panel (SDRP) and the broader community. The advice received throughout the consultation process has informed the development of the design to-date, noting that engagement will continue through construction and to completion, reflecting a commitment by the DoE to provide a quality, well-considered and objective- driven outcome. The development has also been driven by considerable input from the wider project team in consideration of key environmental issues pertaining to the site, particularly in relation to noise, vibration, drainage, traffic, parking, accessibility, contamination, European heritage, Aboriginal cultural heritage and servicing capacity. A range of options have also been considered at various stages of the project, to balance appropriate inputs.

The proposal will result in a high quality, well-articulated, flexible, energy efficient and low maintenance development, that has been designed to provide optimal upgrades to teaching spaces on-site for staff, students and visitors (indoor and outdoor), and that integrates appropriately within the site and the surrounds. The proposed landscaping and public domain improvements further enhance the integrated design of the development, and in terms of the latter, results in improved accessibility to the school within the surrounding environmental context.

The proposal has been assessed in this EIS as achieving acceptable environmental amenity outcomes including desirable outcomes for acoustic amenity (both internal and external to the site), traffic movements, stormwater drainage, waste management, visual impact, geotechnical and Aboriginal cultural heritage. Furthermore, the proposal incorporates a wide range of ecologically sustainable development (ESD) initiatives. A series of recommendations drawn from the wider project team and consultant inputs have been developed and included as mitigation measures in the EIS. These mitigation measures primarily relate to geotechnical, contamination, heritage, Aboriginal heritage/archaeology, ESD, traffic, tree affection, acoustic and construction/staging. They will ensure any potential impact, however minor, is satisfactorily ameliorated.

The proposed works have been designed to, and will be carried out in, the public interest. The SSDA will meet the project objectives to provide improved educational facilities at the school in a high quality built and landscape environment, which appropriately addresses the wellbeing, safety and accessibility needs of children, staff and visitors.

Accordingly, it is recommended that consent be granted to the proposal, subject to the implementation of suitable conditions of consent reflecting those mitigation measures set out in this EIS.

1. INTRODUCTION

1.1. Project Team

Suitably qualified technical consultants were engaged to assist in the preparation of this SSDA as outlined in the following table.

Table 1: Project team

APPENDIX	DELIVERABLE	PREPARED BY
A	SEARs	DPIE
B	Architectural Plans Architectural Design Report including Visual Impact Assessment	Fulton Trotter
C	Landscape Plans and Design Report	Taylor Brammer Landscape Architects
D	Survey Plan	Project Surveyors
E	CIV Report	Genus Advisory
F	BDAR Waiver, BDAR Waiver Report and Supplementary Letter	Eco Logical Australia and DPIE
G	Geotechnical Report including Acid Sulfate Soils	Tetra Tech Coffey
H	Stormwater Management Report and Plans including Flooding	Aurecon
I	Utilities and Services Report	LCI
J	Preliminary Site Investigation including Salinity	Tetra Tech Coffey
K	Noise and Vibration Assessment Report	Marshall Day Acoustics
L	Social Impact Assessment	Elton Consulting
M	Arboricultural Impact Assessment	Arboreport
N	Transport and Accessibility Assessment Report Parking Restriction Plan	Ason Group
O	School Transport Plan	Ason Group
P	Ecological Sustainable Development Report	Integral
Q	Accessibility Report	Philip Chun
R	BCA Report	Philip Chun
S	Aboriginal Cultural Heritage Assessment Report Aboriginal Archaeological Assessment	Austral Archaeology
T	Heritage Impact Statement	Curio Projects
U	External Lighting Strategy	LCI

APPENDIX	DELIVERABLE	PREPARED BY
V	Construction Environmental Management Plan	Turner & Townsend
W	Construction and Demolition Waste Management Plan	Elephants Foot
X	Operational Waste Management Plan	Elephants Foot
Y and Section 6 of this EIS	Consultation Meeting Minutes	T&T, Schools Infrastructure NSW, GYDE Consulting
Z	Section 10.7 Planning Certificates	North Sydney Council
AA	Staging Plan	Turner & Townsend
BB	Civil and Structural Report	Aurecon
CC	Connecting with Country	Tocomwall

1.2. The Site

The proposed development is to be located within the grounds of the existing North Sydney Public School at 182 Pacific Highway, North Sydney, which is located within the North Sydney Local Government Area (LGA). Refer to Figure 1 and 2 on the page over for a site location plan and aerial view of the site. The site is legally described as Lot 1 in Deposited Plan (DP) 183591 and Lot 1 in DP184559. The site has three street frontages to Pacific Highway (east), Bay Road (south) and McHatton Street (north). The existing school currently accommodates several buildings, outdoor play space, at-grade carpark and sports facilities. An extract of the existing site plan is in Figure 3.

Upgrades to North Sydney Public School

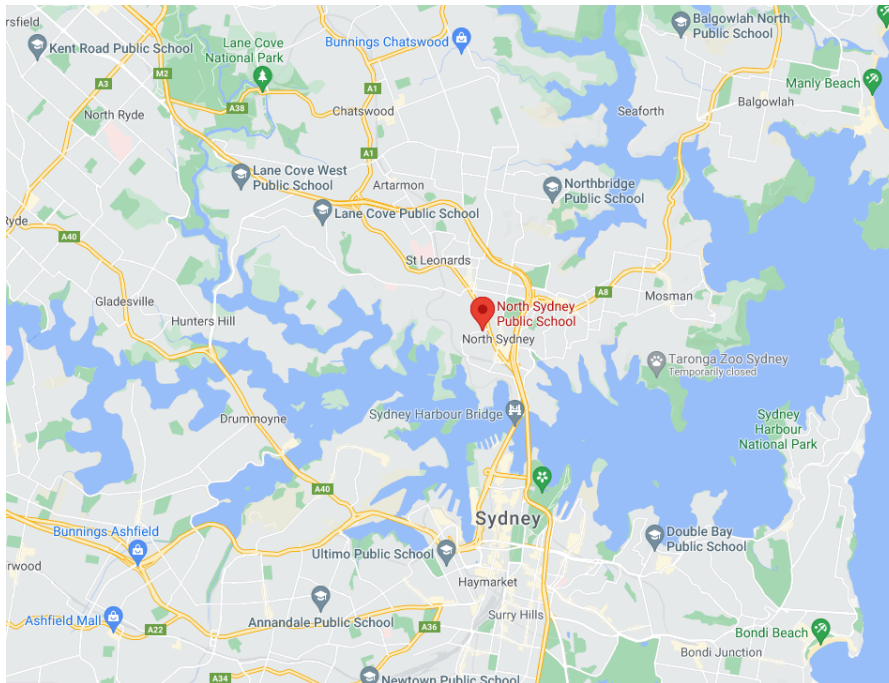


Figure 1: Regional context map, site identified with a red marker (Source: Google Maps)

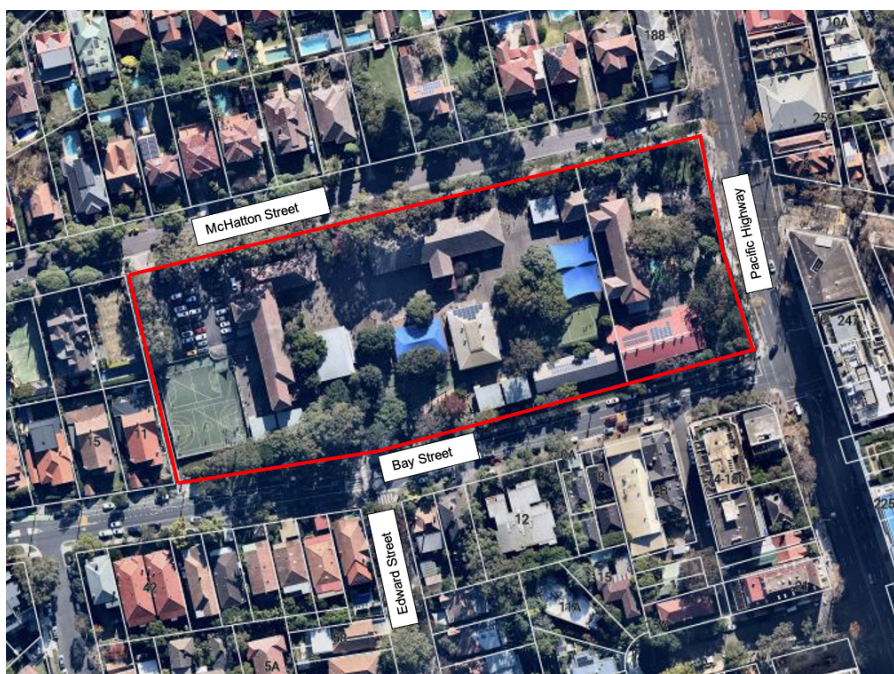


Figure 2: Aerial photograph, site boundaries outlined red (Source: Near Maps)

In summary, the site is characterised as follows:

- Buildings A, D and F located on the site are listed on the DoE's Section 170 Heritage Register;

- The gates and fence of former Crows Nest House fronting the Pacific Highway and Bay Road are listed as a local heritage item (I0957) under the *North Sydney Local Environmental Plan 2013* (NSLEP);
- The site is not bushfire prone land;
- The site is not flood affected;
- The site is not affected by acid sulfate soils;
- The site is not affected by salinity;
- The site does not contain ecological or biodiversity values; and
- The site is suitable for the ongoing land use as a primary school with respect to contamination.

1.3. The Proposal

1.3.1. Background

The DoE is responsible for early childhood, primary education, secondary education, adult, migrant and higher education in New South Wales (NSW). DoE is the largest provider of public education in Australia with the responsibility for delivering high-quality public education to two-thirds of the NSW student population.

NSW is facing unprecedented growth, particularly in children under 15 years of age. By 2031, an additional 269,000 new students will require access to government and non-government schools, of which over 164,000 expected to enter the government school system. This growth is significantly above historical trends. By law, all school-age children are eligible to attend a government school.

This means that by 2031, government school enrolments will rise by 21% on 2016 trends. More than 80% of this growth will be in Sydney, which will see more schools at 100% capacity or facing overcrowding unless new ways of asset planning and school's operation are implemented.

Consequently, the NSW has committed to investing \$6.7 billion to deliver 190 new and upgraded schools to support communities across NSW.

The Business Case dated June 2020 sets out an investment case for the proposed upgrade to the subject school. The Business Case responds to an election commitment in 2019 for funding to be allocated for a planned upgrade of the subject school.

1.3.2. Project Need

In summary, the drivers for the project are:

- Population driven demand;
- Specific needs such as community facilities;
- Fit for purpose learning;
- Asset condition; and
- Sustainable development.

There is forecast to be a student capacity shortfall of 263 students by 2026 and 484 by 2036, the Business Case partially addresses the shortfall. Failing to address the demand for educational infrastructure will lead to overcrowded school which will:

- Negatively impact learning outcomes;

- Pose a risk to the health and safety of students and staff;
- Lead to loss of confidence in the public education system; and
- Pose a reputation risk to the NSW Government.

In addition to the shortfall of student capacity, there is an appetite for more future focused and fit for purpose learning spaces. The school currently has 28 existing learning spaces which do not meet Educational Facilities Standards and Guidelines (EFSG) recommendations (i.e less than 60m²).

1.3.3. Alternatives Considered

The Business Case investigated various options and revalidated a refined shortlist of options. Shortlist options considered in the Business Case included:

1. Base case – do minimum scenario

- Maintain the school as is and service additional capacity with demountables.

2. Option 4B.2 (Core 35- up to 1,200 students)

- Upgrade the school to 1,012 students;
- Design rationale was to retain as many of the existing buildings to minimise capital costs;
- Resulted in a design which built around the existing buildings and led to non-optimal play space; and
- Library and COLA with departures from the EFSG.



Figure 3: Extract of option 4B.2 masterplan (Source: DoE Business Case/Perumal Pedaovli Architects)

3. Option 4B.3 (Core 35- up to 1,200 students)

- Provides permanent student capacity of 1,012 students with Core 35 facilities;
- New building on Bay Road and relocates staff and administration at the 'new' main entrance of the school; and
- A main entrance provides the school with improved and more secure administration block, a welcoming and DDA compliant entry point, EFSG compliance and enhanced play space design and utilisation.

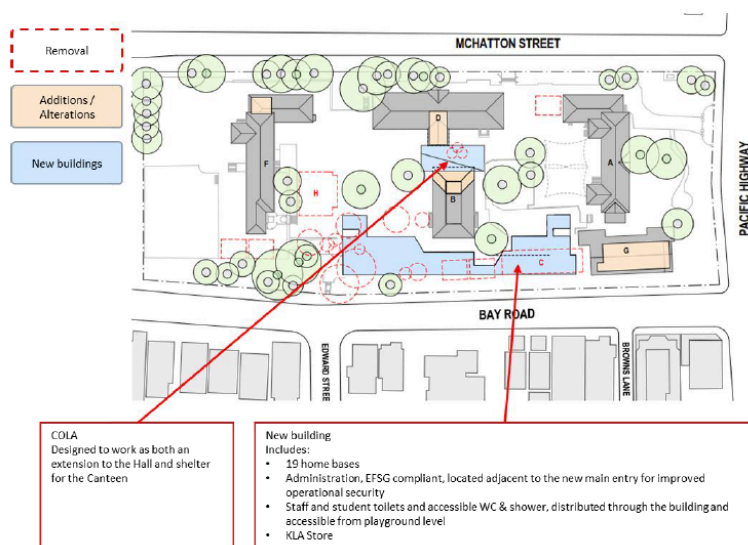


Figure 4: Extract of option 4B.3 masterplan (Source: DoE Business Case/Perumal Pedaovli Architects)

The Business Case assessed how well each option addressed the service need. Option 4B.3 was the preferred option and is hence adopted in this SSDA.

1.3.4. 'Do nothing' option

Should the project not be completed, the DoE will not be able to meet the demand of the student catchment. This is not a practical option, for all the reasons set out in the above sections of this EIS.

1.4. Ancillary Works

Under the ESEPP, certain minor works can be undertaken as exempt development. The following works are being undertaken separate to this SSDA and do not form part of the scope of works as they are classified as exempt development:

- Upgrade of the existing canteen in Building D;
- Refurbish amenities in Buildings A, D and F;
- Refurbish the staff lounge the Building F office to a staff lounge;
- Refurbish the existing out of school hours care to a bulk/garden store in Building A;
- Access ramps for persons with a disability; and
- Investigations and services relocation.

1.5. The SEARs

A request was made to the Minister for the SEARs pursuant to Clause 3, Schedule 2 of the EP&A Regulation. The SEARs were issued by the DPIE on 24 December 2020.

The following table outlines the SEARs and identifies where each respective requirement is addressed in this EIS and/or the appendix reference for the specialist consultant report that addresses the item in detail.

Table 2: SEARs

SEAR ITEM/DESCRIPTION	DOCUMENT REFERENCE
General Requirements	
The EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.	Section 9 of this EIS.
<p>The EIS must include:</p> <ul style="list-style-type: none"> an executive summary. a complete description of the development, including: <ul style="list-style-type: none"> the need for the development. justification for the development. suitability of the site. alternatives considered likely interactions between the development and existing, approved and proposed operations in the vicinity of the site. a description of any proposed building works. a description of existing and proposed operations, including: <ul style="list-style-type: none"> staff and student numbers, hours of operation, and details of any proposed before/after school care services and/or community use of school facilities. details of how the school would continue to operate during construction activities, including proposed site management and mitigation measures to ensure the safety of users. site survey plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries. a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development. plans, elevations and sections of the proposed development. cladding, window and floor details, including external materials. a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process). plans and details of any advertising/business identification signs to be installed, including size, location and finishes. any staging of the development. details of construction and decommissioning including timing. an estimate of the jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided. a detailed assessment of the key issues identified below, and any other significant issues identified in the risk assessment, including: <ul style="list-style-type: none"> a description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions. an assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and 	<p>Refer to Executive Summary. Section 1.3 of this EIS.</p> <p>Section 3 of this EIS.</p> <p>Appendix D.</p> <p>Appendix B.</p> <p>Appendix N.</p> <p>Appendix B.</p> <p>Section 3.11 of this EIS and Appendix V. Appendix E.</p> <p>Section 2 of this EIS.</p> <p>Section 7 of this EIS.</p>

SEAR ITEM/DESCRIPTION	DOCUMENT REFERENCE
<p>future developments. The assessment must consider any relevant legislation, policies and guidelines.</p> <ul style="list-style-type: none"> – consideration of the cumulative impacts due to all other developments in the vicinity (completed, underway or proposed). – identification of all proposed monitoring or required changes to existing monitoring programs. – measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment and triggers for each action. – details of alternative measures considered. <ul style="list-style-type: none"> • a consolidated summary of all the proposed environmental management and monitoring measures, identifying all commitments included in the EIS. • the reasons why the development should be approved and a detailed evaluation of the merits of the development, including consequences of not carrying out the development. 	<p>Section 7.21 of this EIS.</p> <p>Section 8 of this EIS.</p> <p>Section 9 and 10 of this EIS.</p>
CIV Report.	Appendix E.
Key Issues	
1. Statutory and Strategic Context	Section 4 and 5 of this EIS.
2. Built Form and Urban Design	Appendix B and Section 7.1.
3. Trees and Landscaping	Appendix C and M, and Section 7.2 of this EIS.
4. Environmental Amenity	Appendix B, C and U, and Section 7.3 of this EIS.
5. Transport and Accessibility	Appendix N and Section 7.4 of this EIS.
6. ESD	Appendix P and Section 7.5 of this EIS.
7. Heritage	Appendix T and Section 7.6 of this EIS.
8. Aboriginal Cultural Heritage	Appendix S and Section 7.7 of this EIS.
9. Social Impacts	Appendix L and Section 7.8 of this EIS.
10. Noise and Vibration	Appendix K and Section 7.9 of this EIS.
11. Biodiversity	Appendix F and Section 7.10 of this EIS.
12. Contributions	Section 5.13 and 7.11 of this

SEAR ITEM/DESCRIPTION	DOCUMENT REFERENCE
	EIS.
13. Staging	Appendix B and V, and Section 7.12 of this EIS.
14. Utilities	Appendix I and Section 7.13 of this EIS.
15. Stormwater Drainage	Appendix H and Section 7.14 of this EIS.
16. Flooding	Appendix H and Section 7.15 of this EIS.
17. Soil and Water	Appendix H and J and Section 7.16 of this EIS.
18. Waste	Appendix W and X, and Section 7.17 of this EIS.
19. Contamination	Appendix J and Section 7.18 of this EIS.
Plans and Documents	
Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate).	Appendix Z
Design Report	Appendix B
Geotechnical and Structural Report.	Appendix G and BB.
Accessibility Report.	Appendix Q.
Consultation	
<p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with:</p> <ul style="list-style-type: none"> the relevant Council. Government Architect NSW (through the NSW SDRP process). Transport for NSW. <p>Consultation should commence as soon as practicable to inform the scope of investigation and progression of the proposed development.</p> <p>The EIS must describe and evidence the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>	Appendix Y and Section 6 of this EIS.

1.6. Environmental Assessment Summary

A detailed environmental assessment is undertaken throughout this EIS, followed by an environmental risk assessment. All impacts by way of visual impact, amenity (internal and external), acoustics, vibration, traffic, parking, access, Aboriginal cultural heritage, archaeology, drainage, utilities, waste, social and the like are either negligible or minor and capable of being mitigated through the recommendation contained within the supporting specialist reports and the subject EIS. Subject to adopting those recommendations, the residual environment “risk” is considered to be minor. In fact, there are many very positive impacts as a result of the development, in terms of improved accessibility to the school, fit-for-purpose learning facilities, dual community and school use of the new hall and library, improved outdoor areas and opening of the central courtyard, a considerable social impact by virtue of providing upgraded facilities for the growing catchment and a positive environmental outcome by way of the ESD measures incorporated into the development.

2. SITE ANALYSIS

2.1. Regional Context

The site is situated in the North Sydney LGA, located 4.7km north of the Sydney CBD and 900 metres from the North Sydney CBD.

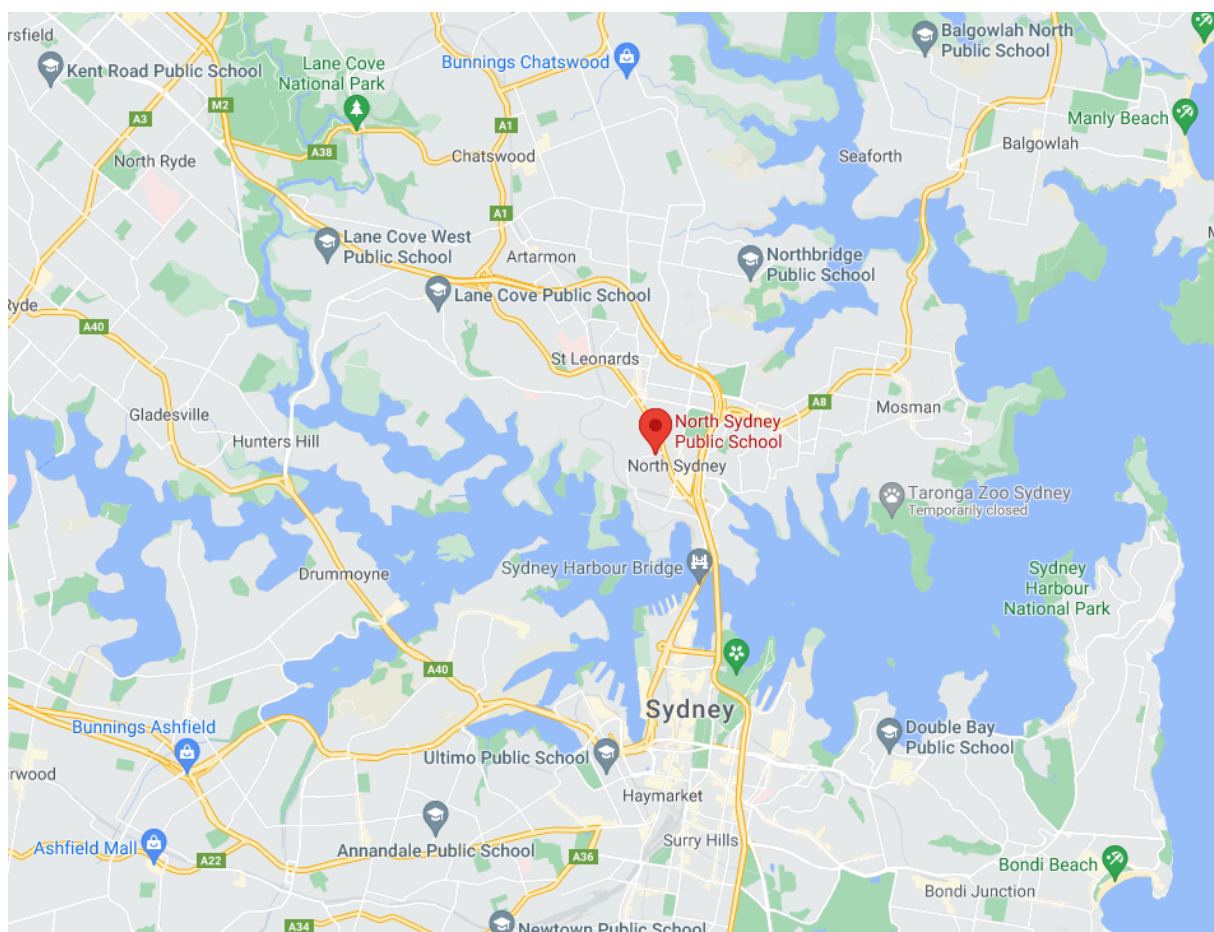


Figure 5: Regional context map, site identified with a red marker (Source: Google Maps)

2.2. Local Context

The site is located on the corner of the Pacific Highway and Bay Road, North Sydney. The Pacific Highway is a State Road, servicing the North Shore of Sydney and connects to the Pacific Motorway F3 Freeway at Wahroonga. In the last decade, North Sydney CBD has been the subject of substantial redevelopment, elevating North Sydney's role as a secondary CBD servicing Greater Sydney. The surrounding context is described as follows:

- The site is bounded by low density residential development to the north on McHatton Street and directly to the west. This residential area possesses cultural heritage attributes with several sites identified as local heritage items and part of various conservation areas;
- Immediately to the south of the site is a mix of low and medium density residential development;

Upgrades to North Sydney Public School

- The North Sydney CBD is located to the east of the site, mostly on the eastern side of the Pacific Highway and comprises high density commercial and residential towers with activated ground floor retail uses;
- The Pacific Highway is an arterial bus route servicing the north of Sydney;
- Waverton Train Station is located 650 metres west of the site and North Sydney Train Station is located 900 metres south of the site and adjacent to Greenwood Plaza;
- North Sydney is home to a substantial number of education establishments including the Australian Catholic University, The Shore School, Monte, Loretto Kirribilli, Wenona School, St Aloysius College, North Sydney Girls, North Sydney Boys, Marist Catholic College North Shore; and
- The locality falls from north-south to Sydney Harbour at the Milsons Point and Waverton peninsulas.

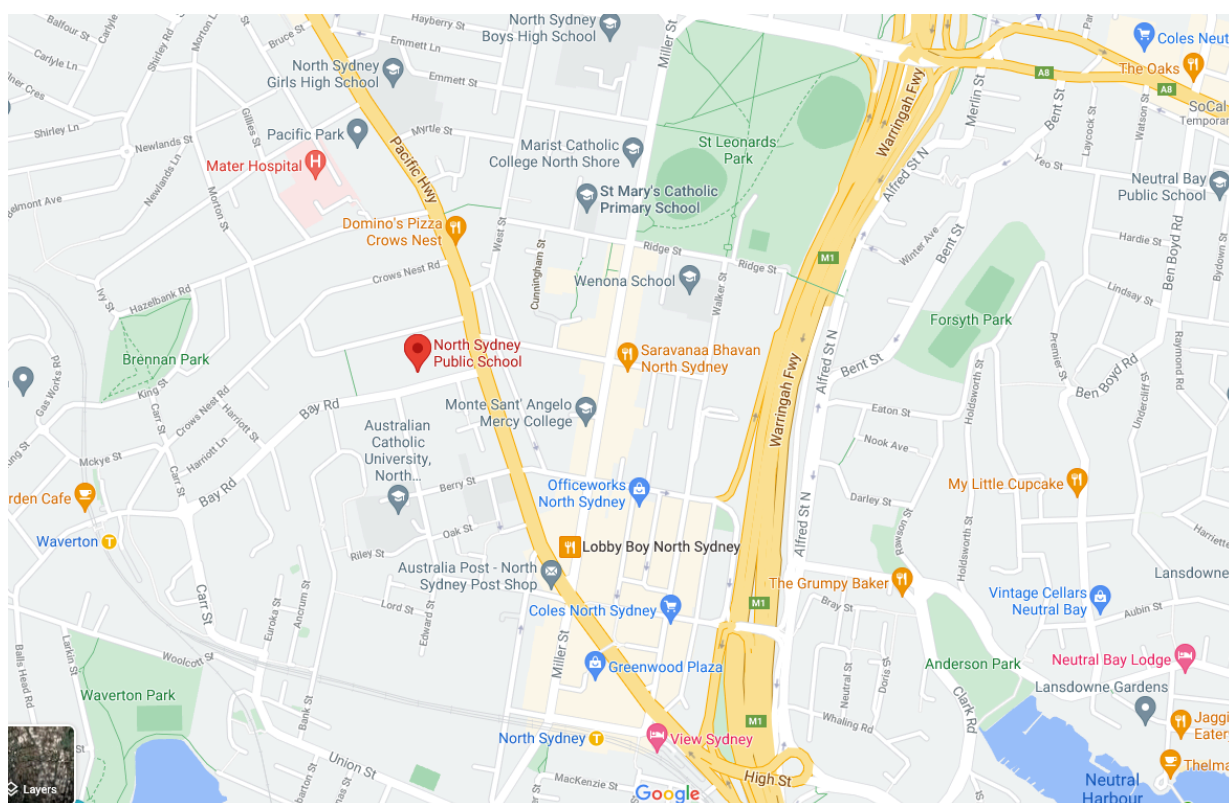


Figure 6: North Sydney locality map, CBD highlighted yellow, the school marked with a red marker (Source: Google Maps)

Photos of the area surrounding the site can be found on the following page.



Figure 7: Development on south-east corner of Bay Road, with North Sydney CBD in background (Source: July 2021, GYDE)



Figure 8: Medium and low density residential development on southern side of Bay Road (Source: July 2021, GYDE)



Figure 9: Medium density development on the southern side of Bay Road (Source: July 2021, GYDE)



Figure 10: North Sydney CBD and ACU to south of site (Source: July 2021, GYDE)



Figure 11: North Sydney CBD fronting Pacific Highway (Source: July 2021, GYDE)



Figure 12: Commercial development on eastern side of Pacific Highway opposite the site (Source: July 2021, GYDE)



Figure 13: Low density residential development to the north of the site on McHatton Street (Source: July 2021, GYDE)

2.3. Site Address and Legal Description

The site is legally described as Lot 1 in DP183591 and Lot 1 in DP184559, at 182 Pacific Highway, North Sydney. Refer to the below figures which provide an aerial view of the site and a cadastral site map.



Figure 14: Aerial photo of the site, site outlined in red (Source: July 2021, Near Maps)



Figure 15: Cadastre map, Lot 1 DP184559 and Lot 1 DP183591 outlined in blue and green respectively (Source: Six Maps)

2.4. Ownership

Both Lot 1 in DP184559 and Lot 1 in DP 183551 are owned by the DoE.

2.5. Existing Site Improvements

The site currently comprises the existing North Sydney Public School. The existing site structures are as follows:

- Buildings A, D and F containing learning spaces and student and staff amenities;
- Building B comprises the existing hall;
- Building G contains a library on the ground floor and three classrooms on the first floor;
- Building C contains learning spaces;
- Five demountable buildings which contain learning spaces on the southern boundary and the north-east of the site;
- Two netball/basketball courts in the south-west corner of the site;
- A bitumen staff carpark in the north-west of the site;
- Outdoor play areas adjacent to the east school boundary and the central part of the site and surrounding the existing hall; and
- Substantial planting and trees along the boundaries of the site

Refer to the following site plan prepared by Fulton Trotter.

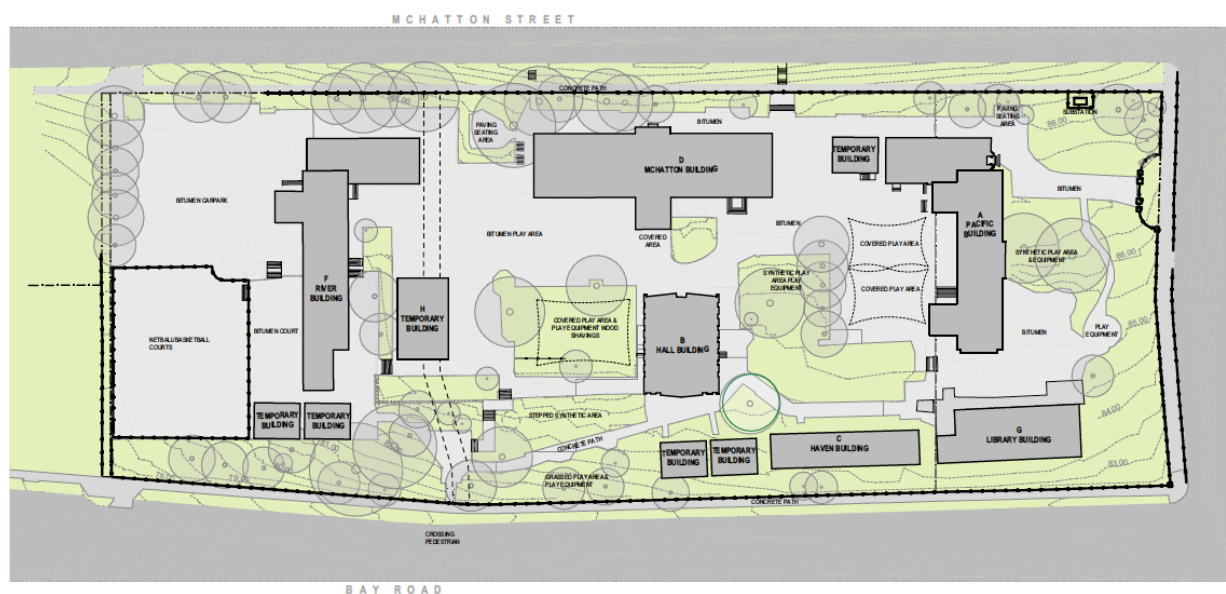


Figure 16: Extract of existing site plan (Source: Fulton Trotter)

The following photographs were taken by GYDE during a site visit on 1 July 2021 and depict the existing condition of the site.



Figure 17: Existing school sign at south-east of site and eastern elevation of Building G (Source: GYDE, July 2021)



Figure 18: Gates and fence of former Crows Nest House fronting the Pacific Highway (Source: GYDE, July 2021)



Figure 19: Eastern elevation of Building A and play area adjacent to the Pacific Highway frontage (Source: GYDE, July 2021)



Figure 20: Existing carpark in north-east corner of the site and views to the south-west (Source: GYDE, July 2021)



Figure 21: North elevation of existing demountable, Building H (Source: GYDE, July 2021)



Figure 22: Southern elevation of Building D (Source: GYDE, July 2021)



Figure 23: Eastern elevation of Building F (Source: GYDE, July 2021)



Figure 24: Existing playground to west of hall (Source: GYDE, July 2021)



Figure 25: North and west elevations of the existing hall, Building B
(Source: GYDE, July 2021)



Figure 26: Existing library on ground floor of Building G
(Source: GYDE, July 2021)



Figure 27: North elevation of Building G (Source: GYDE, July 2021)



Figure 28: Amenities on ground floor Building A (Source: GYDE, July 2021)



Figure 29: Play to north of Building C (Source: July 2021, GYDE)



Figure 30: Demountable in north-east of the site (Source: July 2021, GYDE)



Figure 31: Canteen on south elevation of Building D (Source: July 2021, GYDE)



Figure 32: Amenities ground floor Building D (Source: July 2021, GYDE)



Figure 33: Building C and two demountable to the rear and terraced play area adjacent to mid-southern boundary of site (Source: July 2021, GYDE)



Figure 34: Path and garden adjacent to mid-southern boundary (Source: July 2021, GYDE)



Figure 35: Two demountable to south of Building F (Source: July 2021, GYDE)



Figure 36: Heritage gate and fence from Bay Road (Source: July 2021, GYDE)



Figure 37: Basketball/netball courts in south-west of site (Source: July 2021, GYDE)



Figure 38: Amenities ground floor of building G facing west (Source: July 2021, GYDE)

2.6. Relevant Planning History

A review of Council's DA tracker and the Major Projects Website did not identify recent planning history for the site.

2.7. Topography

Project Surveyors has prepared a Survey Plan which can be found at Appendix D. An extract is below.

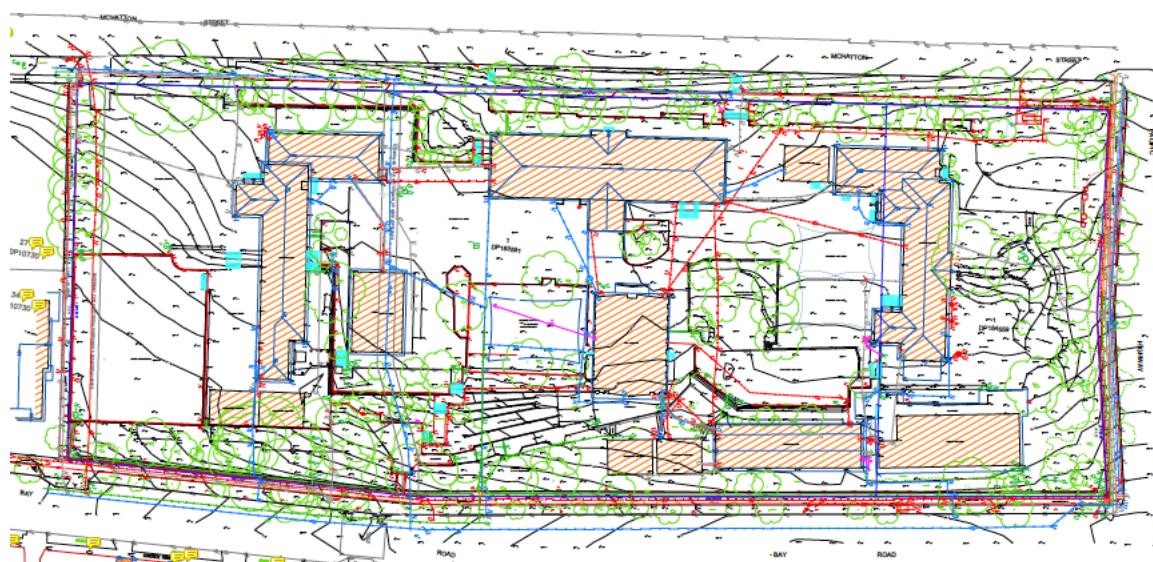


Figure 39: Extract of site survey (Source: Project Surveyors)

The plan demonstrates the site falls from north to south, with a steep fall from the south-west corner of the existing COLA to the existing entrance gate on Bay Road from RL86.70 to RL80.21 (5.49 metres). The site also falls from east

to west from RL86.61 at the Pacific Highway entrance to RL81.60 on the north-west corner of the basketball/netball court at the west boundary (5.01 metres). This pattern of topography is characteristic of the lower north shore, reflecting the decline toward Sydney Harbour, which is located further to the south of the site.

2.8. Access and Transport Context

The site currently comprises the following transport facilities:

- 20 on-site bicycle parking racks;
- 50 on-site car parking spaces for staff;
- A time restricted on-street drop-off and pick-up area along McHatton Street which can accommodate approximately 17 vehicles;
- A single bus bay on Bay Road along the school frontage (northern side) between the school crossing and Pacific Highway;
- Concrete footpath surrounding the school along McHatton Street, Pacific Highway and Bay Road;
- Shared path along the western boundary of the site, linking McHatton Street and Bay Road; and
- Existing school crossing on Bay Road.

Refer to the following figures for a visual representation of the existing transport context relevant to the site.

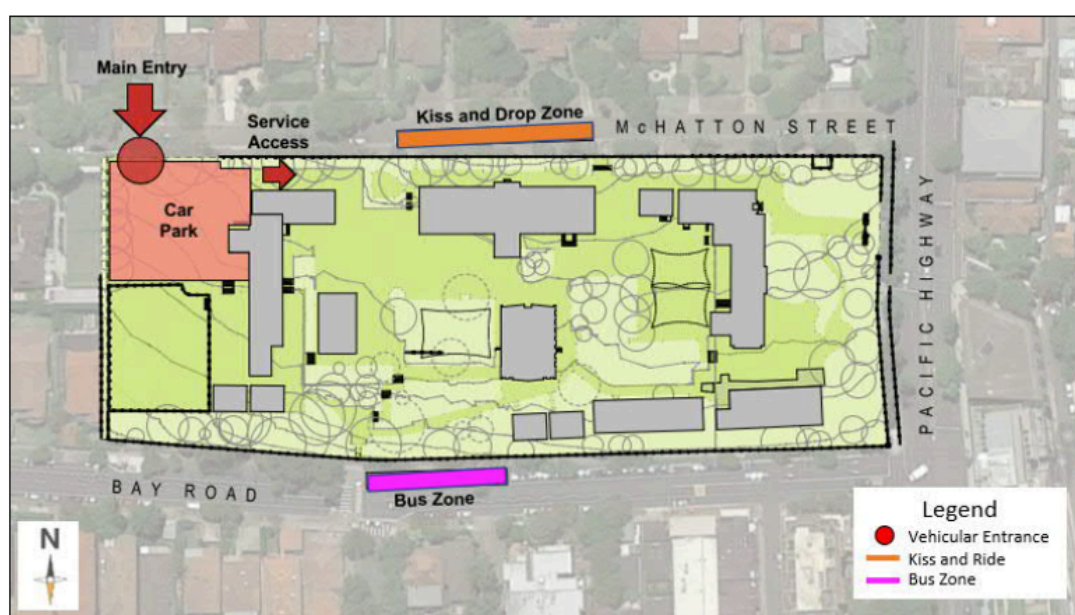


Figure 40: Existing transport facilities (Source: Ason Group)

Upgrades to North Sydney Public School



Figure 41: Existing parking restrictions (Source: Ason Group)

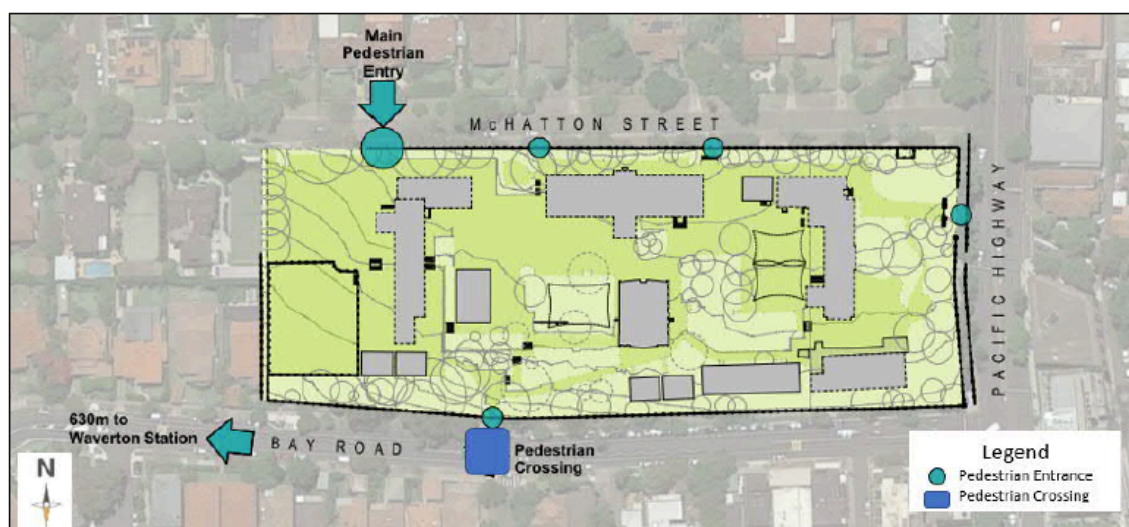


Figure 42: Existing pedestrian facilities (Source: Ason Group)

As noted earlier, the school is located 650 metres from Waverton Train Station and 950 metres from North Sydney Station. Both stations are serviced by the T1 North Shore and Western Line, T9 Northern Line and CCN Central Coast and Newcastle Line.

There is an existing bus stop on Bay Road which services the school and provides access for a single route during the AM peak, being route 265. In addition, a bus stop is located 100 metres north of the school on the Pacific Highway and is serviced by several bus route as shown below.

Upgrades to North Sydney Public School

ROUTE	DESCRIPTION	ROUTE	DESCRIPTION
115	Chatswood to City Bridge St via North Sydney	287	Ryde to Milsons Point via St Leonards & North Sydney
200	Gore Hill to Bondi Junction	290	Epping to City Erskine St via Macquarie University & North Sydney
252	Gladesville to City King Street Wharf via North Sydney	291	Epping to McMahon's Pt
254	Riverview to McMahon's Point	320	Gore Hill to Mascot
261	Lane Cove to City King Street Wharf via Longueville	N90	Hornsby to City Town Hall via Chatswood (Night Service)
286	Denistone East to Milsons Point via St Leonards & North Sydney	N91	Macquarie Park to Bondi Junction via City Town Hall (Night Service)

Figure 43: Existing bus routes serviced on the Pacific Highway stop to the north of the school (Source: Ason Group)

The school is situated within an established suburb adjacent to a developed business district, being North Sydney CBD. The below map depicts walking routes in proximity of the site.

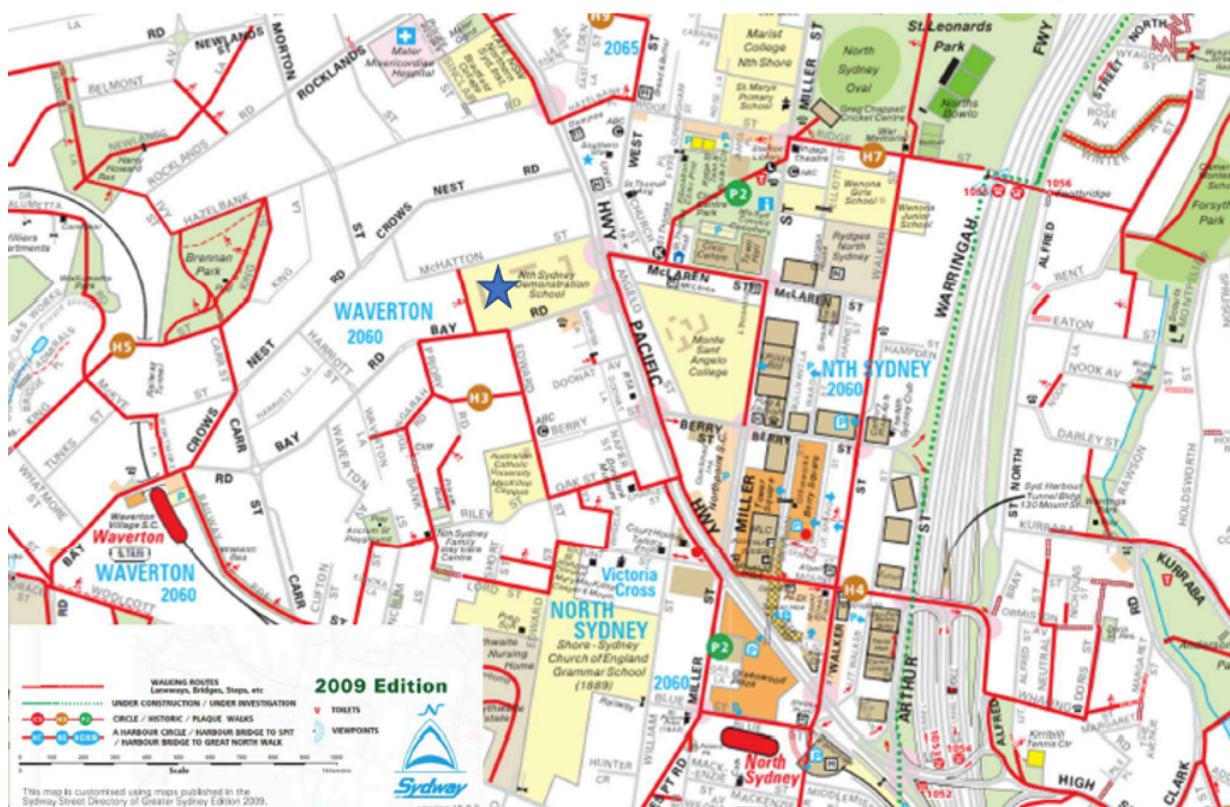


Figure 44: Walking routes in proximity of the site, site marked with a blue star (Source: North Sydney Council/Ason Group)

The existing bicycle network in proximity of the site is depicted below.



Figure 45: Existing cycle network surrounding the site (Source: North Sydney Council/Ason Group)

2.9. Heritage

2.9.1. Aboriginal Heritage and Aboriginal Archaeology

Austral Australia has prepared an Aboriginal Cultural Heritage Assessment and Aboriginal Archaeological Report (Appendix S). The site has not previously been subject of an Aboriginal assessment. Research into geology, geography and history identified that the site has been the subject of a wide range of construction activities and clearance, with no part of the site left untouched. It is likely that initial land clearing would have highly disturbed and removed any Aboriginal artefacts, with the subsequent level of disturbance evident on the site. Austral Australia noted there is very little likelihood that remains exist within the study area. The archaeological survey identified no Aboriginal objects or sites at the site and no areas of archaeological potential identified either, given the significant disturbance and development that has occurred over time.

Having regard to the Burra Charter significance, the site is considered to have:

- Little aesthetic significance values;
- Moderate historic significance values given the association with numerous bays located in the vicinity that are associated with Sydney Harbour; and
- Low research significance value as there is low potential for the presence of Aboriginal cultural heritage and if present, Aboriginal cultural material within the site would likely be in disturbed contexts, thus limiting the ability to interpret Aboriginal occupation of the site.

2.9.2. European Heritage

Curio Projects has prepared a Heritage Impact Statement (HIS) in Appendix T. The following is noted with respect to

heritage affection of the site:

- Pursuant to the NSLEP, the site contains the 'Gates and fence of former Crows Nest House' and is a locally significant heritage item (#10957);
- The site does not contain any heritage items registered on the State Heritage Register; and
- Under Section 170 of the *Heritage Act 1977*, government instrumentalities must keep a section 170 Heritage and Conservation Register which contains items under the control or ownership of the agency which are or could be listed as heritage items. The site is identified as having items of local heritage significance on the DoE Section 170 Heritage and Conservation Register- "North Sydney Public School- Buildings B00A, B00D and B00F, Gates and Period Fence" (s170 #50656252). This includes the 1931 McHatton Building (B00D), 1935 Pacific Building (B00A) and the 1935 River Building (B00F), as well as the former Crows Nest House fence and gate.

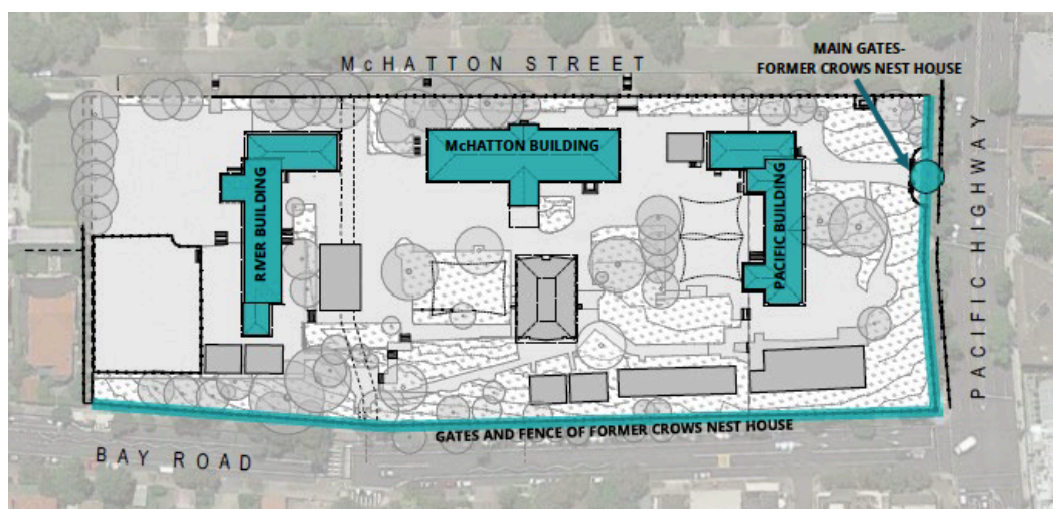


Figure 46: Plan identifying s170 heritage items on site (Source: Fulton Trotter)

The site is also in proximity of various local conservation areas and heritage items as shown below and outlined in Appendix T.



2.10. Trees

2.11. Flora and Fauna

- No threatened ecological communities have been previously mapped on the site and were not observed during the field survey;
- There are no BioNet records of flora and fauna species previously recorded at the site;
- No threatened fauna species were observed within the site during the survey. Two hollow-bearing trees were identified along the northern boundary of the site; however will not be impact by the proposal;
- Due to the limited amount of plant native vegetation present, the site does not contain sufficient foraging resources to sustain any threatened fauna species;
- No habitat was available for threatened flora species due to the high level of modification of vegetation within the site;

- The site does not contain any naturally occurring or remnant native vegetation. Planted native and exotic species present included larges tree; Grey Hum, White Cedar and small trees; Crimson Bottlebrush and Broad-leaved Paperbark;
- Vegetation on-site is part of a highly fragmented urbanised landscape; and
- The site is highly disturbed and does not contain water bodies or drainage structures that contribute to hydrological processes that sustain threatened species or ecological communities within or adjacent to the site.

Refer to the following figures.

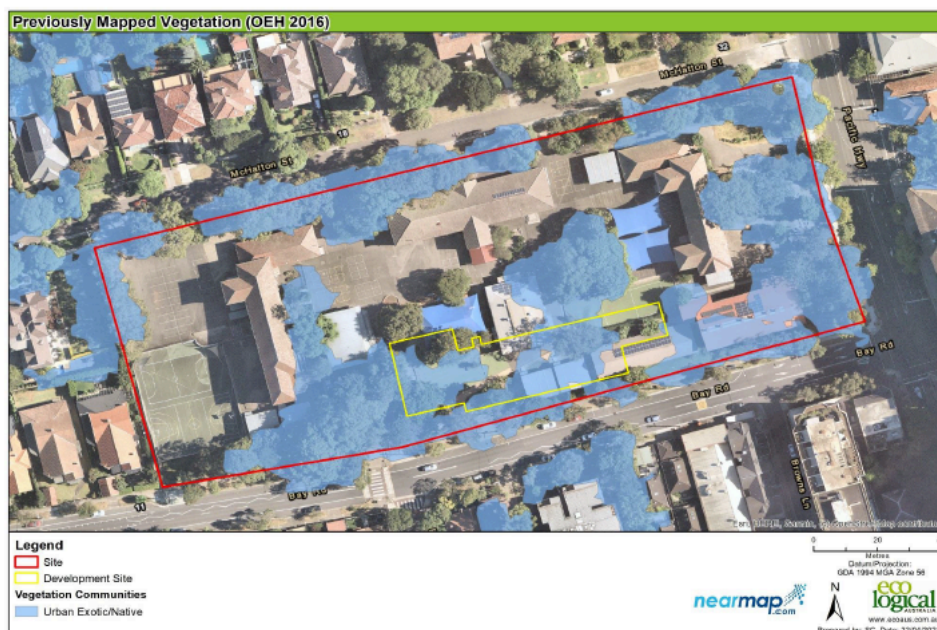


Figure 48: Extract of previously mapped vegetation (Source: OEH 2016/Eco Logical Australia)



Figure 49: Extract of validated vegetation and biodiversity values (Source: Eco Logical Australia)

2.12. Geotechnical and Soils

2.12.1. Geotechnical and Groundwater

Reference to the NSW Seamless Geology (March 2020) database indicates the site is underlain by Ashfield Shale of Wianamatta Group, characterised by dark-grey to black claystone-siltstone and fine sandstone siltstone laminate. Hawksbury Sandstone (which underlies Ashfield Shale) is a medium to very coarse grained quartz sandstone with very minor shale and laminate outcropping at lower elevation approximately 160 metres south of the site.

The preliminary geotechnical model for the site is illustrated below.

Unit	Origin	Description	Approximate Top of Unit (m AHD)	Range of Unit Thickness (m)	Rock Classification ¹
1	Fill	Concrete, asphalt, and sandy gravel	Surface	0.05 – 0.25	N/A
2	Residual Soil	CLAY, low to medium plasticity, trace fine to coarse gravel, stiff to very stiff	84.7 – 87.8	0.75 – 2.0	N/A
3A	Shale	Grey-brown, highly to moderately weathered, very low to low strength	83.0 – 85.8	1.9 – >3.3	Class V/IV
3B		Pale brown and grey, slightly weathered to fresh, medium strength	81.0 – 82.5	-	Class III
4	Sandstone	Pale grey with red bands, fine to medium grained, highly weathered to moderately weathered, very low to low strength	Unproven for this site, potentially near 78.5	--	Unproven though potentially Class V/IV based on nearby site

1. Classification based on Pells et al. (2019) Classification of Sandstone and Shales in the Sydney Region: A Forty Year Review.

Figure 50: Extract of preliminary geotechnical model (Source: Tetra Tech Coffey)

Reference to the NSW Water All Groundwater Map (2021) indicates there are no registered groundwater bores within 500 metres of the site.

Refer to the Geotechnical Desktop Study prepared by Tetra Tech Coffey (Appendix G).

2.12.2. Soils

The site is part of the geological region of the Sydney Basin. The Sydney Basin is a north-south trending basin, containing flat-lying Permian Triassic deposits. The Sydney Basin is mainly formed of sandstones and shale deposits. The Blacktown soil landscape is the applicable soil landscape for the site. As shown in the following figure, the site is adjacent to the Gymea soil landscape.

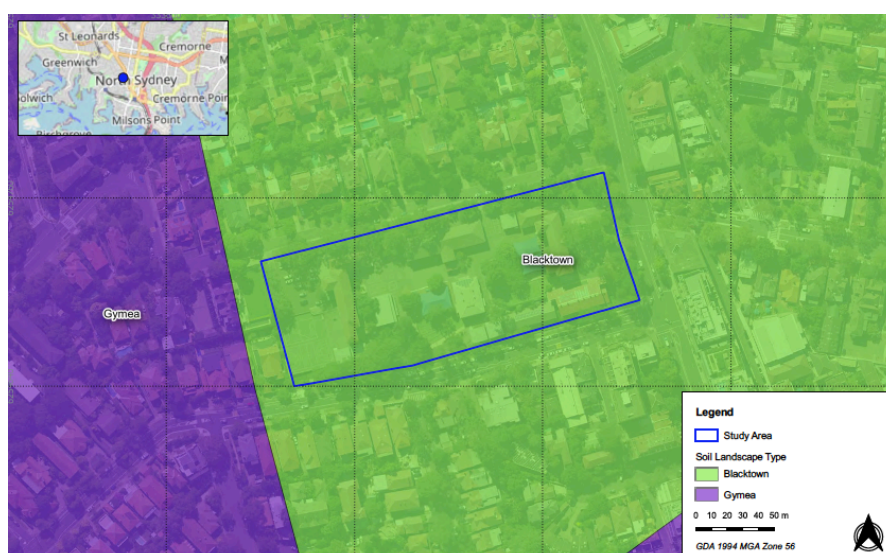


Figure 51: Extract of soil landscape applicable to the site (Source: Austral Australia)

2.13. Contamination

Tetra Tech Coffey has prepared a Preliminary Site Investigation which can be found at Appendix J. Tetra Tech Coffey has previously conducted contamination investigations for the site. They note:

- *“The site has functioned as a school dating back to the early 1930s and the buildings undergoing development were built in the 1930s and 1950s as indicated in aerial images and previous reports;*
- *Uncontrolled fill materials have been identified within the site due to the stepped topography. Localised filling of a historic air-raid bunker may also be present;*
- *Soil samples analysed from limited investigations completed within the site identified hydrocarbon compounds in fill which could pose an unacceptable health risk to the current/future site users and workers conducting future development and/or subsurface maintenance works; and*
- *Potential asbestos containing materials and lead paint are suspected within some structures within the development area. Weathering such as materials typically result in the deposition of these materials in shallow surface soils surrounding each structure. Whilst it is noted that asbestos was not identified during previous investigations or recent walkers, this does not conclude the absence of such materials within shallow soils.”*

Any potential impacts associated with contamination are addressed in Section 7.18 of this EIS.

2.14. Salinity and Acid Sulfate Soils

2.14.1. Salinity

Tetra Tech Coffey confirm in Appendix J there is no information at present to suggest that soil salinity is a risk for the site or the surrounds.

2.14.2. Acid Sulfate Soils

Tetra Tech Coffey confirm in Appendix J that the site has no known occurrences of acid sulfate soils, being consistent with the geology of the site.

2.15. Flooding

As confirmed in Council's Section 10.7 Planning Certificate (Appendix Z), the site is not flood prone land. In addition, Aurecon has prepared a Stormwater Management Plan (SMP) in Appendix H which further considers if the site is flood affected. The results of the TURFLOW model prepared by WMA Water on behalf of Council in 2017 indicate the site is not impacted by creek flooding. Notwithstanding the absence of creek flooding, the school informed Aurecon that the heritage wall is subject to overtopping and discharging onto Bay Road. The proposed stormwater management plan mitigates this.



Figure 52: Extract of flood awareness map in WMA Water Flood Study for Council (Source: Aurecon)

2.16. Drainage

The site falls at an approximate, average gradient of 7.8%. The high point in the north-east corner is at RL86.96 metres grading down to the south-west to the existing heritage fence at RL80.43 metres. The majority of the site runoff

generated currently drains via the existing infrastructure through the site and discharges to the concrete channel located to the south of the site.

2.17. Services and Utilities

Utility Services

The supply authority for the school is Ausgrid. The existing Ausgrid HV network supplies the school from a substation (S.79467) located at the junction between McHatton Street and the Pacific Highway. The substation is a 600kVA Kiosk with a non-firming rating of 920amps. It provides supply to the following low voltage distributors:

- Distributor 1 is a spare panel (fuse-way rated to 400amps with no fuses installed).
- Distributor 2 supplies McHatton Street overhead network (fuse-way rated to 400amps with no fuses installed) – normally open at substation.
- Distributor 3 supplies the school (fuse-way rated at 800amps with a 800amp fuse installed) – an MDI reading on this distributor indicates a load of 292amps.



Figure 53: Extract of Ausgrid network plan (Source: LCI)

As the substation S.79467 supplies no other customers, the full 800amp supply is available for the proposed upgrade.

Telecommunication Carrier Services

The site has three existing comms lead-ins: two from McHatton Street and one from Bay Road. From the Dial Before you Dig Enquiry undertaken by LCI, it is not clear who the provider from McHatton Street is, however, Bay Road provider is Ucomm. Refer to the below image.

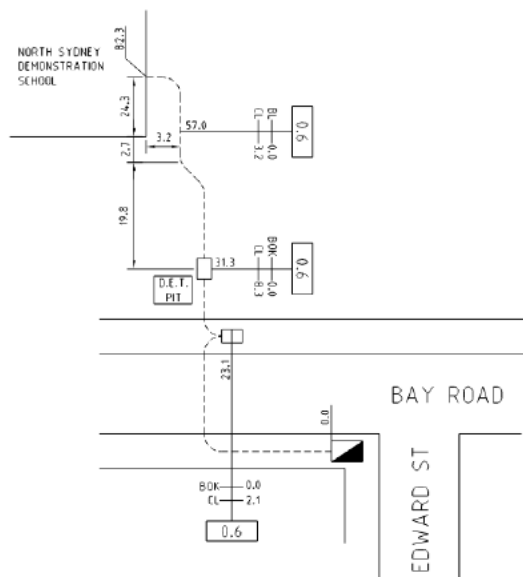


Figure 54: Existing incoming comms (Source: LCI)

Water, Gas and Sewer Utility Services

Portable Cold Water

There are three existing portable cold water connections to the school from the DN200 CICL main located on Bay Road. All three connections are sized at 50mm and reticulate through Authority Cold Water meters to serve sanitary fixtures throughout the school. There is no water main connection to the site to serve fire services (hydrant and sprinklers). There is an existing easement traversing the mid-line of the school for the Authority Water Main sized at DN500 CICL.

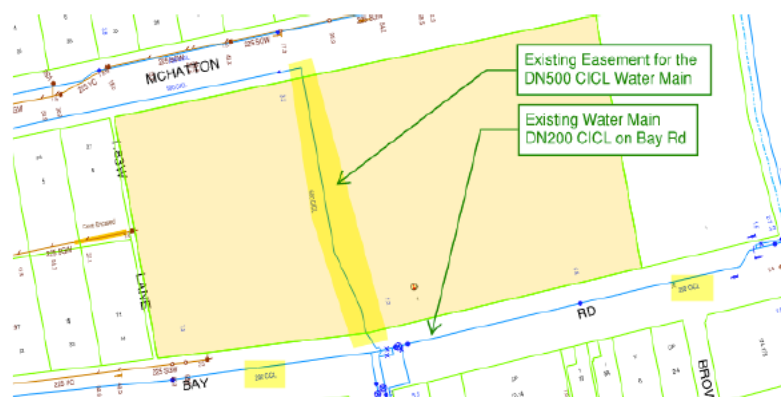


Figure 55: Extract of Sydney Water DBYD Plan showing easement and main (Source: LCI)



Figure 56: Extract site survey identifying meters (Source: LCI)

Gas Services

There is one existing gas connection to the school from DN32 Nylon @ 210kPa gas main located on Bay Road. The gas service reticulates throughout the school to serve the old gas space heaters (LB90 Gas Heaters) and hot plates in the canteen.

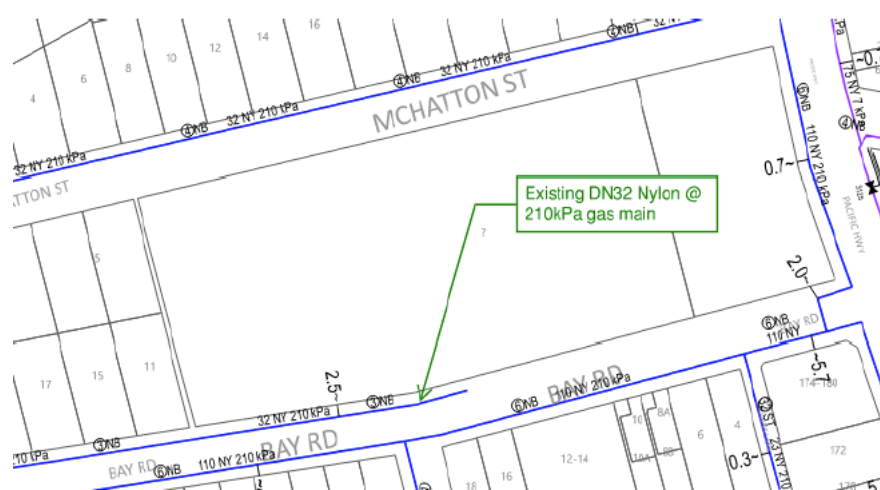


Figure 57: Extract Jemena DBYD plan (Source: LCI)

Sanitary Drainage Services

There are two existing sanitary drainage connections to the school. One is located on the DN225 VC pipe on the corner of Bay Road and Pacific Highway and the other on the DN225 SGW pipe on Bay Road. Both sanitary drainage connections reticulate throughout the school to serve sanitary fixtures.

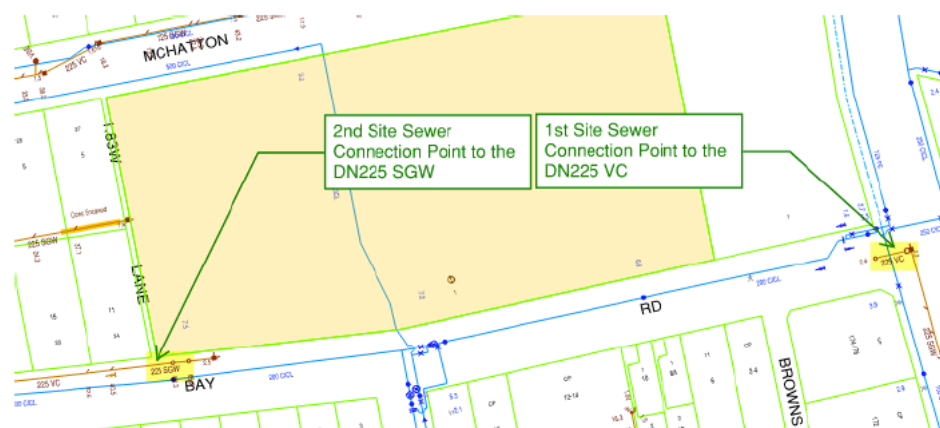


Figure 58: Sydney Water sewer DBYD plan (Source: LCI)

3. DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1. Overview

- Demolition of the existing hall (Building B), haven building (Building C) and 6 temporary buildings;
- Construction of a three-storey building comprising:
 - staff administration rooms;
 - 16 homebases
 - a library;
 - a hall;
 - out of school hours care facilities;
 - a covered outdoor learning area;
 - bicycle parking and end of trip facilities for staff; and
 - services, amenities and access.
- New entry gate and forecourt from Bay Road;
- Internal refurbishment of the ground floor of Building G from an existing library to 3 homebases;
- An increase in student numbers from 869 to 1,012;
- An increase in staff numbers from 80 to 87; and
- Associated tree removal, landscaping and excavation to facilitate the above works.

The proposal maintains:

- The gates and fence of former Crows Nest House including the entrance from Pacific Highway and Bay Road;
- The existing gate along McHatton Street;
- The outdoor play area to the east of Building A;
- Existing covered outdoor learning area adjacent to Building A;
- The basketball courts and staff carpark in the western part of the site;
- The significant tree planting on all school boundaries;
- Buildings A, D and F noting minor internal refurbishments are being undertaken outside of the SSDA scope of work (exempt development) to improve student amenities and canteen; and
- Building G, with the exception of internal refurbishment of the ground floor as a part of the subject SSDA.

Refer to the proposed site plan in the following figure.

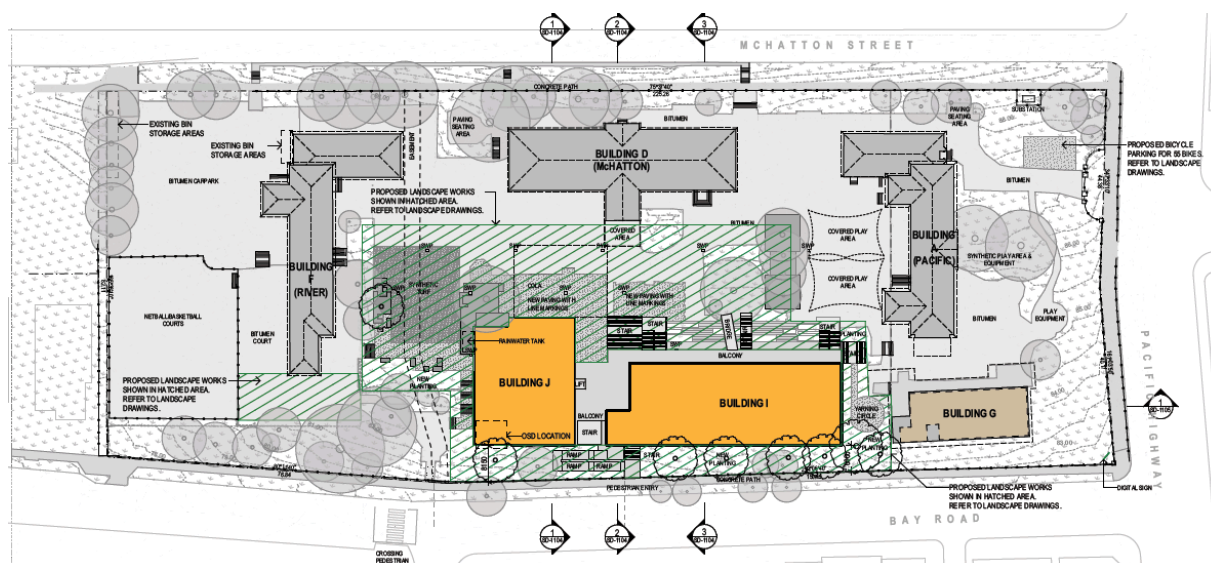


Figure 59: Extract of site plan (Source: Fulton Trotter)

The following table provides an overview of the key components of the upgrades.

Table 3: Summary of proposal description

PROPOSAL ELEMENT	BRIEF DESCRIPTION
Site preparation	<p>Aurecon has calculated proposed cut/fill as follows:</p> <ul style="list-style-type: none"> Volume of cut: - 3,707.436m³ Volume of fill: 307.837m³ Balance: 3,399.598m³
Built form	<p>Construction of:</p> <ul style="list-style-type: none"> Building J which comprises plant, storerooms, hall and stage, OSHC office, amenities; Building I which comprises administration, homebases and amenities; and New accessible access point from Bay Road.
Maximum height	<p>The new buildings are generally lower than the 8.5 NSLEP height standard. Given the fall of the site in the location of the proposed buildings, the following variations are proposed:</p> <ul style="list-style-type: none"> At southern edge of the Building J roof by 2.6 metres (RL94,100); At south-west corner of Building I by 3.4 metres (RL95,200); and At southern edge of the Building I by 3.0 metres (RL95,200).
Site uses	<p>This SSDA seeks consent for upgrades to the existing educational establishment, being a primary school. No change of use is proposed.</p>
Access	<p>Existing pedestrian access points from McHatton Street, Pacific Highway and Bay Road remain unchanged. An additional DDA compliant access point is proposed from Bay Road in between proposed Buildings J and I.</p>

PROPOSAL ELEMENT	BRIEF DESCRIPTION
Car parking	Remains unchanged.
Public domain and landscaping	<p>The landscape and public domain scheme involves:</p> <ul style="list-style-type: none"> • Creation of a new legible, DDA compliant entrance from Bay Road including block seating elements of varied sizes; • COLA connected to the proposed hall; • Retention and protection of T16 which is identified as significant; • New synthetic turf play area with new playground equipment in between Building F and I; • Treatment of existing bitumen to the north of Building I and J with applied acrylic finish; • Terraced connection between lower ground level and existing synthetic turf play area to the north of Building J; • Yarning circle with tree replacement planting in between Building I and G; • New pedestrian connection from Building I to G.
Jobs	<p>Construction</p> <p>134 construction jobs have been estimated for the project.</p> <p>Operation</p> <p>Current staff: 80</p> <p>Proposed staff: 87, including 6 full time equivalent and 1 school administration/support staff.</p>
Construction hours	<p>Monday to Friday: 7:00am to 5.00pm</p> <p>Saturday: 8:00am to 1:00pm</p> <p>Sunday and Public Holidays: No work</p> <p>It is noted that no construction deliveries between 7:30am and 9:00am and 1:30pm and 3:00pm on school days will be permitted.</p>
Out of hours school facility	Unchanged from existing operation.

3.2. Design Intent

The proposed development involves the creation of two new buildings along the existing site's Bay Road frontage, creating a new street presence for the school. A primary driver of the scheme was the provision of an additional access point which is DDA compliant, as the school currently lacks a compliant entry point. In doing so, Fulton Trotter has designed the new buildings to connect into the existing topography and platforms that exist on the site. The new entry point provides direct access to the administration area of the school which is a DoE operational requirement. In addition, the proposal involves upgrades to Building G to provide new homebases, as the library will be relocated from that building to Building I. Architecturally, the design of the new buildings is contemporary in nature, but takes cues from the existing materiality and heritage qualities of Buildings A, D and F, which are mostly characterised by brickwork and sandstone. The volume of the hall is clad in modern compressed fibre cement (CFC) cladding to create a contemporary finish in contrast to the materials referencing the heritage of the site. The hall and library are proposed for ancillary

public use outside of school hours. Due to the existing site planning restrictions (i.e. the stand of the mature angophora trees and in-ground water services easement adjacent to the Bay Road gates), it was not possible to facilitate the new DDA entry using the existing gates on the site; hence the new entry is proposed. The design is informed by initial Aboriginal consultation and focuses on honouring country and nature. The design responds to the immediate surrounding environment including traffic and acoustic impacts. The design intent is to renew the existing school and provide for state of the art facilities to align with the EFSG.

3.3. Built Form and Urban Design

3.3.1. External materials and finishes

The proposed materials and finishes for the upgrades comprise a mix of contrasting dark and light earthy tones, as noted in the section above, drawing cues from the materiality/colour scheme of the existing heritage buildings at the site and ensuring the resultant built form outcome is sympathetic in the context of the surrounding landscape. The extracts from the architectural plans below demonstrate the approach to materiality for the proposed new buildings.

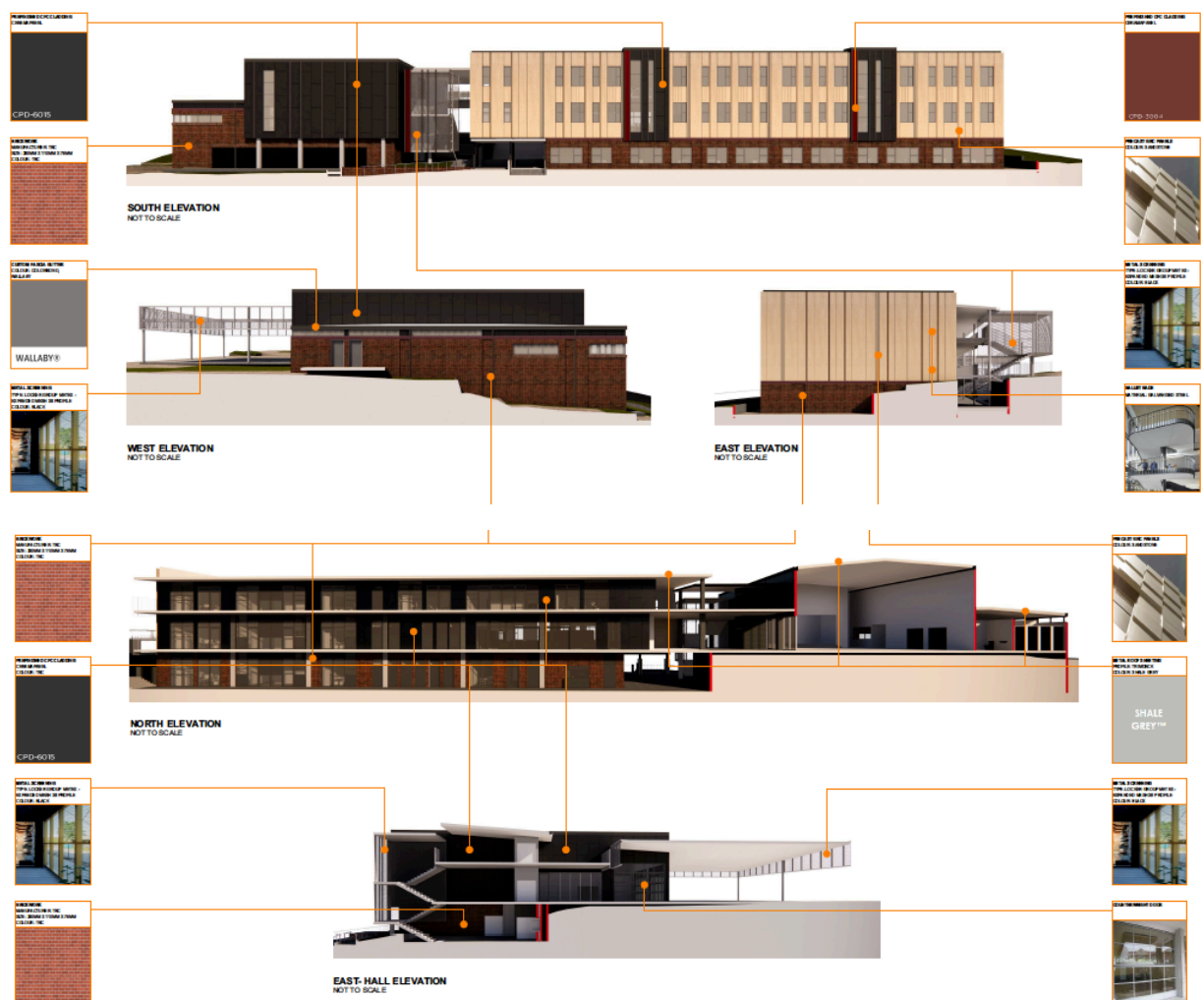


Figure 60: Extract of materials and finishes (Source: Fulton Trotter)

In response to the heritage qualities of the site, the base of the proposed building is clad with face brickwork and the upper levels are proposed to be finished with panelised façade system of glass reinforced concrete in a sandstone colour. The articulation of the panelling is structured to reflect the vertical nature of the existing windows as well as the vertical features found in Building A (Pacific Building), see below.

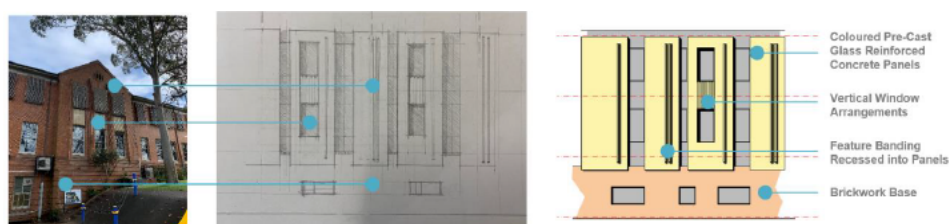


Figure 61: Extract of materiality and facade strategy (Source: Fulton Trotter)

As mentioned above, the hall is proposed in modern CFC cladding, which is a contemporary finish, contrasting with the heritage elements on the site. The new buildings also feature red panelling to break up the overall massing of the façade and to draw reference to the red panelling and doors found across the site.

3.3.2. Physical layout and internal design

The layout of the proposed buildings is illustrated in the following figures.

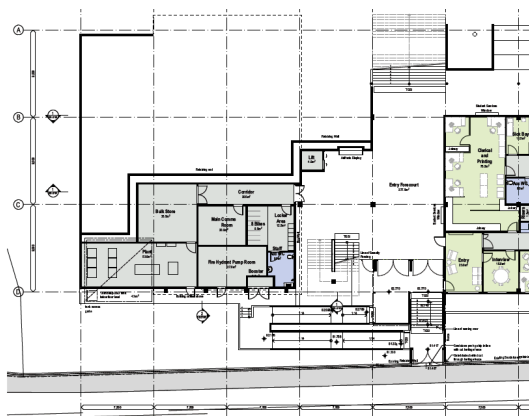


Figure 62: Extract Building J level 1 floor plan (Source: Fulton Trotter)



Figure 63: Extract Building I level 1 floor plan (Source: Fulton Trotter)

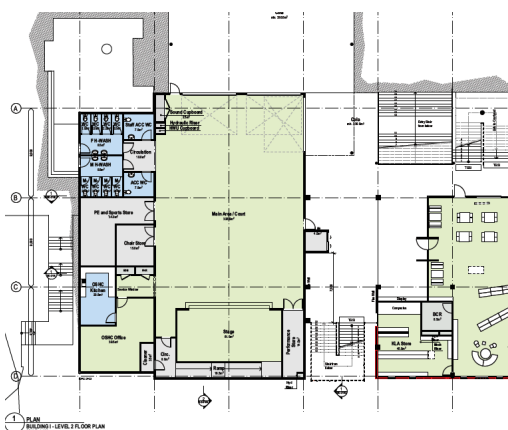


Figure 64: Building J level 2 floor plan (Source: Fulton Trotter)

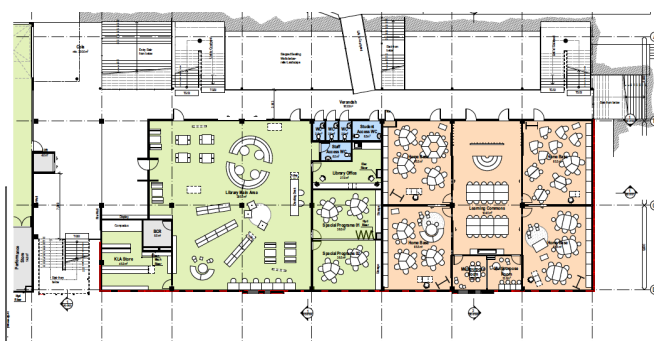


Figure 65: Building I level 2 floor plan (Source: Fulton Trotter)

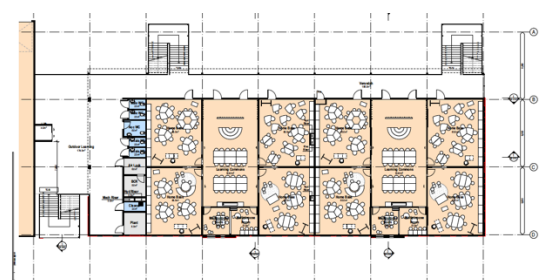


Figure 66: Building I level 3 floor plan (Source: Fulton Trotter)

Fulton Trotter has sought to create a double height space within the hall, which is accessible from Bay Road via the proposed DDA compliant entrance. The hall connects onto a new COLA. The placement of the entrance in between the two buildings aids in breaking up the massing of the built form when viewed from the streetscape and creates a clear line of sight to the community facilities (hall and library) and passive surveillance of the street. The design facilitates an opening of the school's central courtyard which is currently divided with the existing hall (Building B), resulting in an optimisation of play space.

The design seeks to enhance the school to a high-quality Core-35 school (up to 1,200 students). The provision of 3.6 metre and 4.2 metre floor to ceiling heights maximise solar access and ventilation opportunities. The grouping of homebases is practical in that year groups may be classed within proximity of one another.

3.3.3. Building Code of Australia

Philip Chun has reviewed the proposed upgrades in the context of the NCC Building Code of Australia (BCA) 2019-Amendment One, DoE standards and the design documentation accompanying this EIS. The assessment is documented in the BCA Report in Appendix R. The proposed buildings are classified as class 9b (assembly building) which rises three storeys, is type A construction and has an effective height less than 25 metres. Philip Chun confirms the proposal is capable of complying with the relevant provisions of the BCA and Australian Standards, subject of addressing detailed design matters prior to issue of a Crown Design Verification Certificate (CDVC).

3.3.4. Accessibility

Philip Chun has undertaken an accessibility assessment in accordance with the Disability (Access to Premises) Standard 2020 and the relevant Australian Standards. The proposal is capable of achieving compliance prior to issue of a CDVC. Refer to Appendix Q for further detail.

3.3.5. Signage

This SSDA removes the existing sign on the corner of Bay Road and Pacific Highway and, seeks consent for three signs:

- A school identification sign stating *North Sydney Public School* on the southern edge of the awning above the new Bay Road pedestrian entrance;
- A school identification sign which contains the school logo and words *North Sydney Demonstration School* on the southern façade of Building I; and
- A digital school identification sign on the corner of Bay Road and Pacific Highway.

See below images.



Figure 67: Perspective showing proposed signs (Source: Fulton Trotter)

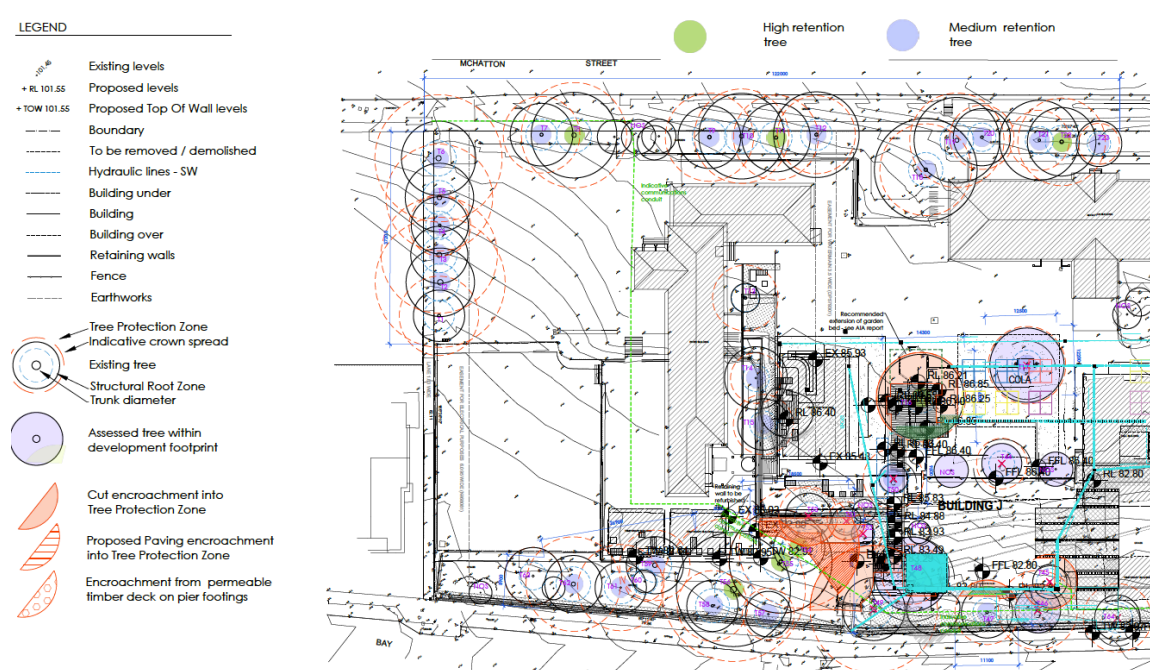


Figure 68: Streetscape elevation illustrating proposed signs (Source: Fulton Trotter)

The proposed sign on the awning above the proposed new entrance from Bay Road is a digital sign with non-flashing illumination at lux level Refer to the Architectural Plans prepared by Fulton Trotter for signage details.

3.4. Tree Removal

This SSDA seeks consent to remove 16 trees being trees 17, 36, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 64, 65 and 66. Refer to the below tree assessment plan prepared by Arboreport (Appendix M).





- 17- moderate
- 36- low to moderate
- 42- low
- 43- moderate to high
- 44- low to moderate
- 45- low to moderate
- 46- low
- 48- low to moderate
- 49- low
- 50- moderate
- 51- low
- 52- low
- 53- low
- 64- low
- 65- low
- 66- low

3.5. Landscaping and Sports Facilities

3.5.1. Landscape Design Intent

Taylor Brammer has prepared a landscape design for the proposed upgrades. The landscape design is underpinned by several design principles including:

- Opening up the central courtyard to optimise outlook and the quality and function of play space;
- Creating a variety of active and recreational play areas, and outdoor educational spaces;
- Maintaining the tree canopy cover and perimeter planting on the site and incorporating additional tree planting to complement that currently present; and
- Retention of T16 which is identified as a significant tree.

The landscape masterplan is extracted below.



Figure 70: Extract of landscape masterplan (Source: Taylor Brammer)

The landscape design complements the existing landscape areas on the site and generally improves pedestrian connectivity.

3.5.2. Outdoor areas

The landscape design provides a variety of outdoor play areas which serve recreational, education and social purposes:

- New synthetic turf play area with new block seating and planting in between Buildings F and J;
- Raised platform underneath T16 to be retained and integrated with planting and seating to encourage gathering;
- New paving with line markings to facilitate activities. This area benefits from the COLA for enhanced utilisation and protection from the elements;
- New synthetic turf play area to the north of Building I with sandstone seating walls to delineate the space and synthetic turf on the ground cover;

- Creation of a yarning circle with reclaimed timber to the south-east of Building I; and
- Various walkways, terraces and stairs connecting the existing and proposed outdoor areas.

3.5.3. Sports facilities

The existing basketball courts in the south-west corner of the site remain unchanged as a result of the proposed upgrades. The proposal involves the provision of a new hall connecting to a COLA. The hall may be used on occasions for sport activities and ancillary public use out of hours, as required.

3.6. Site Access and Parking

3.6.1. Vehicular access and staff parking

Access to the staff car park will remain unchanged, with access via a double width crossover to/from McHatton Street at the north-west corner of the site. The carpark currently accommodates 50 vehicles including two accessible spaces. Parking allocation is determined by the school administration. The proposed upgrades involve no change to this existing arrangement. Refer to the below figure.



Figure 71: Access to staff car park (Source: Ason Group)

3.6.2. Student drop-off and pick-up arrangements

Drop-off and pick-up currently occurs on McHatton Street only. The proposal involves the provision of an additional drop-off and pick-up area on Bay Road. Given the provision of an additional DDA compliant access point from Bay Road, connecting to the administration area, the provision of a new pick zone is a practical outcome. The proposed designated Bay Road drop-off and pick-up, including in front of 11 Bay Road, would effectively replace the existing 1/4P parking restrictions during school pick-up and drop-off periods in this location. It is noted that the majority of parking restrictions surrounding the school at peak pick-up and drop-off times are subject of short-term restrictions, i.e. 15 minutes or less. As indicated on the Indicative Parking Restrictions Plan prepared by Ason Group (Appendix N), the drop-off and pick-up locations, shown in the below figure, will be “No Parking” between specified operational hours

during the day. This means parents must remain with 3 metres from their vehicle and are unable to stay for longer than 2 minutes.



Figure 72: Extract of proposed drop-off and pick-up (Source: Ason Group)



Figure 73: Extract of proposed car parking restrictions (Source: Ason Group)

Upgrades to North Sydney Public School

The proposed changes to the parking restriction will require Council consent. Council advised in the TWG consultation they are not opposed to this change.

3.6.3. Pedestrian access

As described in Section 2.8 of this EIS, the existing pedestrian access points to the school remain unchanged with the proposal. The upgrades include a new pedestrian access point from Bay Road, which will provide equitable access to the school grounds. Refer to the following elevation and perspective for a visual representation of the Bay Road elevation and the corresponding ramped entrance.

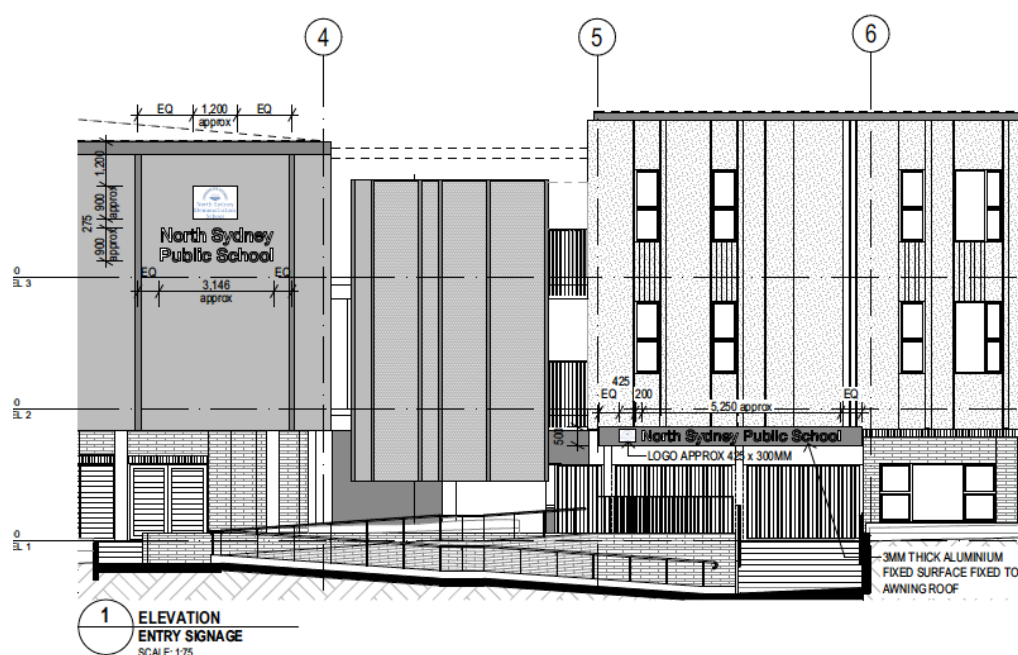


Figure 74: Extract of new entry from Bay Road (Source: Fulton Trotter)



Figure 75: Perspective of new entry from Bay Road (Source: Fulton Trotter)

3.6.4. Public transport

Existing public transport service availability in proximity of the site remains unchanged. Refer to Section 2.8 of this EIS and Appendix N for detail.

3.6.5. Bicycle parking

The school currently has 20 bicycle spaces adjacent to the eastern façade of Building F. The proposal removes these spaces and provides additional spaces in the north-west corner of the site (55 spaces) and in end of trip facilities on level 1 of Building J (8 spaces). Refer to the following figure.

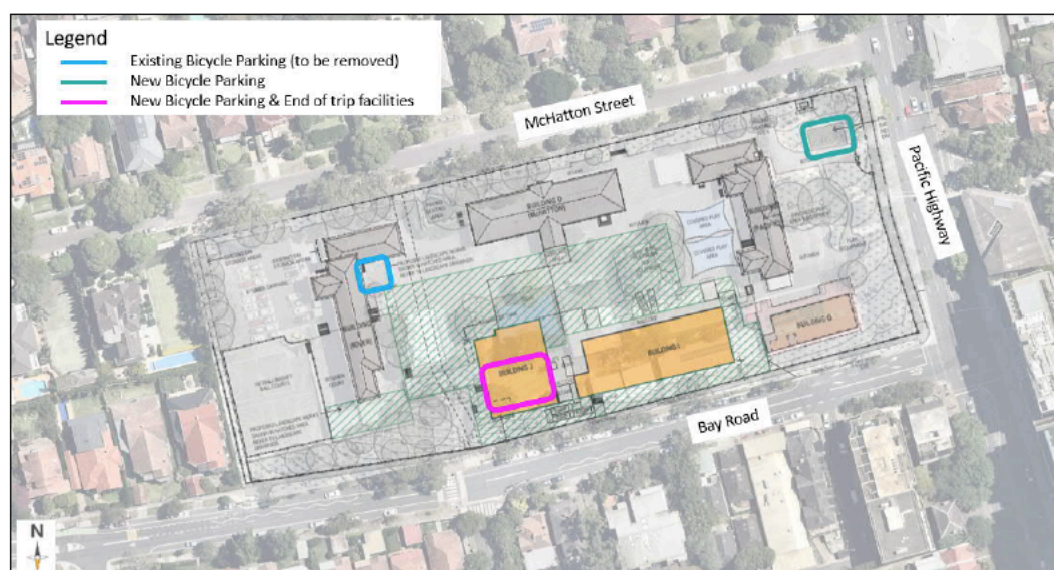


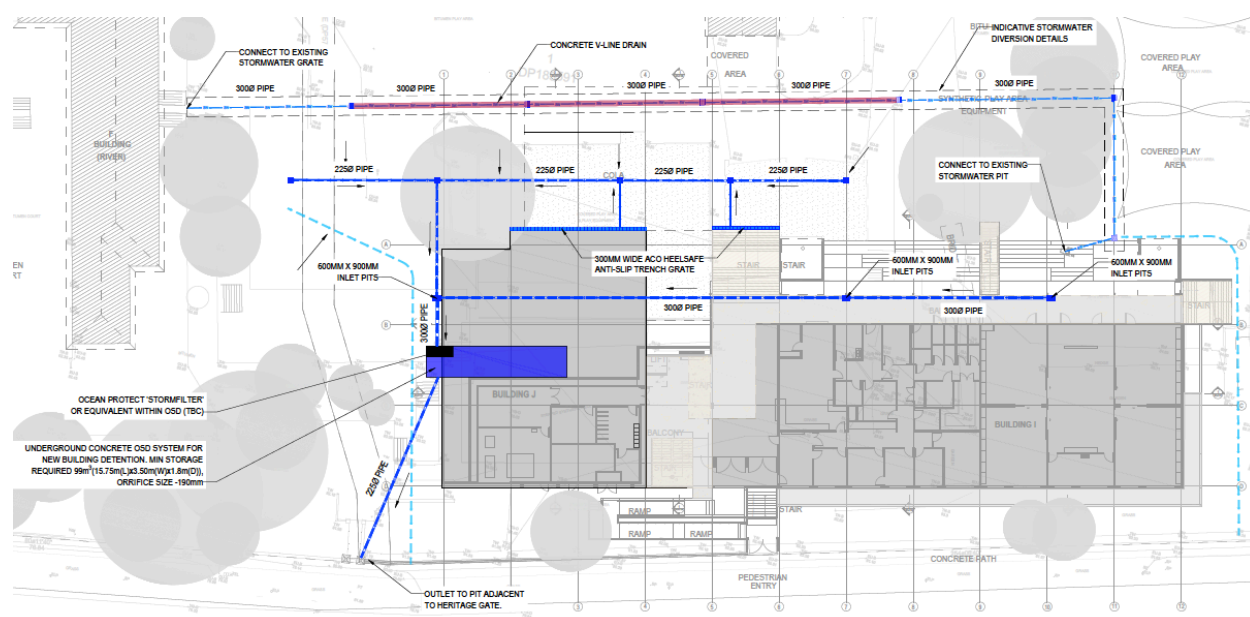
Figure 76: Proposed bicycle parking (Source: Ason Group)

3.6.6. Waste servicing

As per current arrangements, all major deliveries and waste collection will continue to occur within the staff car park. Ason Group have advised that the proposed upgrades (including additional students and staff) do not alter the servicing capacity required for the school. Delivery times will be strictly managed to minimise movements and ensure they are outside of school peak times. This will continue to be managed by school administration.

3.7. Stormwater

Aurecon has prepared a Stormwater Management Report and Plans which can be found at Appendix H. An internal drainage system is proposed which will capture and convey all stormwater to an on-site detention system below the new buildings. The detention system has a volume of 99m³. The detention system arrangement and size has been designed to ensure no increase in peak discharge from the site from the existing to the developed scenario in accordance with the NSDCP 2013. Stormwater quality treatment is proposed to be provided by way of gross pollutant tanks and an ocean phosphosorb stormfilter (or similar). Refer to the following figure for an extract of the concept stormwater plan.



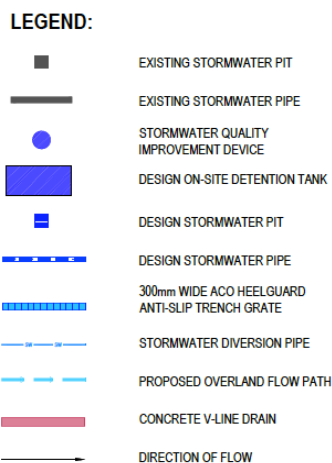


Figure 77: Extract of proposed stormwater plan (Source: Aurecon)

3.8. Sediment and Erosion Control

Aurecon has prepared a sediment and erosion control plan in Appendix H. It comprises a sediment fence adjacent to the south boundary, stabilised site access and inlet protection to the north. The following figure provides an extract of that plan.

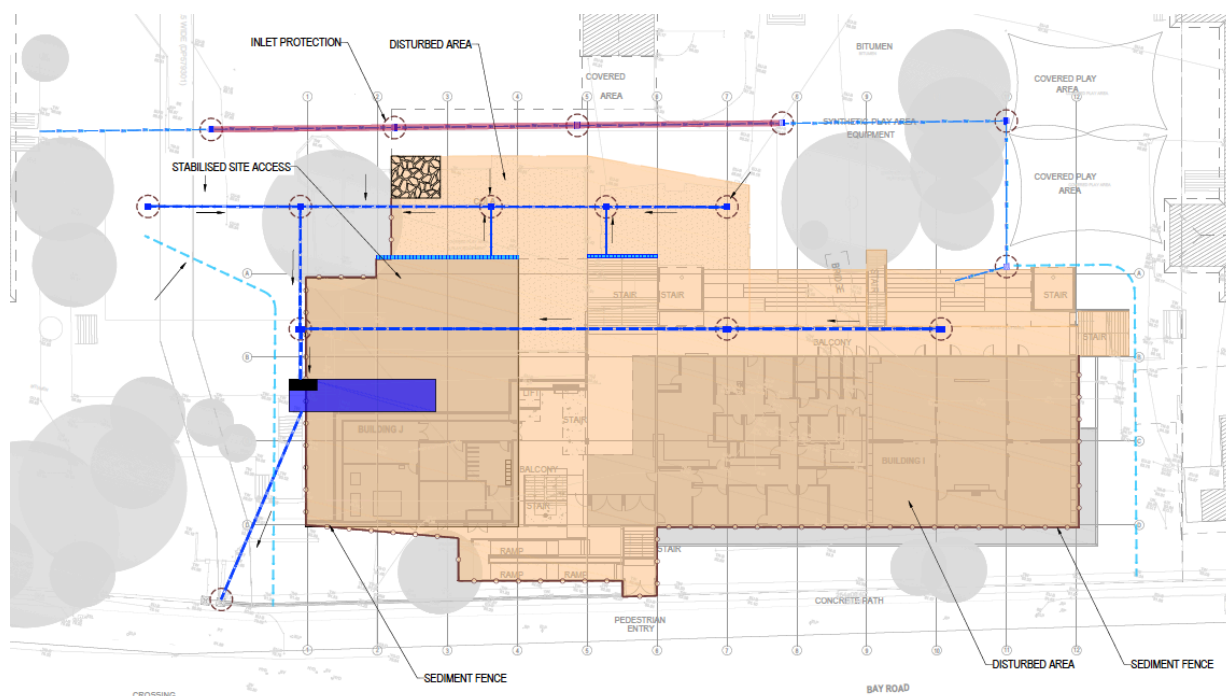


Figure 78: Extract of proposed sediment and erosion control plan (Source: Aurecon)

3.9. Earthworks

Earthworks are required to accommodate to proposed upgrades, refer to the following table and plan prepared by

Aurecon.

Table 4: Proposed cut and fill to accommodate upgrades

CUT/FILL	PROPOSAL
Volume cut	-3,707.436m ³
Volume fill	307.837m ³
Balance	-3,399.598m ³

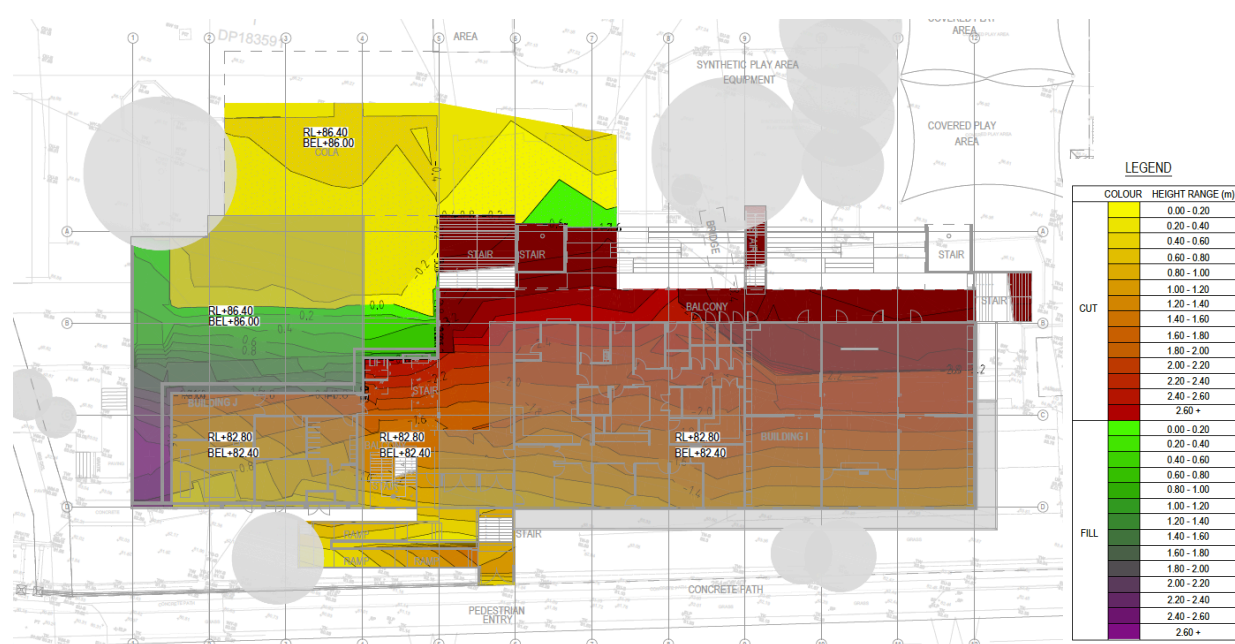


Figure 79: Extract of proposed cut and fill plan (Source: Aurecon)

3.10. Utilities

LCI has prepared a Utilities Report which can be found at Appendix I. Section 2.17 of this EIS describes the existing utilities servicing the site. This section of the EIS describes the proposed utilities and infrastructure required to support the proposed upgrades.

Electrical Infrastructure

A new main distribution board (MBD) rated to 400amps is proposed to supply the two new buildings. The location of the MBD is planned to be within a dedicated electrical cupboard on level 1 of Building I in the corridor of the admin area. The MBD will supply electricity to a distribution board for general power and lighting for final sub-circuits located on each floor, the new hall (Building J) and any mechanical services switchboards and dedicated hydraulic or fire services equipment. Subject to further surveys of the electrical pits and inground conduits on-site, the existing 400am submain supplying the existing MBD in Building B is proposed to be re-used for Buildings J and I. This will require a cable joint and extension of the submain to the new MBD location. As described in Appendix I, relocation of electrical infrastructure servicing other buildings on-site will occur prior to the commencement of SSDA works. The relocation is exempt development and does not form part of the SSDA scope.

Telecommunication Infrastructure

It is proposed to retain the existing incoming comms route from Bay Road and McHatton Street. Pits will be upgraded to meet the current NBN requirements and, new conduits and a pit provided to connect to Building J, where the main comms room is proposed. The new comms lead-in route is depicted below.

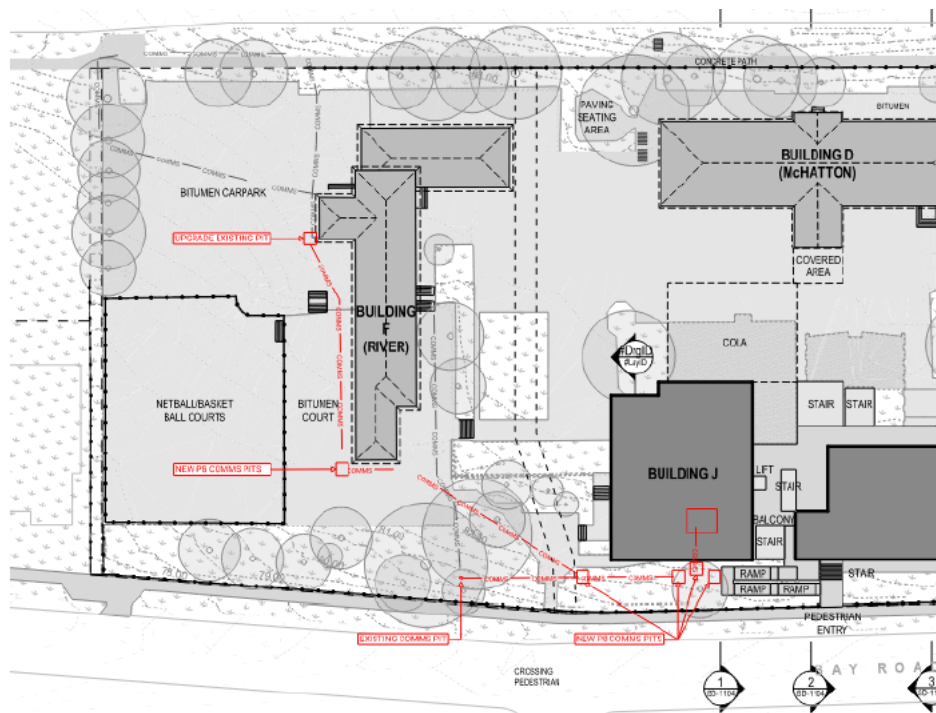


Figure 80: Proposed comms infrastructure (LCI)

Water, Gas and Sewer Utility Services

Portable Cold Water

It is envisaged a new water main connection to serve portable cold water may not be required. This is subject to final survey results. LCI have submitted a pressure and flow application to Sydney Water to investigate hydraulic demands for the water main. LCI are awaiting pressure and flows results. LCI will continue engaging with Sydney Water as required.

Fire Services

The school does not currently have a fire hydrant system in accordance with the BCA. A fire hydrant is required to be provided in accordance with BCA, AS2419.1-2005. The exact location is yet to be resolved but is intended to form part of the SSDA in the RtS stage.

Gas Services

The gas meter and services to the school will be removed and decommissioned in accordance with Jemena Guidelines and AS/NZS5601 requirements.

Sanitary Drainage System

In accordance with the Gravity Sewerage Code of Australia (WSA-Part2), the proposal will require frontage to a minimum DN225mm sewer main to connect into. Based on initial investigations and site inspection undertaken by LCI, the development currently has two frontages to sewer main. Further investigations will be required in detailed design to detail with a survey each sanitary drainage line, depth and fixtures they serve throughout the school. It is envisaged a new sewer connection may not be required though is subject of final survey results.

Based on the preliminary design calculation of the proposed new buildings and existing buildings, LCI anticipate a new sewer connection may not be required, though this is subject to final survey results. The proposal has two frontages to sewer main. Further investigation is required to detail (survey) each sanitary drainage line, depth and what fixtures they serve.

3.11. Construction Program and Hours

Construction is anticipated to commence late 2021 and to be completed by the end of 2022, with the new components of the school to be operational day 1 term 1 2023. The key milestones of the construction program include:

- Stage 1: Relocate temporary buildings
 - The two temporary classroom buildings which are located adjacent to Building C (within the proposed building footprint) will be located out of the construction zone in the north-east corner of the site to allow them to remain operational during the construction period.
- Stage 2: Demolish existing buildings
 - Building B and C will be demolished in order to clear the construction zone for the new buildings.
- Stage 3: Construct new buildings
 - Earthworks and construction of new Buildings I and J, associated civil and landscape works.
- Stage 4: Repurpose Building G
 - Once the library facilities in Building I are commissioned, the existing library in Building G is refurbished and repurposed into three new homebases.
- Stage 5: Remove temporary buildings
 - Following completion of the proposed works, the remaining temporary buildings will be removed from the site.

An indicative construction staging plan extract is provided in the figure on the page over.

Upgrades to North Sydney Public School

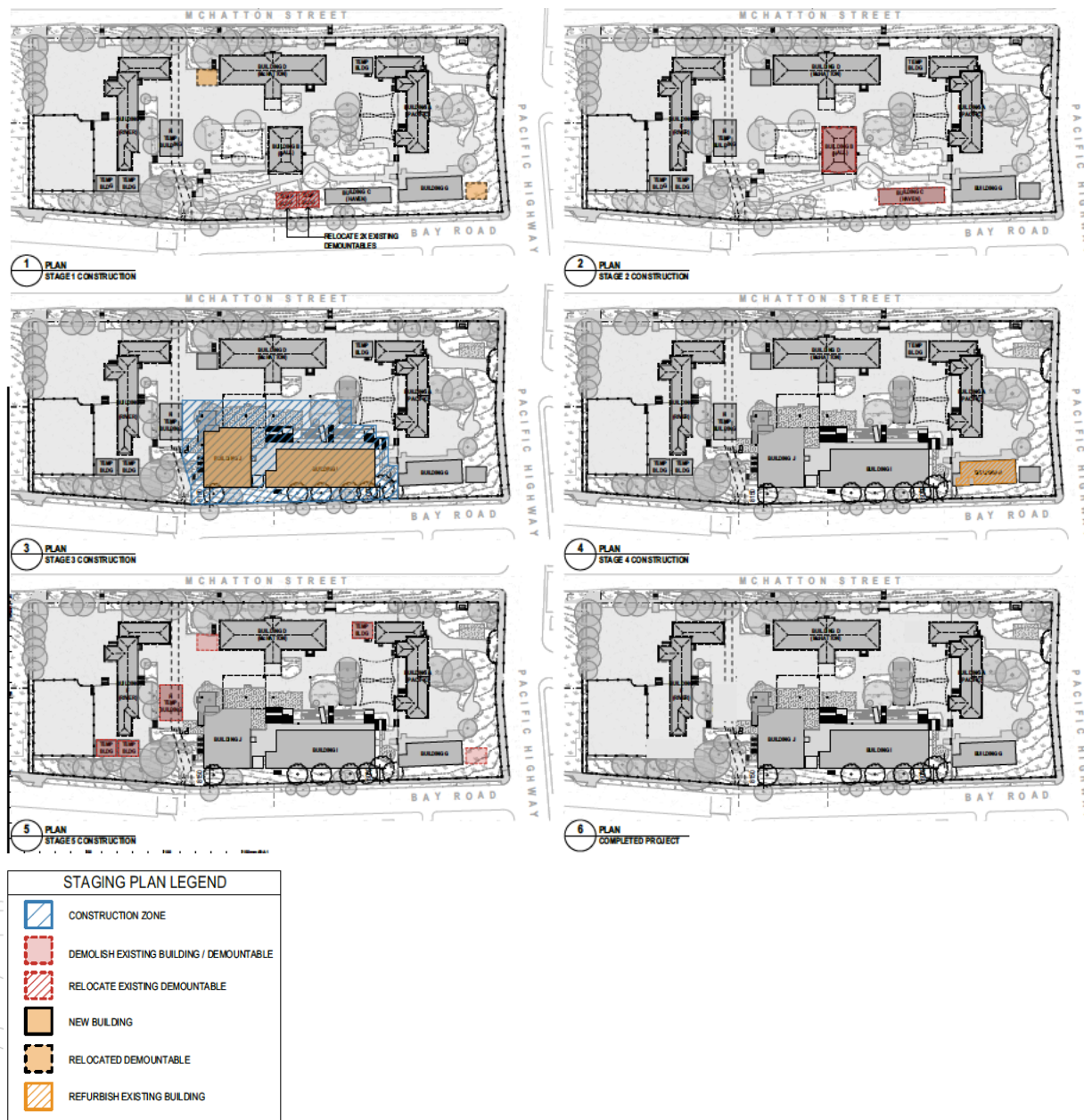


Figure 81: Extract of staging plan (Source: Fulton Trotter)

Refer to the Preliminary Construction and Environmental Management Plan (PCEMP) prepared by Turner & Townsend for detail.

Construction of the proposal will be undertaken during the following standard hours:

- Monday to Friday: 7:00am to 5:00pm
- Saturday: 8:00am to 1:00pm
- Sunday and Public Holidays: No work

It is noted that no construction deliveries between 7:30am and 9:00am and 1:30pm and 3:00pm on school days will be permitted.

134 construction jobs will be generated from the project.

Turner & Townsend has prepared a PCEMP in Appendix V. This confirms the staging required to deliver the project and so as to not adversely impede on the ongoing school operation.

3.12. Operation

3.12.1. Staff

The school currently operates on the basis of 80 staff; specifically 55 full time and 25 part time. This SSDA seeks consent to increase overall staffing by 6 full time staff members and 1 administration special support staff member. This results in a total proposed staff capacity of 87.

3.12.2. Students

The subject SSDA seeks consent to increase capacity of the school from 869 students to 1,012 students to directly respond to demand within the catchment.

3.12.3. Operation

As noted earlier, the operation of the upgraded areas of the school will commence early 2023. The operating hours of the school will remain unchanged with bell times starting at 8:55am and concluding at 2:55pm during weekdays. The hall and the library will be available for the community to use out of school hours. This will be managed in accordance the DoE's typical policies.

4. STRATEGIC CONTEXT

In accordance with the SEAR's, the following strategic planning policies have been considered in the assessment of the proposal:

- NSW State Priorities
- State Infrastructure Strategy 2018 – 2038 Building the Momentum
- Future Transport Strategy 2056
- Crime Prevention through Environmental Design (CPTED) Principles
- Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017)
- Healthy Urban Development Checklist (NSW Health, 2009)
- Draft Greener Places Design Guide (GANSW)
- The Greater Sydney Region Plan - A Metropolis of Three Cities
- North District Plan
- North Sydney Development Control Plan 2013
- North Sydney Local Strategic Planning Statement

The relevant strategies, policies and guidelines as set out in the SEARs are addressed in the below table.

Table 5: Strategic plans relevant to the proposed development

INSTRUMENT/STRATEGY	COMMENTS
NSW State Priorities	<p>NSW State Priorities is the State Government's plan to guide policy and decision making across NSW. The proposed upgrades to the school is consistent with the key objectives contained within the plan including:</p> <ul style="list-style-type: none"> • <i>Lifting Education Standards: Increase the proportion of NSW students in the top two NAPLAN bands by 15% by 2023.</i> <p>The proposal will contain high quality facilities, spaces and equipment for use by students and staff. This will provide students with greater opportunities to learn and improve their numeracy and literacy skills.</p> <ul style="list-style-type: none"> • <i>Lifting Education Standards: Increase the number of Aboriginal students attaining year 12 by 50% by 2023, while maintaining their identity.</i> <p>The proposal will enhance learning facilities for the North Sydney community. The school community will encourage the attainment of year 12 and seek to create an environment which respects and shares Aboriginal identity.</p> <ul style="list-style-type: none"> • <i>Better Environment: Increase the tree canopy and green cover across Greater Sydney by planting one million trees by 2022.</i> <p>As discussed in Section 2 of this EIS, the site benefits from substantial planting mostly adjacent to it's respective boundaries. The proposal enhances this existing landscape with the provision of new plantings as illustrated in Appendix C. The SSDA provides 33% of tree canopy cover across the site (1% increase from existing), making a positive contribution to increasing green cover across Greater Sydney.</p> <p>Overall, it is considered that the proposal is consistent with the goal and objectives set out within the NSW State Priorities.</p>

INSTRUMENT/STRATEGY	COMMENTS								
State Infrastructure Strategy 2018 – 2038 Building the Momentum	<p>The proposal is consistent with the State Infrastructure Strategy by:</p> <ul style="list-style-type: none"> • Delivering school infrastructure to keep pace with catchment demand; • Providing modern, digitally enabled learning spaces; and • Delivering upgrades to an existing primary school through the stimulus program to efficiently support the growing community. 								
Future Transport Strategy 2056	<p>Future Transport 2056 is an update of NSW's Long-Term Transport Master Plan which seeks to promote use of public transport as an effective travel option. The site benefits from being located:</p> <ul style="list-style-type: none"> • Near future cycleways and bicycle friendly roads; • Within an area serviced by an established public transport network; and • Within an established residential neighbourhood containing footpaths; to encourage walking. <p>Therefore, staff and students will be able to easily cycle, walk or utilise public transport to access the primary school. In turn, reducing reliance on private vehicles, decrease traffic congestion and promote sustainable outcomes. Ason Group has prepared a School Travel Plan which promotes active transport strategies.</p>								
Crime Prevention Through Environmental Design (CPTED) Principles	<p>The proposal implements the principles of CPTED as identified in the Crime Prevention and Assessment of Development Applications (2001), as demonstrated in the following table.</p> <table> <tr> <th data-bbox="584 1133 751 1167">Principle</th><th data-bbox="756 1133 1492 1167">Comment</th></tr> <tr> <td data-bbox="584 1173 751 1442">Access control</td><td data-bbox="756 1173 1492 1442"> <ul style="list-style-type: none"> • The proposed new entry from Bay Road is designed to allow for a free flow of students and parents at pick-up and drop-off time. However, during school hours, this access will be closed and visitors will be directed to the administration reception area to ensure they are checked in before given access to the school. • The new facilities have been designed in accordance with DoE requirements, meaning they can be easily locked-down to protect students in the case of a security incident. </td></tr> <tr> <td data-bbox="584 1449 751 1794">Surveillance</td><td data-bbox="756 1449 1492 1794"> <ul style="list-style-type: none"> • The proposal allows for all circulation areas, particularly the new main entrance to the site, to be open, accessible and clearly visible from both inside the site and from the street. • The entrance points are fenced to allow them to be closed off when not in use and landscaped in such a way as to avoid creating hidden areas. They are also appropriately lit to allow safe level of surveillance and supervision during periods of out-of-hours use. • Play areas have also been designed to allow good passive and active surveillance at all times, particularly during operation. </td></tr> <tr> <td data-bbox="584 1800 751 1986">Territorial reinforcement</td><td data-bbox="756 1800 1492 1986"> <ul style="list-style-type: none"> • A security fence is maintained around the full perimeter of the school to ensure it can be contained and access restricted out of hours, as required. • Wayfinding will be implemented concurrently to guide students, staff and visitors as required. • During school operation, the entrance arrangements have been </td></tr> </table>	Principle	Comment	Access control	<ul style="list-style-type: none"> • The proposed new entry from Bay Road is designed to allow for a free flow of students and parents at pick-up and drop-off time. However, during school hours, this access will be closed and visitors will be directed to the administration reception area to ensure they are checked in before given access to the school. • The new facilities have been designed in accordance with DoE requirements, meaning they can be easily locked-down to protect students in the case of a security incident. 	Surveillance	<ul style="list-style-type: none"> • The proposal allows for all circulation areas, particularly the new main entrance to the site, to be open, accessible and clearly visible from both inside the site and from the street. • The entrance points are fenced to allow them to be closed off when not in use and landscaped in such a way as to avoid creating hidden areas. They are also appropriately lit to allow safe level of surveillance and supervision during periods of out-of-hours use. • Play areas have also been designed to allow good passive and active surveillance at all times, particularly during operation. 	Territorial reinforcement	<ul style="list-style-type: none"> • A security fence is maintained around the full perimeter of the school to ensure it can be contained and access restricted out of hours, as required. • Wayfinding will be implemented concurrently to guide students, staff and visitors as required. • During school operation, the entrance arrangements have been
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Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)	<p>The objectives of Better Placed have been considered and responded to in the proposed design. The Architectural Design Report in Appendix B outlines how each of the following objectives have been addressed:</p> <ul style="list-style-type: none"> Objective 1: Better fit contextual, local and of its place Objective 2: Better performance sustainable, adaptable and durable Objective 3: Better for community inclusive, connected and diverse Objective 4: Better for people safe, comfortable and liveable Objective 5: Better working functional, efficient and fit for purpose Objective 6: Better value creating and adding value Objective 7: Better look and feel engaging, inviting and attractive 				
Healthy Urban Development Checklist (NSW Health, 2009)	<p>The Healthy Urban Development Checklist 2009 was updated in 2020 by the NSW Ministry of Health. It seeks to encourage built environments to be created in NSW which are sustainable and promote healthy habits. The proposal satisfies a range of items within the checklist, including:</p> <ul style="list-style-type: none"> Encourage incidental physical activity; Promote opportunities for walking, cycling and other forms of active transport; Promote access to quality open spaces, including green space and recreational facilities; Reduce car dependency and encourage active transport; Improve the location of jobs in terms of housing and community options; Consider crime prevention and a sense of security; Promote quality streetscape that encourage activity; Engender a sense of cultural identity, sense of place and incorporate public art; Provide access to a range of facilities to attract and support a diverse population; Provide environments that will encourage social interaction and connection; and The proposal aids in promoting a healthy and sustainable built environment. <p>The Architectural Plans (Appendix B), Landscape Plan (Appendix C) and School Transport Plan (Appendix O) demonstrate consistency with the checklist.</p>				
Draft Greener Places Design Guide (GANSW)	<p>The Draft Greener Places Design Guide prepared by GANSW establishes a framework to design, plan and implement green infrastructure in urban areas within NSW. The proposal is consistent with the objectives of the guideline, including:</p> <ul style="list-style-type: none"> Enhancing quality open space within the school site in various forms such as the COLA, seating areas, synthetic play area and the yarning circle. These spaces serve a variety of purposes including encouraging social interaction, facilitating learning opportunities in the outdoors, encouraging both purposeful and incidental 				

INSTRUMENT/STRATEGY	COMMENTS
	<p>physical activity;</p> <ul style="list-style-type: none"> • Maintaining and enhancing the tree canopy at the site to provide shade and shelter, improve air quality, absorb carbon and rainfall, contribute to the cooling of the local environment and support wildlife. The landscape proposal seeks to renew the existing landscape qualities of the site, retain an existing significant tree, open up the central courtyard and provide a variety of active and educational play spaces for students; and • The proposal on a small scale contributes to the creation of greener places.
<p>The Greater Sydney Regional Plan; A Metropolis of Three Cities</p>	<p>A Metropolis of Three Cities - the Greater Sydney Region Plan (GSRP) was released in March 2018. The GSRP encompasses a global metropolis of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City. It is envisioned that people of Greater Sydney will live within 30 minutes of their jobs, education and health facilities, services and great places.</p> <p>The following key directions are relevant to the proposal:</p> <ul style="list-style-type: none"> • 'A city supported by infrastructure' <p>Providing adequate infrastructure to support population growth is essential to creating strong communities. In accordance with the GSRP, this SSDA will ensure that the upgrades to the existing public school can be delivered to meet Sydney's growing educational needs. The proposal will take enrolment pressure off other schools in the locality and provide an enhanced high-quality educational offering to service the population of the catchment area.</p> <ul style="list-style-type: none"> • 'A city for people' <p>The proposal will deliver a sustainable, well-designed upgraded school that promotes the use of public and active transport for students, staff and parents/caretakers. The development makes a valued contribution to the economic growth of North Sydney and provides enhanced learning opportunities for students and employment opportunities for staff. The architectural and landscape designs seek to embrace the surrounding natural environment and history of the area and create unique and well-considered play spaces and learning environments across the site.</p> <ul style="list-style-type: none"> • <i>Objective 1: Infrastructure supports the three cities</i> <p>Schools are essential local infrastructure. The proposal will upgrade a vital piece of educational infrastructure in North Sydney that will service the growing community of the locality.</p> <ul style="list-style-type: none"> • <i>Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact</i> <p>North Sydney is a continually growing suburb, and the surrounding area is forecast to experience significant residential and employment growth. Accordingly, the upgrades to the existing school will provide educational services that seek to accommodate the growing student population. The school will provide contemporary facilities to meet future educational standards and provide increased jobs and growth for North Sydney.</p> <ul style="list-style-type: none"> • <i>Objective 3: Infrastructure adapts to meet future needs</i> <p>The DoE estimates that by 2031, an additional 269,000 new students will require access to government and non-government schools. The proposal has been designed to be adaptable to meet the future needs of the community. It provides an innovative</p>

INSTRUMENT/STRATEGY	COMMENTS
	<p>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 7 Communities are healthy, resilient and socially connected</i> <p>The upgrades to the school will facilitate a more socially connected community and help to create and support an inclusive and vibrant neighbourhood. The site is situated in the heart of a walkable neighbourhood and will increase opportunities for students and staff to walk and cycle to school, resulting in a school that is well connected with its surrounding community. The proposal also includes a range of open spaces, playgrounds and sports facilities to encourage active and passive recreation.</p> <ul style="list-style-type: none"> • <i>Objective 14: A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities</i> <p>The proposal enhances connections to safe walking and cycling links to the school and encourages young people to be more active. The site is close to bike paths, established residential neighbourhoods and bus routes. Employees and students will continue to be encouraged to access the site via public transport, cycling or walking through the implementation of the School Transport Plan (Appendix O). This will reduce reliance on cars, decrease road congestion and generally create a healthy built environment.</p>
North District Plan	<p>The North District Plan supports the objectives of the GSRP and informs local planning. The North District Plan provides a series of priorities and actions to guide development and accommodate the expected growth across the district. The District Plan identifies:</p> <ul style="list-style-type: none"> • There is expected to be a 20% increase in population of people aged 5- 19 years; • The DoE estimates an extra 21,900 students will need to be accommodated in government and non-government schools in the North District by 2036, a 20% increase; • It is important to provide services and facilities to meet communities' changing needs, this includes creating opportunities for increased shared use and more flexible use of under-utilised facilities such as schools; and • Planning for the use of existing schools must respond to growth and changing demand in innovative ways such as more efficient use of land, contemporary design, greater sharing of spaces and facilities and flexible learning spaces. <p>The above points clearly demonstrate the demand for school places which needs to be supported by planning for upgraded school infrastructure. The proposal achieves the objectives of the District Plan as a stimulus project which has been fast-tracked to meet the supply issue in the catchment.</p>
North Sydney Development Control Plan 2013	<p>Section 5.11 of this EIS provides an assessment of the proposal against the NSDCP 2012 which is the applicable DCP for the site. The draft NSDCP 2020 is also considered in Section 5.12 of this EIS.</p>
North Sydney Local Strategic Planning Statement	<p>The proposal is consistent with the following priorities and actions of the North Sydney LSPS:</p> <ul style="list-style-type: none"> • Planning Priority I1: Provide infrastructure and assets to support growth and change. • Planning Priority L2: Provide a range of community facilities and services to support a creative, healthy, diverse and socially connected North Sydney community.

INSTRUMENT/STRATEGY	COMMENTS
	<ul style="list-style-type: none"> • Planning Priority L3: Create great places that recognise and preserve North Sydney's distinct local character and heritage. • Planning Priority: P6: Support walkable centres and a connected and sustainable North Sydney. <p>We note:</p> <ul style="list-style-type: none"> • Prior to lodgement of the SSDA, DoE undertook extensive consultation, to understand, and duly consider in the design response, the needs of the community and relevant agencies and stakeholders. This has been an ongoing collaborative process and will continue during the assessment of the SSDA; • The proposal will assist in improving North Sydney's standing as an education destination; and • The proposal responds to the local character and heritage of the locality.

5. STATUTORY PLANNING CONTEXT

5.1. Overview

This section considers all relevant Commonwealth, State and Local legislation which apply to the proposal.

5.2. Relevant Statutory Planning Framework

The statutory planning framework considered in Section 5 of this EIS includes:

- EP&A Act
- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
- Biodiversity Conservation Act 2016 (BC Act)
- SRD SEPP
- ESEPP
- Draft ESEPP
- State Environmental Planning Policy (Infrastructure 2007) (ISEPP)
- State Environmental Planning Policy No. 55 - Remediation of Land (SEPP55)
- Draft State Environmental Planning Policy (Remediation of Land)
- Draft State Environmental Planning Policy (Environment)
- State Environmental Planning Policy No.64 - Advertising and Signage
- NSLEP 2013
- NSDCP 2013
- Draft NSDCP 2020

5.3. Planning Approval Pathway

As detailed in Section 5.9.1 of this EIS, the development, by virtue of its ongoing educational use and CIV, constitutes SSDA pursuant to Clause 15(2) of Schedule 1 of the SRD SEPP.

5.4. Permissibility

The site is zoned SP2 Infrastructure (Educational Establishment) pursuant to the NSLEP 2013. The proposed school is defined as an *education establishment* as follows:

educational establishment 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

The proposed upgrades to the existing education establishment is permitted with development consent in the SP2 Infrastructure zone.

5.5. Additional Approvals Required

Section 4.41 of the EP&A Act identifies multiple approvals that are not required for SSD, including:

- Permit under Section 201, 205 and 2019 of the *Fisheries Management Act 1994*
- Approval under Part 4 or an excavation permit under Section 139 of the *Heritage Act 1977*
- An aboriginal heritage impact permit under Section 90 of the *National Parks and Wildlife Act 1974*
- Bushfire Safety Authority under Section 100B of the *Rural Fires Act 1997*
- Approval under Section 89, 90 or 91 of the *Water Management Act 2000*

Pursuant to Clause 4.42 of the EP&A Act the following legislation must consistently be applied to SSDAs:

- Aquaculture permit under Section 144 of the *Fisheries Management Act 1994*
- Approval under Section 15 of the *Mine Subsidence Compensation Act 1961*
- Mining lease under the *Mining Act 1992*
- Production lease under the *Petroleum (Onshore) Act 1991*
- Environment protection license under Chapter 4 of the *Protection of the Environment Operations Act 1997*
- Consent under Section 138 of the *Roads Act 1993*
- A license under the *Pipelines Act 1967*

The proposal requires consent pursuant to Section 138 of the Roads Act 1993. In accordance with Section 138(3) of the Roads Act, TfNSW must consult with the applicant before deciding whether or not to grant consent or concurrence. TfNSW has been consulted through the Transport Working Group that was established throughout the course of the preparation of this EIS, refer to Section 6.2.3 of this EIS and the Transport and Accessibility Report prepared by Ason Group in Appendix N.

5.6. EPBC Act

The EPBC Act is Federal legislation which provides a legal framework to protect and manage nationally important flora, fauna, ecological communities and heritage places defined as 'matters of national environmental significance' (MNES). A referral must be made to the Australian Government Minister for the Environment for actions that are likely to have a significant impact on MNES. Eco Logical Australia has prepared a BDAR Waiver Report and Supplementary Letter in Appendix F. It is noted:

- Two hollow-bearing trees were along on the northern site boundary, however, will not be impacted by the upgrades;
- One *Eucalyptus nicholii* (Narrow-leaved Black Peppermint), a vulnerable species under the BC Act and EPBC Act, was identified within the site during the survey, which is located outside of the normal distribution for this species, being the NSW North Coast. The removal of this threatened species is assessed in Appendix F and would not result in a significant impact to this threatened species as the site does not contain habitat for the species and is located outside of the known distribution and was likely planted; and
- The removal of planted vegetation, which may provide seasonal foraging habitat for the Grey-headed Flying-fox, would not result in a significant impact to the species as foraging habitat is marginal and breeding habitat were not identified within the site.

Eco Logical Australia conclude as the proposal does not have a significant impact, referral to the Commonwealth is not required.

5.7. EP&A Act

5.7.1. Objects of the Act

The proposal is consistent with the objects of the EP&A Act. In particular, the proposal:

- Promotes the social welfare of the community;
- Allows for the orderly and economic development of the land;
- Promotes sustainable management of built and cultural heritage (including Aboriginal heritage);
- Promotes good design and amenity of the built environment; and
- Is development for a public purpose and therefore provides community services.

The upgrades to the school is consistent with Division 4.7 of the EP&A as:

- The proposal promotes public education services and therefore, stimulates social welfare of the community; and
- The proposal has been evaluated and assessed against the relevant heads of consideration in Section 4.15(1) of the EP&A Act.

5.7.2. Ecologically Sustainable Design

An object of the EP&A Act is to facilitate ecologically sustainable development (ESD). ESD has the same meaning in Section 6(2) of the *Protection of Environment Administration Act* 1991. The principles of ESD that are required to be considered in the assessment of the proposal are:

- the precautionary principle
- inter-generational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms

The four ESD principles stipulated in the EP&A Regulation are incorporated in the proposal and will be implemented during the ongoing operation of the new primary school as follows:

- **The Precautionary Principle:** The proposal seeks to minimise impact on the environment particularly with regard to energy, water and materials. The incorporation of high performing external glazing and shading devices with energy efficient design measures together minimise severe and irreversible environmental damage;
- **Inter-Generational Equity:** The proposal will not cause significant impact on the health, diversity and productivity of the environment. The project will provide a positive community benefit and strengthen learning opportunities in the locality;
- **Conservation of Biological Diversity and Ecological Integrity:** As discussed in this EIS, the site does not possess biodiversity or ecological values as confirmed in the BDAR Waiver in Appendix F. The proposal will not result in threats to endangered species, communities or their habitat; and
- **Improved Valuation, Pricing and Incentive Mechanisms:** The construction materials will be selected based on relative cost-benefit analysis on the whole life costs rather than capital expenditure only. Where possible, certified recycled and reused materials with low embodied energy will be utilised.

Refer to the ESD Report (Appendix P) for further detail.

5.8. Biodiversity Conservation Act 2016

The BC Act is the key piece of legislation that identifies and protects threatened species, populations and ecological communities that are under threat of extinction in NSW. Impacts to threatened species and endangered ecological communities listed under the BC Act are required to be assessed in accordance with Section 7.3 of the BC Act and applicants must also consider whether their proposal will exceed the following Biodiversity Offset Scheme Development Thresholds:

1. Exceeding the clearing threshold on an area of native vegetation;
2. Carrying out development on land included in the Biodiversity Values Land Map; or
3. Having a 'significant effect' on threatened species or ecological communities.

DPIE confirmed on 15 May 2021 that a BDAR is not required for the subject proposal. Refer to Appendix F for the BDAR Request prepared by Eco Logical Australia and the Waiver issued by DPIE. It is noted:

- Two hollow-bearing trees were along on the northern site boundary, however, will not be impacted by the upgrades;
- One *Eucalyptus nicholii* (Narrow-leaved Black Peppermint), a vulnerable species under the BC Act and EPBC Act, was identified within the site during the survey, which is located outside of the normal distribution for this species, being the NSW North Coast. The removal of this threatened species is assessed in Appendix F and would not result in a significant impact to this threatened species as the site does not contain habitat for the species and is located outside of the known distribution and was likely planted; and
- The removal of planted vegetation, which may provide seasonal foraging habitat for the Grey-headed Flying-fox, would not result in a significant impact to the species as foraging habitat is marginal and breeding habitat were not identified within the site.

Eco Logical Australia conclude that the proposal will not trigger the threshold or cause adverse ecological impacts. This was verified by DPIE on 18 May 2021 in the issued BDAR Waiver.

5.9. State Environmental Planning Policies

The following section addresses the SEPPs which are applicable to the proposal.

5.9.1. State Environmental Planning Policy (State and Regional Development) 2011

The SRD SEPP nominates certain types of development as either SSDs, State Significant Infrastructure or Regionally Significant Developments. Clause 15(2) of Schedule 1 of the SRD SEPP states:

15 Educational establishments

- (1) *Development for the purpose of a new school (regardless of the capital investment value).*
- (2) ***Development that has a capital investment value of more than \$20 million for the purpose of alterations or additions to an existing school.***
- (3) *Development for the purpose of a tertiary institution (within the meaning of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017), including associated research facilities, that has a capital investment value of more than \$30 million.*

The proposed upgrades to the existing school has a CIV of \$35,262,872, being greater than the \$20 million threshold. The proposal therefore meets the definition of SSD. The consent authority under Section 4.5 of the EP&A Act is the Minister for Planning and Public Spaces or their delegate.

The EP&A Act establishes the assessment framework for the proposal. Section 4.12(8) requires that a SSDA be accompanied by an EIS prepared by or on behalf of the applicant in the form prescribed by Schedule 2 of the EP&A Regulation. The subject EIS satisfies those requirements.

5.9.2. State Environmental Planning Policy (Educational Establishment and Child Care Facilities 2017)

The aim of the ESEPP is to facilitate the effective delivery of educational establishments and early education and care facilities across the State. The ESEPP balances the need to deliver additional educational infrastructure with a focus on high-quality and sustainable design.

As outlined in Section 5.3 of this EIS, the site is zoned SP2 Infrastructure (Educational Establishment). The proposal is permitted with development consent pursuant to the NSLEP.

Pursuant to Clause 35(6) of the ESEPP, the following must be considered for the assessment of a school development permitted with consent:

- (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.*

Schedule 4 - Design Quality Principles

Schedule 4 of the ESEPP outlines the design quality principles that are to be considered for applications relating to schools. The proposal is consistent with these design principles are demonstrated in the below table and in the Architectural Design Report prepared by Fulton Trotter (Appendix B).

Table 6: Response to Schedule 4 of the ESEPP

PRINCIPLES	RESPONSE
Principle 1—context, built form and landscape	The built form respects the existing and desired future character of the locality. The proposal is considered an appropriate scale and comprises a variety of materials to break up the built form mass, complement the roof forms and materiality of heritage affected buildings and provide built form articulation when viewed from the streetscape. The proposal further enhances tree canopy provision to 33% and provides compatible colours and materials.
Principle 2—sustainable, efficient and durable	The proposal seeks to implement a variety of ESD measures, referred to in Appendix P. The development provides 134 construction jobs and 7 new staff. The upgrades will alleviate pressure on other existing schools.
Principle 3—accessible and inclusive	The proposal is capable of complying with the provisions for accessibility as assessed by Philip Chun in Appendix Q. As discussed in this EIS, a significant benefit of the proposal is the provision of an additional entry from Bay Road which is DDA compliant, as this is currently absent from the school.
Principle 4—health and safety	The upgrades enhance the safe, inviting and diverse environment at the school. CPTED principles have informed the design. The various landscaped areas create unique settings to encourage social interaction and physical activity.
Principle 5—amenity	The proposal provides a diversity of learning spaces including internal and external spaces that are interconnected, and the design creates a high level of amenity. The design is fit for purpose.
Principle 6—whole of life, flexible and adaptive	The new development has carefully considered site-wide strategic and spatial planning to ensure the future development of surrounding sites is not inhibited. The proposed buildings are flexible in design. As mentioned in Section 5.7.2 of this EIS, the construction materials will be selected based on relative cost-benefit analysis on the whole life costs rather than capital expenditure only. Where possible, certified recycled and reused materials with low embodied energy will be utilised.
Principle 7—aesthetics	The upgrades provide a superior built form outcome which complements the existing

PRINCIPLES	RESPONSE
	school and is respectful or, and responsive to, the existing heritage values of the site and surrounds. The design improves the diverse landscape opportunities for play and learning.

Traffic Generating Development

Clause 57 of the ESEPP stipulates development for the purposes of an educational establishment with 50 or more students, new premises and direct vehicular or pedestrian access to any road will be referred to TfNSW. TfNSW was consulted during the SEARs stage and in the preparation of the SSDA as part of the TWG. The Transport and Accessibility Report addresses the feedback provided by TfNSW during the TWG meetings. This is also summarised in Section 6 of this EIS and documented in detail in Appendix Y. The SSDA will be referred to TfNSW during the assessment process in accordance with Clause 57 of the ESEPP.

5.9.3. Draft State Environmental Planning Policy (Educational Establishments and Childcare Facilities)

The DPIE issued an Explanation of Intended Effects outlining amendments to the ESEPP and the SRD SEPP in November 2020. These amendments have not been finalised and currently have no effect. Notwithstanding, notable amendments which relate to the proposal in the table below.

Table 7: Summary of proposed amendments to the ESEPP

PROVISION	COMMENT
Proposed changes to the ESEPP	
A change is proposed to include a requirement to consult with TfNSW.	Despite the proposed change, TfNSW has been consulted in the TWG and will continue to be during the SSDA assessment
Proposed changes to the SRD SEPP	
It is proposed to amend Schedule 1, Clause 15(2) of the SRD SEPP to increase the CIV for alterations and additions from \$20 million to \$50 million and to permit demolition and redevelopment of an existing school via this clause.	The changes were not gazetted as at the date of this EIS.

5.9.4. State Environmental Planning Policy (Infrastructure) 2007

The aim of State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) is to facilitate the effective delivery of infrastructure across the State. The ISEPP does not apply to this SSDA.

5.9.5. State Environmental Planning Policy No.55 Remediation of Land

Clause 7 of SEPP 55 requires that a consent authority must not grant consent to a development unless it has considered whether a site is contaminated, and it is satisfied that the land is suitable (or will be after undergoing remediation) for the proposed use. Tetra Tech Coffey has prepared a PSI in Appendix J. It concludes that based on the review of the readily available records relating to the site and observations made during the recent site walkover, it is assessed that the site can be made suitable for the proposed development in accordance with SEPP 55. Coffey

recommends that a programme of intrusive investigation is completed within the development footprint to characterise fill materials and refine the assessment of potential risks in the context of the proposal. The findings should be presented in a Detailed Site Investigation. SINSW has engaged Tetra Tech Coffey to undertake additional contamination investigation addressing the recommendations. These are scheduled for the end of August given the COVID-19 lockdown, preventing site testing, and the findings will form part of the Response to Submissions (RtS). This was discussed with DPIE on Friday 20 August.

5.9.6. Draft State Environmental Planning Policy (Remediation of Land)

As part of the NSW Government's review program for existing SEPPs, the DPIE publicly exhibited the Draft Remediation of Land SEPP and the draft planning guidelines between 31 January and 13 April 2018. The draft Remediation of Land SEPP proposes changes to SEPP55 and relates to remediation of contaminated land as well as matters to be addressed in a plan of remediation. The PSI carried out and summarised in Section 5.9.5 and 7.18 of this EIS remain valid and consistent with the objectives of the proposed amendments.

5.9.7. Draft State Environmental Planning Policy (Environment)

The Draft State Environmental Planning Policy (Environment) 2017 (Draft Environment SEPP) aims to consolidate seven existing SEPPs. The Explanation of Intended Effect (EIE) for the Draft Environment SEPP was on exhibition from 31 October 2017 until 31 January 2018. The EIE explains that the consolidated SEPP proposes to simplify the planning rules for several water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property. The proposal is consistent with the Draft Environment SEPP as it provides a Stormwater Management Plan and Plans contained at Appendix H which address methods to minimise water consumption, reduce stormwater runoff and improve water quality to ensure downstream impacts are minimised.

5.9.8. State Environmental Planning Policy No.64 (Advertising and Signage)

State Environmental Planning Policy No.64 – Advertising and Signage (SEPP 64) aims to ensure signage is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations and is of a high-quality design and finish.

Clause 8 of SEPP 64 stipulates that a consent authority must not granted consent for an application to display signage unless the consent authority is satisfied:

(a) that the signage is consistent with the objectives of this Policy as set out in clause 3 (1) (a), and

(b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 1.

An assessment of the proposed school signage against the SEPP 64 assessment criteria is detailed in the below table. This assessment demonstrates the proposed sign satisfies the provisions of SEPP 64, including the aims and objectives of the policy.

Table 8: Consistency with SEPP64

ASSESSMENT CRITERIA	COMMENT	COMPLIES
Clause 3 - Aims and Objectives		
(a) to ensure that signage (including advertising)— (i) is compatible with the desired amenity and visual character of an area,	The scale of the indicative signs is compatible having regard to the surrounding context. The signage is also consistent with existing signage on the site and typical of school signage.	Yes

ASSESSMENT CRITERIA	COMMENT	COMPLIES
and (ii) provides effective communication in suitable locations, and (iii) is of high quality design and finish, and	The location of the signs on Bay Road ensures that they will be clearly visible from the southern and eastern streetscapes, allowing for effective legibility of the new administration area, hall, library and new buildings. The signs will incorporate quality materials and finishes and will provide a coherent and integrated colour theme consistent with the existing and proposed school development.	
(b) to regulate signage (but not content) under Part 4 of the Act, and	Noted.	Yes
(c) to provide time-limited consents for the display of certain advertisements, and	The signs are proposed for the life of the development.	Yes
(d) to regulate the display of advertisements in transport corridors, and	Not applicable.	Yes
(e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.	Not applicable.	Yes
Schedule 1 - Assessment Criteria		
1 Character of the area Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located? Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	The proposed signs are compatible with the existing and future character of the area. It is commensurate to other school signage at the grounds.	Yes
2 Special areas Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The site is not located in a special area. The signs will not detract from the amenity or visual quality of nearby residential land uses and heritage areas. The signs are of a scale and appearance that is compatible with the existing and future built form of the school.	Yes
3 Views and vistas Does the proposal obscure or compromise important views? Does the proposal dominate the skyline and reduce the quality of vistas? Does the proposal respect the viewing	The signs will not obscure any views. They have been sited and designed to ensure the signs sit comfortably on the new buildings. The signs are also not of a bulk or scale that would impede any view from the street. The signs are of a scale and height that is broadly consistent with existing signage in the locality and	Yes

ASSESSMENT CRITERIA	COMMENT	COMPLIES
rights of other advertisers?	commensurate with the proposed buildings within the site. The signage will not adversely impact on views or vistas from other properties, nor will it impede the visibility of any other existing signage.	
<p><i>4 Streetscape, setting or landscape</i></p> <p>Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?</p> <p>Does the proposal contribute to the visual interest of the streetscape, setting or landscape?</p> <p>Does the proposal reduce clutter by rationalising and simplifying existing advertising?</p> <p>Does the proposal screen unsightliness?</p> <p>Does the proposal protrude above buildings, structures or tree canopies in the area or locality?</p> <p>Does the proposal require ongoing vegetation management?</p>	<p>The signs are compatible with the scale of surrounding streetscape, setting and character of the nearby residential development, North Sydney CBD/Pacific Highway Corridor and educational precinct. The signs will therefore complement the existing signage in the wider precinct and will clearly identify the school within the Bay Road streetscape and from Pacific Highway. No adverse impact to the streetscape is anticipated.</p> <p>The proposal does not screen unsightliness and will not contribute to visual clutter as the signage panels are unified.</p> <p>The signs will not protrude above any structures or tree canopies.</p>	Yes
<p><i>5 Site and building</i></p> <p>Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?</p> <p>Does the proposal respect important features of the site or building, or both?</p> <p>Does the proposal show innovation and imagination in its relationship to the site or building, or both?</p>	<p>The signs are appropriately sized and sited with consideration to the existing and proposed built form of the school and surrounds.</p> <p>The proposed sign will not protrude above the building line and will utilise modern technology and be built with contemporary materials that are consistent with the current and future context of the site.</p>	Yes
<p><i>6 Associated devices and logos with advertisements and advertising structures</i></p> <p>Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?</p>	All required safety devices will be concealed within the signage structure.	Yes
<p><i>7 Illumination</i></p> <p>Would illumination result in</p>	The proposed sign on the awning above the proposed new entrance from Bay Road and on corner of Bay Road	Yes

ASSESSMENT CRITERIA	COMMENT	COMPLIES
<p>unacceptable glare?</p> <p>Would illumination affect safety for pedestrians, vehicles or aircraft?</p> <p>Would illumination detract from the amenity of any residence or other form of accommodation?</p> <p>Can the intensity of the illumination be adjusted, if necessary?</p> <p>Is the illumination subject to a curfew?</p>	<p>and Pacific Highway are proposed digital signs with non-flashing illumination at low level. The illumination will not result in unacceptable glare for pedestrians, vehicles or residences. The illumination will be in accordance with relevant Australian Standards. LCI confirm the technical parameters of the illuminated signage, including control strategy for dimming and switching off during curfew times will be specified by the signage provider and will comply with the requirements of AS/NS 4282 and other relevant requirements. This include compliance to AS/NZD 4282 tables 3.2, 3.3 and 3.5 for maximum values of lighting technical parameters for luminaire within an environmental classification zone of A3 or A4.</p>	
<p><i>8 Safety</i></p> <p>Would the proposal reduce the safety for any public road?</p> <p>Would the proposal reduce the safety for pedestrians or bicyclists?</p> <p>Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?</p>	<p>The proposed signs will not interfere with pedestrian or vehicular sightlines as they will comply with all relevant Australian Standards and codes. The signs will not distract motorists as will be located well away from the street verge and will not resemble a traffic sign or contain a facsimile of a traffic sign.</p>	Yes

5.10. North Sydney Local Environmental Plan 2013

The NSLEP is the primary environmental planning instrument applying to the site.

5.10.1. Zoning and Permissibility

The site is zoned SP2 Infrastructure (Educational Establishment) pursuant to the land use table in the NSLEP.

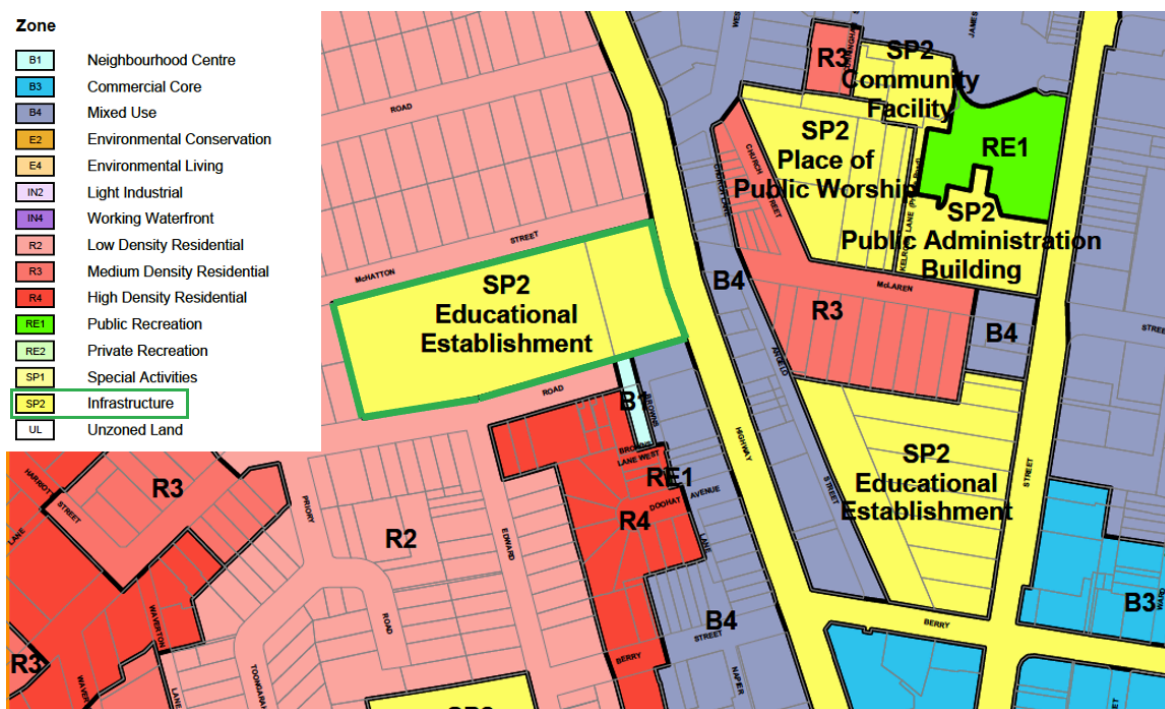


Figure 82: Extract of the land use zoning map, site boundaries outlined in green (Source: NSW Legislation)

The proposal is defined as upgrades to an existing educational establishment as follows:

educational establishment 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

The proposed upgrades to the existing education establishment is permitted with development consent in the SP2 Infrastructure zone.

5.10.2. Objectives of the Zone

The proposal is consistent with the objectives of the SP2 Infrastructure zone as follows.

Table 9: Consistency with zone objectives

OBJECTIVE	RESPONSE
To provide infrastructure and related uses.	The proposal involves upgrades to the existing education infrastructure at the site.
To prevent development that is not compatible with or that may detract from the provision of infrastructure.	To proposal is consistent with this objective.

5.10.3. Other Provisions

Consideration of the other relevant provisions of the NSLEP are assessed in the below table.

Table 10: Compliance with the NSLEP

CLAUSE	COMMENT
Clause 4.3 Height of buildings	<p>The site has a maximum height development standard of 8.5 metres. The proposal is mostly compliant with the 8.5 metres standard, however, exceeds the standard due to the steep fall in topography of the land toward Bay Road at:</p> <ul style="list-style-type: none"> At southern edge of the Building J roof by 2.6 metres (RL94,100); At south-west corner of Building I by 3.4 metres (RL95,200); and At southern edge of the Building I by 3.0 metres (RL95,200). <p>Refer to the Architectural Plans prepared by Fulton Trotter (Appendix B).</p> <p>Pursuant to Clause 42 of the ESEPP, 'development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted'. Notwithstanding, "without prejudice" justification for the proposed height variation is provided following this table in Section 5.10.4</p>
Clause 4.4 Floor space ratio	The site is not subject to a maximum floor space ratio, hence Clause 4.4 does not apply.
Clause 5.10 Heritage conservation	As assessed by Curio Projects in Appendix T, the proposal is consistent with Clause 5.10 of the NSLEP.
Clause 5.21 Flood planning	The site is not flood affected, hence Clause 5.21 does not apply.
Division 1 North Sydney Centre	The site is not located in the North Sydney Centre; therefore Division 1 does not apply.
Clause 6.10 Earthworks	As detailed in the Stormwater Management Plan (Appendix H) and HIS (Appendix T), the proposed earthworks required to accommodate the upgrades will not detrimentally impact environmental processes, neighbouring uses or heritage items.
Clause 6.13 Vehicular access	The proposal does not propose a driveway or vehicular crossing within a road reserve, hence Clause 6.13 does not apply.
Clause 6.15 Airspaces operations	The proposal does not penetrate the Limitation or Operations Surface Level for the Sydney Kingsford Airport. Consent is not required for the Commonwealth.

5.10.4. Justification of Proposed Height Variation

The maximum height standard that applies to the site is 8.5 metres. As discussed above the proposal exceeds the height standard at:

Upgrades to North Sydney Public School

- At southern edge of the Building J roof by 2.6 metres (RL94,100);
- At south-west corner of Building I by 3.4 metres (RL95,200); and
- At southern edge of the Building I by 3.0 metres (RL95,200).

Refer to the following figures and the Architectural Plans prepared by Fulton Trotter (Appendix B).

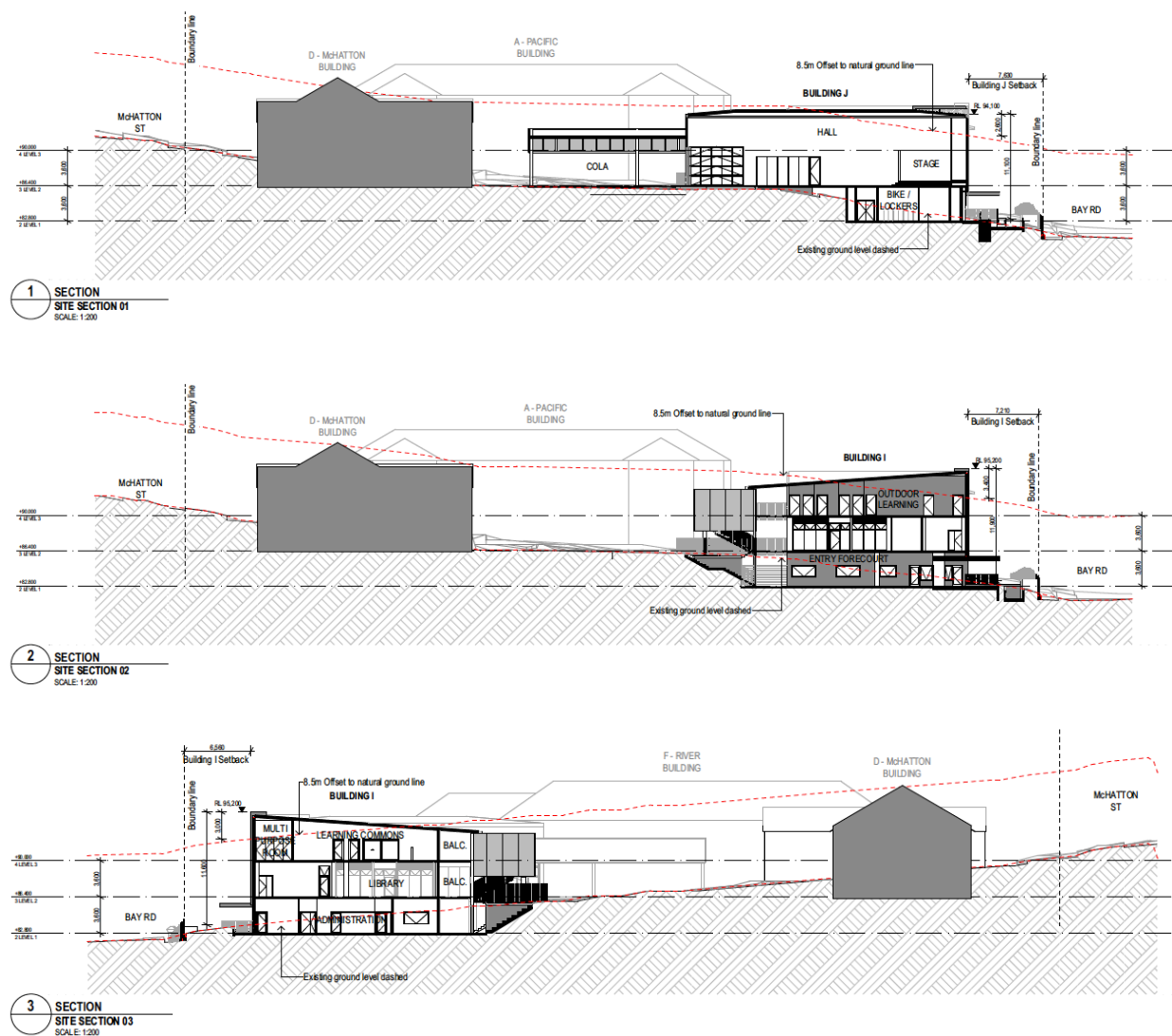


Figure 83: Extract of sections illustrating height variation (Source: Fulton Trotter)

‘Compliance’ Unreasonable and Unnecessary

Consistency with Development Standard Objectives

The method for compliance being unreasonable and unnecessary is to determine if consistency with the objectives of the standard is achieved notwithstanding the variation. The proposal is consistent with the objectives of Clause 4.3, as

detailed in the below table.

Table 11: Consistency with objectives of clause 4.3 NSLEP

OBJECTIVE	COMMENT
(a) to promote development that conforms to and reflects natural landforms, by stepping development on sloping land to follow the natural gradient	The design of the new buildings has given due consideration to the steep change in topography occurring from the mid-portion of the site to Bay Road. The proposal has been designed to respond to/reflects the natural landform on the site, with the built form transitioning/stepping to Bay Road.
(b) to promote the retention and, if appropriate, sharing of existing views	The location of the buildings on-site does not impact views.
(c) to maintain solar access to existing dwellings, public reserves and streets, and to promote solar access for future development	As illustrated in the shadow diagrams prepared by Fulton Trotter, the orientation of the proposed built form and location of the buildings on the existing school site, mean shadows are minimal in mid-winter, falling onto the Bay Road northern footpath and portions of the road at 12.00pm and 3.00pm. This impact is considered to be minor and acceptable.
(d) to maintain privacy for residents of existing dwellings and to promote privacy for residents of new buildings	As discussed in Section 7.1.2 of this EIS, the privacy of nearby residents is maintained. Existing and proposed landscaping screen the proposal.
(e) to ensure compatibility between development, particularly at zone boundaries	The works are proposed at an existing school which is a long-standing use in the area. The school and hence proposed works are compatible with surrounding development.
(f) to encourage an appropriate scale and density of development that is in accordance with, and promotes the character of, an area	As assessed in Section 7.1.2 of this EIS, the proposed buildings are of an appropriate scale and form and commensurate with the existing and desired future density of the area.
(g) to maintain a built form of mainly 1 or 2 storeys in Zone R2 Low Density Residential, Zone R3 Medium Density Residential and Zone E4 Environmental Living.	The site is zoned SP2 Infrastructure, objective (g) is not applicable.

Consistency with Zones Objectives

Table 9 of this EIS above demonstrates the proposal is consistent with the SP2 Infrastructure zone objectives. It is noted that the proposed variation to the height of buildings development standard does not conflict with the SP2 Infrastructure (Educational Establishments) zone objectives.

Sufficient Environmental Planning Grounds

The environmental planning grounds to justify the departure of the height of buildings standard are as follows:

- The site is constrained by its topography as established in Section 2.7 of this EIS. In order to create appropriate levels for the new buildings and deliver an appropriate relationship to the existing play areas and buildings on the site, a balance of excavation and fill is required to accommodate the new buildings. This result in a contravention of the height standard for parts of the new buildings.
- The portions of the building which contravene the standard relate to roof form, a small portion of outdoor learning, hall and multi-purpose room. These areas do not significantly contribute to the bulk of the buildings as viewed from key vantage points in the locality.
- The variation is isolated to the southern edge of the new buildings. The roof form and building materiality in general are complementary to the existing heritage features of the site and area and the desired future character for the precinct.
- The non-compliant portions of the building do not result in any unacceptable overshadowing impacts on adjoining sites or the school grounds. The proposed shadows fall only onto the northern Bay Road footpath and Bay Road itself and do not adversely impact proposed outdoor landscape areas or any nearby residential amenity.

Conclusion

The proposed variation to the height of buildings standard will enable positive articulation of the roof at the southern edge of the new buildings and create a consistent built form to the Bay Road frontage. The contraventions occur at the southern edge of Buildings J and I. The proposed design, notwithstanding the height variation, is considered to result in a better planning outcome.

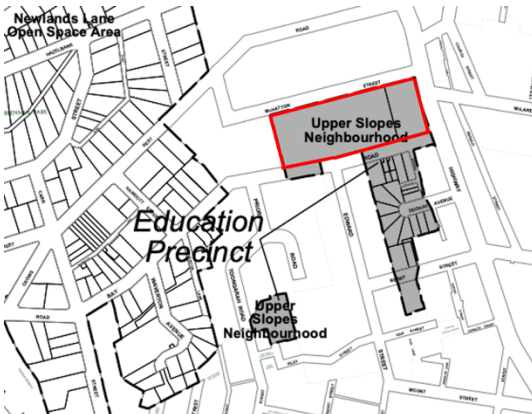
As the development, as described above, is consistent with the objectives of the standard and the objectives of the zone, the consent authority can be satisfied that the development is in the public interest.

5.11. North Sydney Development Control Plan 2013

The applicable NSDCP provisions relevant to the proposal are considered in the table below. In summary, the proposal is generally compliant with the applicable provisions.

Table 12: Consistency with NSDCP

PROVISION	PROPOSAL
Part B- Development Controls	
Section 9 – Advertising and signage	Fulton Trotter has prepared an indicative signage proposal for the school. This comprises school identification signs on the new building in conjunction with the new pedestrian entrance. An assessment is made against SEPP64 in Section 5.9.8 of this EIS. The NSDCP identifies signage in Waverton is to consist of small scale business identification signs, with the existing character retained. The proposed signage is compatible with the character established in the locality.
Section 10 – Car parking and transport	Ason Group has undertaken an assessment of the proposed upgrades against Section 10 of the NSDCP. It is noted that there are no changes to the existing carpark in this SSDA. The SSDA seeks consent for an additional seven staff. The existing carpark has 50 spaces including two accessible spaces. The NSDCP stipulates 1 space/6 staff for educational establishments. Even with the additional staff, the current parking arrangements well exceeds the NSDCP requirement of 14 spaces.
Section 11 – Construction	The proposed construction hours detailed in consultant reports and Section 3.11 of this EIS are consistent with Table B-22.1 of the NSDCP. Turner & Townsend has prepared

PROVISION	PROPOSAL
management	a Preliminary Construction Environment Management Plan (Appendix V). This seeks to mitigate construction impacts being consistent with Section 11 of the NSDCP.
Section 12 - Access	Philip Chun has undertaken an access assessment in accordance with the Disability (Access to Premises) Standard 2020 and the relevant Australian Standards. The proposal is capable of achieving compliance as demonstrated in Appendix Q.
Section 13- Heritage and conservation	<p>In accordance with Section 13 of the NSDCP this SSDA is accompanied by:</p> <ul style="list-style-type: none"> An Aboriginal Archaeological Assessment (AAA) (Appendix S); An Aboriginal Cultural Heritage Assessment (ACHA) (Appendix S); and A HIS prepared by Curio Projects (Appendix T). <p>The design of the new buildings takes cues from the heritage qualities of Buildings A, D and F. The built form comprises materiality and is designed and articulated to complement the conservation qualities of Bay Road and nearby heritage items. The new entrance requires amendments to the heritage listed Crows Nest House fence on Bay Road. Curio Projects confirm the impact is minor in weighting the impact versus the advantage of a DDA compliant access point for the school, to facilitate equitable access.</p>
Section 14- Contamination and hazardous materials	Tech Tetra Coffey has prepared a PSI in Appendix J. This confirms the site can be made suitable having regard to SEPP 55. Site investigations for a DSI will commence shortly and form part of the SSDA in the RtS stage. The undertaking of these investigations was delayed due to the COVID-19 lockdown affecting Sydney which included restrictions on construction/investigations.
Section 17- Sediment and erosion control Section 18- Stormwater management	Aurecon has prepared a Stormwater Management Report and Plans (Appendix H). The report confirms the management strategy has addressed and met the requirement of Section 17 and 18 of the NSDCP, NS Council Infrastructure Specification Guide, NS Council Performance Guide, NS Council Erosion and Sediment Control for Urban Development.
Part C- Character Statements	
Section 10- Waverton/Wollstonecraft Planning Area	<p>The site is located in the Waverton/Wollstonecraft Planning Area, specifically in the education precinct and upper slopes neighbourhood, see below figure.</p>  <p>Figure 84: Extract of upper slopes neighbourhood, site outlined in red (Source: NSDCP)</p> <p>The proposal responds to the significant elements of the neighbourhood by:</p>

PROVISION	PROPOSAL
	<ul style="list-style-type: none"> Upgrading the facilities at the school which is identified as an “icon” in the NSDCP; Providing active, passive and educational open space areas on-site; Responding to the fall of the site, particularly in the buildable area; and Maintaining and enhancing the tree canopy cover at the site. <p>The proposal is consistent with the desired future character by providing upgraded facilities for the existing educational establishment and in doing so, providing communities facilities in the library and hall. The built form addresses Bay Road and improves activation of the Bay Road public domain.</p>

5.12. Draft North Sydney Development Control Plan 2020

Council is proposing amendments to the NSDCP 2013. Council publicly exhibited the proposed changes to the NSDCP in 2020. The chapters relevant to the proposal which are subject of amendments by Council include:

Part B:

- Section 10- Car parking and transport
- Section 11- Traffic guidelines for developments (proposed to become Construction Management)
- Section 12- Access
- Section 13- Heritage and conservation
- Section 14- Contamination and hazardous building materials
- Section 16- Tree and vegetation management
- Section 19- Waste management

The proposal remains consistent with the relevant provision of the draft NSDCP 2020.

5.13. Development Contributions

The site is covered by the North Sydney Local Infrastructure Contributions Plan 2020. The purpose of the Plan is to raise funds from private, commercially driven developments to be put towards the cost of public facilities and infrastructures which are burdened by those developments. The imposition of a levy from the applicable contribution plan on the DoE's proposed public infrastructure would be contrary to the public purpose of the Plan, particularly as the development provides upgrades to existing public educational infrastructure for the North Sydney community.

Whilst Council's Contribution Plan does not expressly exclude Crown Developments or educational establishment from the payment of the relevant contribution, an exemption is considered appropriate in this case as discussed in further detail below. The DoE is a public authority which relies on government funding to deliver new school infrastructure for the community and public. Levying Council contributions from the DoE to fund infrastructure (including school infrastructure) is contrary to the purpose of a contribution plan in the first instance.

The site is not subject of any Voluntary Planning Agreements.

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 the DoE 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. Contributions occur by way of conditions of consent. Therefore, neither Council nor DPIE can impose conditions relating to contributions without DoE's consent.

To impose a contribution on this project, DPIE would need to have the agreement of the Minister. Consideration should be given to the Crown's role in providing a community service (not provided for by Council). It is our view that given the public benefits of the proposal, that DPIE not require development contributions to be payable. This is consistent with approvals for upgrades to existing schools and new primary schools such as:

- Alexandria Park Community School (SSD 8373)
- Parramatta West Public School (SSD 8790)
- Jordan Springs Public School (SSD 9354)
- Fort Street Public School (SSD 10340)

6. STAKEHOLDER CONSULTATION

Consultation has been undertaken in accordance with the Department's consultation policy (Planning and Delivery School Infrastructure NSW Public Consultation Policy) which provides a framework to actively engage the community and other stakeholders in relation to the planning of major projects. Stakeholders will continue to be engaged during the assessment of the SSDA and post approval.

6.1. Community Engagement

School Infrastructure NSW (SINSW) on behalf of the DoE conducted community engagement for the project and this was complemented by engagement activities led by Elton Consulting. This is documented in detail in Appendix L. Consultation included:

- An online community survey undertaken by SINSW in June 2020 to identify community values for the project. We note this was undertaken prior to the issue of the SEARs but only shortly prior; and
- Targeted engagement with key stakeholders to better understand specific school user requirements and validate perceived impacts and benefits. We note this occurred post issue of the SEARs.

The consultation outcomes are discussed in Appendix L. The feedback provided during community consultation has informed the SSDA design.

6.2. Public Authority Engagement

DoE and the project team undertook consultation with multiple government stakeholders during the preparation of the SSDA including:

- Department of Planning, Industry and Environment
- Council
- TWG including Transport for NSW and Council Traffic Engineers
- Energy, Environment and Science Group
- Sydney Water
- Ausgrid
- Aboriginal stakeholders
- NSW Government Architect through NSW State Design Review Panel
- Project Reference Group
- Commonwealth Department of Agriculture, Water and Environment

The following sections provides a summary of the outcomes of consultation.

6.2.1. DPIE

The DPIE were consulted during the SEARs process. The EIS directly responds to the contents of the SEARs issued on 24 December 2020. Dimitris Gotsis, Senior Planning Officer, DPIE attended the SDRP on 4 August 2021. The DoE will liaise with the DPIE during the assessment of the subject SSDA to respond to submissions, address request(s) for information and review the draft conditions of consent prior to approval.

6.2.2. Council

GYDE Consulting, SINSW and Turner Townsend met with Executive Planning Advisor, on Thursday 29 July 2021 and

Tuesday 17 August 2021.

The meeting on Thursday 29 July 2021 involved providing an overview of the project, current SSDA status and gave the Council representative an opportunity to flag key items for consideration in the preparation of the SSDA. In summary, Council was supportive of the proposed upgrades. Points of discussion included:

- Provision of mechanical ventilation and location of plant equipment, in particular screening of these services from the streetscape. No services are visible from the street as they are located in 1 level of Building J;
- Increased student and staff numbers and consequential amenity and traffic impacts;
- Heritage impacts of the proposed built form. Council noted their heritage officer will review the proposal and provide feedback in the RtS;
- Tree loss and sufficient replacement planting; and
- Construction management.

In the meeting on Tuesday 17 August, Fulton Trotter presented the SSDA design. Council remained supportive. Points of discussion included:

- Provision of a barrier on Bay Road footpath to stop students walking onto Bay Road;
- Construction management including an exclusion zone on Bay Road;
- Proposed drop-off and pick-up on Bay Road and approvals required from Council;
- Building materiality; and
- Heritage feedback. Council requested plans to provide heritage feedback. Council advised this will take a couple of weeks, though could not be guaranteed. Due to time constraints, feedback could not be sought prior to lodgement. Council's heritage officer will have an opportunity to comment during the formal exhibition period.

Refer to the meeting minutes in Appendix Y.

The project team considered the feedback provided by Council and in response, the SSDA documentation sufficiently addresses each of the items raised:

- The Architectural Plans (Appendix B) illustrate plant located in lower level of the new buildings and not visible from the public domain;
- Section 7 of this EIS and Appendix N address amenity and traffic;
- This SSDA is accompanied a HIS which confirms the proposal is acceptable with regard to heritage impacts;
- The Landscape Plan (Appendix C) includes sufficient replacement planting, which increases the tree canopy cover of the site;
- The PCEMP (Appendix V) includes an exclusion zone on Bay Road.

6.2.3. Transport Working Group

A TWG was formed, as is typical for SINSW projects. TfNSW, Council's Traffic Engineer, DoE's Traffic Engineer and Ason Group formed part of the TWG. Three meetings were held prior to the submission of the SSDA on 22 July 2021, 9 August 2021 and 25 August 2021. The minutes of the meetings are attached in Appendix Y. Ason Group's Transport and Accessibility Assessment (Appendix N) responds to the matters raised during the meeting. In addition, the report was issued to the TWG for comments. No feedback was received from TfNSW prior to SSDA lodgement and Council advised the high level review did not identify any major concerns.

6.2.4. Energy, Environment and Science Group

GYDE Consulting attempted on Friday 16 July 2021, Tuesday 3 August 2021 and Wednesday 11 August to engage with the Energy, Environment and Science Group (EES) to discuss the proposal and seek feedback, however no response was received. It is SINSW's and GYDE Consulting's experience on other school projects that EES typically wait until formally requested by DPIE to provide comment during the exhibition period. We note that a BDAR Waiver has been issued by DPIE (Appendix F) and the site is not flood affected (Appendix H).

6.2.5. Sydney Water

LCI have submitted a pressure and flow application to Sydney Water to investigate hydraulic demands for the water main. LCI are awaiting pressure and flows results. LCI will continue engaging with Sydney Water as required.

6.2.6. Ausgrid

LCI submitted DBYD requests to understand the location of existing utility infrastructure. This has informed the proposed utilities to support the upgrades. Ausgrid will continue to be engaged as required during detailed design.

6.2.7. Aboriginal Stakeholders

Stakeholder consultation for the project commenced in line with the *Consultation Requirements* for the Department of Environment, Climate Change and Water 2010) and the SEARs dated 24 December 2020. The *Consultation Requirements* outline a four-stage consultation process which includes:

- Stage 1- Notification of the project proposal and registration of interest;
- Stage 2- Presentation of information about the proposed project;
- Stage 3- Gathering information about cultural significance; and
- Stage 4- Review of draft cultural heritage assessment report.

Austral Archaeology document the consultation process in detail in Appendix S. In summary:

- Stage 1- Several bodies were notified on 5 August 2020, an advertisement was placed in the *Mosman Daily* to run on 13 August 2020 and letters were written to relevant agencies on 5 August 2020 and a search made of the Native Title Tribunal on the same day;
- Stage 2- All registered Aboriginal stakeholders were provided with information outlining the proposed works on 3 September 2020;
- Stage 3- On 3 September 2020, Austral provided each Aboriginal stakeholder with a copy of the project methodology and an update of the notification letter was sent to all registered Aboriginal stakeholders on 29 March indicating the project was still ongoing and further information in the form of stage 4 will be provided soon; and
- Stage 4- The final ACHA and AAA were sent to all registered Aboriginal stakeholders on 7 July 2020. The review period lasted 28 days and finished on 4 August 2021. Two replies were received. Lilly Carrol of the Didge Ngunawal Clan stated their agreement to the project. Kadibulla Khan from the Kamilaroi-Yankuntjatjara Working Group requested further investigation within the whole surrounding area as an opportunity to capture their rich cultural history. Austral Archaeology responded that given the extensive disturbance of the site no further works are recommended. Refer to Appendix S for further detail.

In addition, Fulton Trotter has undertaken initial consultation with local Aboriginal groups including the Metropolitan Aboriginal Land Council and the Gawura Aboriginal Education Consultative Group. As a result, a strategy has been developed to facilitate the development of an appropriate response to Connecting with Country. This is outlined in

further detailed in the Architectural Design Report (Appendix B) and minutes of these meetings attached in Appendix Y.

To further enhance the Aboriginal community consultation processes, Tocomwall Pty Ltd has undertaken a Connection with Country (CWC) assessment (Appendix CC). The purpose of the strategy is:

- Consider cultural connection to the landscape of the site where the proposal is to take place;
- Document the cultural heritage of the place through time; and
- Recommend approaches for the architect and designers to incorporate Aboriginal cultural meaning and connectedness to place in the design and build of the upgrade work to the school.

The methodology involves:

- Stage 1: Data collection
- Stage 2: Site visit
- Stage 3: Concept design
- Stage 4: Consultation period
- Stage 5: Concept design portfolio
- Stage 6: Preparation of design options
- Stage 7: CWC final report

Stage 1 and 3 have been complete. Stage 2 was unable to occur due to the COVID-19 lockdown. Tocomwall is currently on hold at Stage 4 and is waiting approval from SINSW to issue a community consultation engagement letter.

During Stage 3 a yarning circle was developed and is incorporated in the Architectural Plans (Appendix BB). The design element aims to create a culturally immersive, inclusive and respectful settling that allows for Aboriginal culture to be transmitted from one generation to another through contemporary story and truth telling practice.

The CWC will continue to be developed during the SSDA assessment process and post approval.

6.2.8. NSW Government Architect through SDRP

The NSW Government Architect was consulted via the State Design Review Panel (SDRP) in a meeting held on Wednesday 4 August 2021. The following table provides an overview of the consultation undertaken and the response to each matter raised by the SDRP.

Table 13: GANSW via State Design Review Panel Consultation

CONSULTATION	SSDA RESPONSE
<p>Date: Wednesday 4 August 2021</p> <p>Format: SDRP Meeting</p> <p>Attendees: GANSW, DPIE, SINSW, T&T, Fulton Trotter, Taylor Brammer Landscape Architects, GYDE Consulting</p> <p>Summary of Minutes:</p> <p>Elements supported:</p> <ul style="list-style-type: none"> • Targeting 4-star Green Star; • Contextual response for its site planning including retention of Buildings A, D and F, response to topography, maintaining and opening up the central heart of the courtyard, establishing a strong relationship with heritage context, new Bay Road entry and 	<p>Fulton Trotter has provided a detailed response to the SDRP minutes in Appendix B.</p>

CONSULTATION	SSDA RESPONSE
<p>aligning entry with central axis created by Buildings A, D and F.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Continuing developing Connecting with Country response; Development of Yarning Circle informed by engagement; Further development the Bay Road entry ramp and entry area to optimise accessibility and amenity; Clarify the size and scale of the space between the two new wings; Continue developing the site-wide landscape strategy; Optimise the courtyard; Façade treatment; Roof design; and Retention of the project team through to delivery. <p>Refer to Appendix Y for the detailed minutes.</p>	

6.2.9. Project Reference Group

The DoE formed a Project Reference Group for the upgrades to the existing school. The purpose of the meetings was to update various stakeholders on the project progress and SSDA preparation. Refer to Appendix Y for a summary of the meeting dates and attendees.

6.2.10. Commonwealth Department of Agriculture, Water and Environment

Appendix F provides an assessment of the matters under the EPBC Act and concludes that no significant impacts will occur to species that occur or may occur on the site. With this said, consultation to the Commonwealth is not required.

6.2.11. Consultation Conclusion

In summary, this SSDA has undertaken consultation having regard to the SEARs issued on 24 December 2020. The feedback received during the consultation process has informed this EIS and the accompanying documentation. As required, agencies and the community will continued to be engaged with post SSDA submission and approval.

7. ENVIRONMENTAL ASSESSMENT

This chapter describes and assesses the key environmental risks and impacts of the proposal. The risks and impacts have been assessed having regard to the following:

- Scope of the proposal
- The SEARs
- Outcomes and recommendations from specialist studies
- Consultation outcomes with the community and public authorities
- Relevant legislative requirements
- Additional information and research

7.1. Built Form and Urban Design (SEAR 2)

7.1.1. SEAR

Address

- *the height, density, bulk and scale, setbacks and interface of the development in relation to the surrounding development, topography, streetscape and any public open spaces.*
- *design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colour palette.*
- *how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development.*
- *how good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.*
- *how design quality will be achieved in accordance with Schedule 4 Schools – design quality principles of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 and the GANSW Design Guide for Schools (GANSW, 2018).*
- *how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.*

Provide

- *a detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development.*
- *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.*

7.1.2. Assessment

Height, Density, Bulk, Scale, Visual Massing and Suitability Regarding Context

A detailed site and context analysis of the proposal has been prepared by Fulton Trotter and accompanies this EIS in Appendix B. In terms of context, the site is surrounded by a mix of uses and built forms with varying characteristics. As set out earlier, in this EIS, the Pacific Highway adjoins the site directly to the east, with a mix commercial, residential towers on the eastern side of the road and beyond is Monte Sant' Angelo Mercy College. To the south of the site, is low and medium density residential development and an educational precinct comprising The Shore School and ACU. To the south-east is the North Sydney CBD which is dominated by high-rise development and mixed uses. To the west

of the site, is a mix of low and medium density residential development which is heritage affected including heritage items and various conservation areas. The northern side of McHatton Street predominantly contains dwelling houses. In summary, the locality is well-established, mixed and accessible, being serviced by public transport, connections and facilities.

The proposed new buildings have been designed to not only respond to the contours of the site, but to the surrounding context. We note the following:

- The existing buildings on the site are located adjacent to the west, north and east boundaries. The proposed new buildings and upgrades to Building G are located adjacent to the south boundary. The siting of the new buildings includes a 6-metre setback to Bay Road commensurate with Building G and residential development to the west of the site. This setback facilitates new planting between the new building and the boundary reflecting the angophora trees which sit on the western portion of the south school boundary.
- As depicted in the Architectural Plans (Appendix B) the proposal embodies clear site planning having regard to the form and location of Buildings A, D, F and G. In doing so, the new buildings create a legible school entrance from Bay Road. The separation of the new buildings from those existing ensures daylight and natural ventilation is maintained and the perceived bulk of the mass, particularly from Bay Road, is minimised. Acoustic privacy is afforded through the 6 metre setback from Bay Road and the location of the new building sufficiently away from residential dwellings to the west;
- The positioning of the new buildings allows them to accommodate the required uses in a flexible layout and open up the central courtyard to improve play and outdoor learning space;
- The proposed linear building along the Bay Road frontage is mostly three storeys in height and reducing at the western end, which is the most prominent vantage point given the topography of the subject part of the site along Bay Road. The new buildings are mostly compliant with the 8.5 metre height limit. Given the steep fall in topography from the mid-line of the site to Bay Road non-compliances occur on the southern edge of the new buildings. Notwithstanding the variation the proposal is consistent with the mass and form of existing buildings on the site and surrounding context. The three-storey proposal optimises ground floor play space and facilitates the opening up of the courtyard to create a more usable space than is currently present on-site. The proposed height does not result in adverse environmental impacts. Refer to Section 5.10 of this EIS for detail; and
- As can be seen from the below figure, the new buildings have been designed to address Bay Road and do not present as a single dominant mass, by virtue of the linear nature of the built form and the use of highly varied materials, colours (light and dark for contrast) and finishes, recessed elements, a glazed connection between the two (2) built forms and existing and proposed landscaping. All of these design and landscape measures assist in creating a high level of articulation and visual interest and appropriately ameliorate the perceived visual mass of the built form along Bay Road. As noted above, the built form also “steps” to the west to follow the contours of the site.



Figure 85: Extract of Bay Road frontage/southern perspective (Source: Fulton Trotter)

- A significant benefit of the proposal is the provision of a new pedestrian (and DDA compliant) access point from Bay Road. This provides a direct connection to the school administration. The access area at the Bay Road frontage further assists in breaking up the built form mass of Building J and I.
- The materiality and articulation of the elevations has been inspired by the detailing of the existing heritage buildings on the site and simultaneously sought to create a contemporary built form which responds sensitively to the natural and built form of the surrounds. Refer to the following figure prepared by Fulton Trotter which demonstrates the design intent of the approach to built form, heritage reference and response to context.

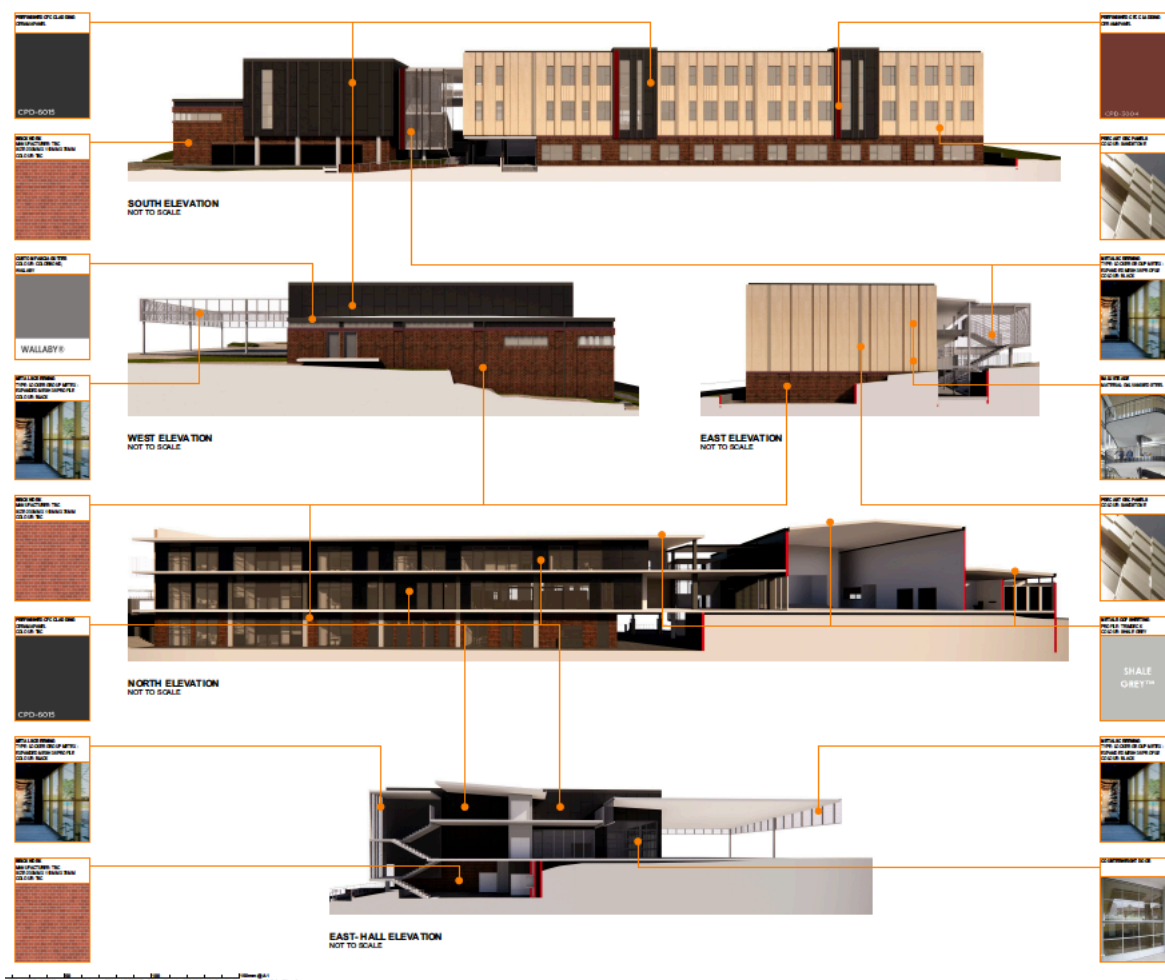


Figure 86: Elevations depicting proposed materials and finishes (Source: Fulton Trotter)

Design Quality (Generally)

The proposal enhances the design quality of the school, elevates the school to Core 35 (up to 1,200 students), providing flexible, adaptable and fit for purpose learning spaces. In doing so, the proposal:

- Improves the central courtyard;
- Provides an equitable and accessible entry point from Bay Road connecting to the proposed buildings and administration;
- Creates visible and physical link to facilitate easy movement of people through the site;
- Provides a strong street presence and additional (main) entrance to the school from Bay Road;
- Enhances the landscape qualities of the site; and
- Provides dual community and school facilities in the hall and library (noting any community use would remain as ancillary).

The design has been informed by integration of connecting with country. This will continue to be developed as the design progresses.

Design Quality Compliance

The Architectural Design Report (Appendix B) demonstrates the proposal's consistency with the ESEPP Design Quality Principles.

CPTED

The proposal promotes implements the principles of CPTED. Refer to Section 4 for a detail response.

External Amenity

The proposed upgrades deliver a high degree of external amenity on the site by:

- Creating new spaces with a strong connection to external spaces by allowing new buildings to flow onto the central courtyard space;
- Increasing the tree canopy cover of the site;
- Providing a series of external spaces which support the evolving needs of students including large informal gathering spaces, a formal tiered teaching space and more intimate small group spaces; and
- Minimising visual amenity, privacy and overshadowing impacts as discussed in this section of the EIS.

The proposal has been designed to be flexible and adaptable.

Internal Amenity

The proposed upgrades deliver a high degree of internal amenity through the creation of new teaching spaces, school administration and hall with a high level of natural daylight and ventilation. The architectural design has sought to orientate these space as to benefit from the northern sun. In doing so, opens up the central courtyard, optimising play space and elevating its quality to facilitate education, play and physical activity.

View Loss

The north-west corner of the site at the staff car park benefits from interrupted views of part of the Barangaroo Skyline and Anzac Bridge, see below image.



Figure 87: Views from the staff car park in the north-west of the site (Source: GYDE)

Most of this view is screened by existing vegetation. Given the fall of the site to Bay Road and existing development on Bay Road the city skyline is not visible. The proposal causes no impact to this view, given the location of the new buildings further east at the site.

The site sections in Appendix B demonstrate that the proposed building is lower in form than the existing Buildings A, D and F from the McHatton Street frontage. Fulton Trotter consider the proposed top of roof of the new buildings may just be visible from some houses on McHatton Street, refer to the below figure. It is considered that any impacts on the views from the houses on McHatton Street would be very minimal and filtered through the existing trees.

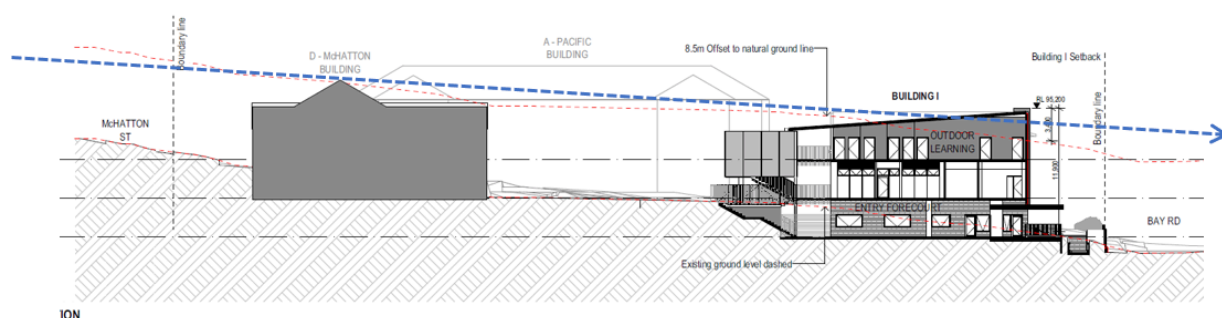


Figure 88: Extract of section depicting sight line from dwellings on McHatton Street (Source: Fulton Trotter)

Visual Impact

Fulton Trotter has undertaken a detailed visual impact analysis in Appendix B. It considers the visual impact of the proposed built form, from the following key vantage points:

- View 1- Corner of Bay Road and Pacific Highway
- View 2- End of Edward Street
- View 3- South-west corner of the school on Bay Road

Refer to the below figures.

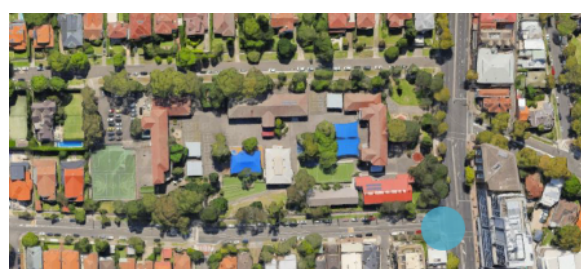


Figure 89: View 1 (Source: Fulton Trotter)

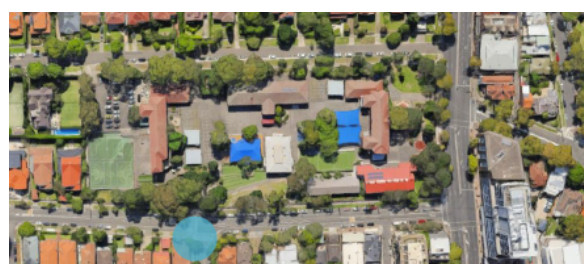


Figure 90: View 2 (Source: Fulton Trotter)

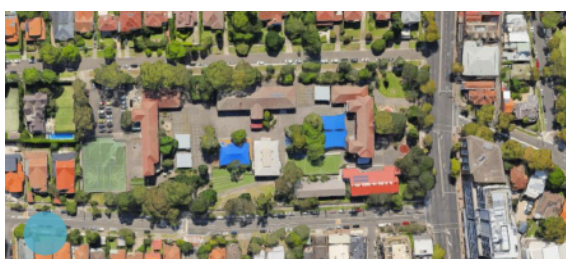


Figure 91: View 3 (Source: Fulton Trotter)

The above images demonstrate the visual impact of the proposal as viewed from Bay Road which includes residential development.

With regard to the above, we note the following:

- View 1: The proposed buildings are compatible with Building G in mass and scale as viewed from the corner of Bay Road and the Pacific Highway. While the height of the new buildings presents as a minor increase beyond

- existing built form on the site, it sits lower than the existing tree line on Bay Road and is therefore well screened.
- View 2: Due to the fall of the land, any built form on this part of the site would be more visually dominant. Taking that into consideration, the proposed built form has been designed to “step” with the fall of the land and the facades have been detailed to incorporate a mix of colours, finishes and vertical and horizontal elements to assist in breaking up the massing as far as practically possible without impacting the functional requirements of the internal spaces. Further the buildings are well screened by the existing stand of mature angophora trees and other existing trees within the streetscape.
 - View 3: The volume of the proposed building is generously screened by the existing vegetation and does not present as a visually intrusive built form from this vantage point.

Visual Impact (Internal Amenity)

The proposal includes sufficient separation with existing buildings on the site and proposes compatible materials taking cues from the existing heritage elements on the site. Internally the open space for students is significantly improved. Taylor Brammer Landscape Architects has sought to create various, interconnected zone which encourage physical activity, social connectivity and learning opportunities.

On the basis of the above, the visual impact of the proposed built form is assessed as acceptable, resulting in a high quality development that reasonably responds to the site’s context, surrounds and heritage values.

Privacy

Given the location of the proposed works on-site (and lack of direct adjacency to any residential or other sensitive uses to the north, west or east), the only potential privacy impacts that are a matter for consideration relate to the existing residential uses opposite the site and on the southern side of Bay Road, east of Edward Street. Privacy is mitigated through the existing and proposed planting on the school site. In addition, low and medium density development on the southern side of Bay Road is screened by street trees as depicted in Section 2.5 of this EIS. The proposed buildings are orientated north-south reducing opportunities for overlooking. The proposed buildings are separated a minimum 25 metres.

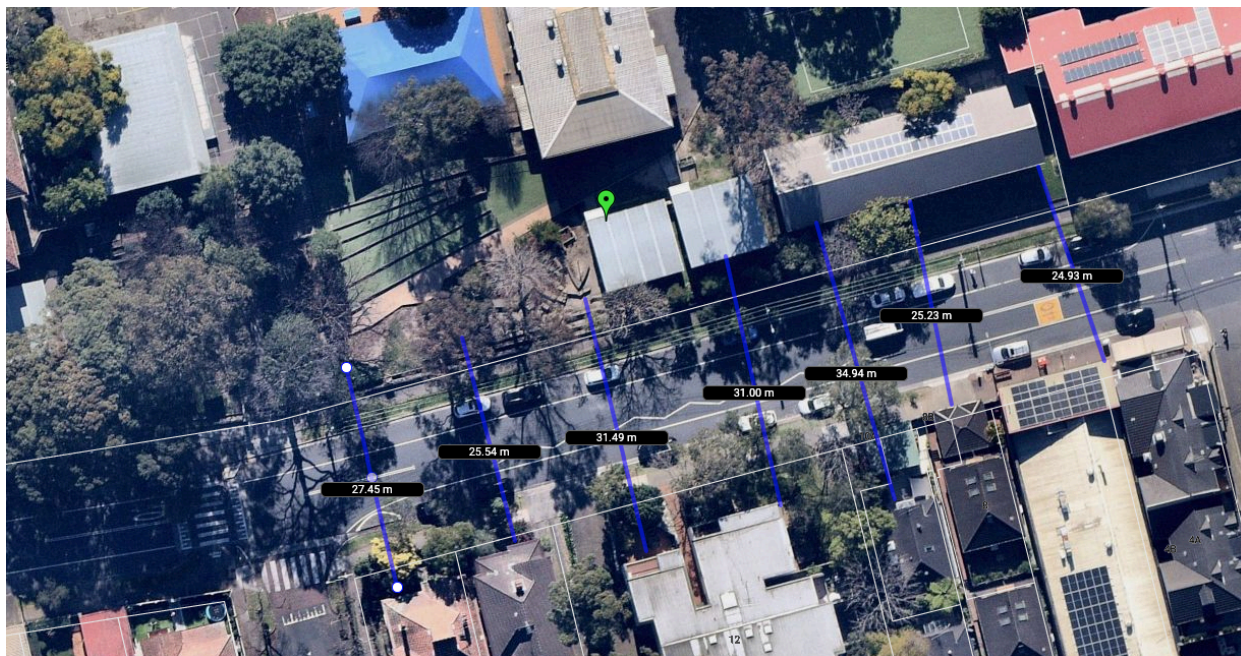


Figure 92: Extract of aerial photo showing distance from residential development to southern edge of the new building (Source: Near Maps)

Daylight access and overshadowing

Large windows are provided to the proposed homebases and staff area. As the windows are orientated south, sun shading devices are not required and the windows orientated north, into the courtyard, benefit from the proposed verandah and eaves on the building for shading. The proposed works do not cause any overshadowing to the surrounding development as described in detail in Section 7.3.2 of this EIS and given the separation by Bay Road continue to afford access to daylight. The proposal causes minor overshadowing to the yarning circle given its location nestled in between Building I and G

Ventilation

Large operable windows are provided to all homebases and staff spaces to facilitate good natural ventilation. While mechanical ventilation will be provided to all new spaces (except the hall) in accordance with the EFSG, natural ventilation can be maximised to reduce reliance on mechanical ventilation. The provision of ventilation will be balanced with the provision of acoustic treatments as detailed by Marshall Day Acoustics (Appendix K).

Services

As shown in the Architectural Plans (Appendix B), the services for the new buildings are located in level 1 of the buildings and not visible from the streetscape. Waste collection will continue from the car park accessible from McHatten Street. The development causes no built form/urban design impact with respect to servicing.

7.1.3. Mitigation measures

The proposed mitigation measures to minimise built form impacts are outlined in Table 14.

Table 14: Built form and urban design mitigation measures

ID	MITIGATION MEASURES
Part A- Administration	
A1	The development is to be carried out in accordance with the Architectural Plans prepared by Fulton Trotter dated 18 August 2021.

7.2. Trees and Landscaping (SEAR 3)

7.2.1. SEAR

Provide

- where relevant, an arboricultural impact assessment prepared by a Level 5 (Australian Qualifications Framework) Arborist, which details the number, location and condition of trees to be removed and retained, includes detailed justification for each tree to be removed and details the existing canopy coverage on-site.
- a detailed site-wide landscape strategy, that:
 - details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage.
 - provides evidence that opportunities to retain significant trees have been explored and/or informs the plan.
 - considers equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation.
 - demonstrates how the proposed development would:
 - a. contribute to long term landscape setting in respect of the site and the streetscape.
 - b. mitigate the urban heat island effect and ensure appropriate comfort levels on-site.
 - c. contribute to objectives to increase urban tree canopy cover.
- a detailed landscape plan prepared by a suitably qualified person.

Relevant Policies and Guidelines

- Australian Standard 4970 Protection of trees on development sites.
- Draft Greener Places Design Guide (GANSW).
- Objective 30 of The Greater Sydney Region Plan - A Metropolis of Three Cities.
- Technical Guidelines for Urban Green Cover in NSW (Office of Environment and Heritage (OEH), 2015).

7.2.2. Assessment

Arboreport has prepared an Arboricultural Impact Assessment (Appendix M). It details the numbers, location and condition of trees to be removed and retained and includes justification.

Due to unsustainable major encroachment into the tree protection zone 16 trees are proposed to be removed:

- Trees 17, 36, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 64, 65 and 66.

The following trees will be retained without impact:

- Trees 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 18, 18, 20, 21, 22, 23, 23a, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 57, 58, 59, 60, 61, 62, 63 and 67.

With respect to other retained trees:

- Tree 56- construction will result in minor encroachments to the TPZ.
- Tree 13- clarification is required on the landscape plan to confirm no edging structure is providing unsustainable impact to the tree;
- Tree 47- major but sustainable impact from building and scaffolding. Pruning to 10% will be required to accommodate scaffolding.
- Trees 16, 37, 38, 39, 40 and 41- Arboreport recommends design modification and construction detail required to avoid and minimise impacts from the proposed major encroachment in Appendix M; and
- Tree 54 and 55- Arboreport recommends design detail and methodology in construction drawings to avoid and minimise impacts from proposed major encroachment. Refer to Appendix M.

Taylor Brammer Landscape Architects has proposed sufficient replacement planting as discussed below and illustrated in Appendix C. Provided the mitigation measures during prior to and during construction are implemented impacts to tree can be appropriately minimised. Refer to Appendix M and Section 7.2.3 below for detail.

Taylor Brammer has prepared a landscape strategy for the proposed development which can be found at Appendix C. The strategy is well considered, has regard to the prominent landscape qualities present on-site and opportunities to improve outdoor recreational and learning spaces and addresses the outcomes of the Arborist Report. Appendix C:

- Details the proposed site planting, location, number and species of planting and height of proposed trees;
- Confirms the existing tree canopy cover as 32% with the proposal increasing cover to 33%;
- The retention of existing trees and removal of other has been formulated in consultation with the landscape architect, arborist and architect. Where possible trees have been sought to be retained such as T16;
- The proposal enhances the quality and amenity of the outdoor space servicing the school. The landscape design is integrated with the built form, provides shade/mitigate the urban heat island effect and responds to the topography; and
- The upgrades positively contribute to the landscape setting and long-term offering of the site.

Refer to Section 3.5 of this EIS for a detail description of the landscape proposal. The landscaping seeks to increase the tree canopy cover from 32% to 33%. The landscape proposal considers the topography of the site and seeks to create equitable and diverse outdoor learning environments which encourage active recreation, learning and connect students with Aboriginal culture. The proposed planting aims to maintain consistency with the locality, respond to existing vegetation on-site, provide shelter from sun, reduction in heat and a comfortable microclimate for students, staff and visitors. Planting schedule and character is extracted below.

Upgrades to North Sydney Public School

PLANTING CHARACTER

THE PROPOSED PLANTING CHARACTER FOR THE SITE AIMS TO MAINTAIN CONSISTENCY WITH THE LOCAL CHARACTER OF NORTH SYDNEY LGA.

A MIX OF FLOWERING NATIVE PLANT SPECIES HAVE BEEN SELECTED TO CORRESPOND TO THE EXISTING VEGETATION ACROSS THE SITE.

PLANT SELECTIONS ARE SYMPATHETIC TO THE SITE'S ENVIRONMENTAL CONDITIONS, ENSURING THAT PLANT SPECIES OFFER HARDINESS TO ENSURE LONGEVITY.

PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	HEIGHT (m)	SIZE	Qty	
TREES					
Ar-hi	Angophora hispida	Dwarf Apple	2-4m	100L	3
Ba-h	Banksia integrifolia	Coastal Banksia	6	100L	2
Ba-se	Banksia serrata	Old Man Banksia	8m	100L	2
Ca-se	Callistemon serrulatus	Black Wattle	4m	100L	3
Ch-ga	Chamaecyparissium communum	NSW Christmas Bush	3m	100L	2
Eu-ra	Eucalyptus paniculata	Grey Iron Bark	20m	100L	3
Eu-ra	Eucalyptus racemosa	Scrubby Gum	12m	100L	1
Fr-hi	Fraxinus latifolia	Rusty Pomadour	4m	100L	1
Ly-ph	Lilly Pilly	Lilly Pilly	12m	100L	3
SHRUBS					
Ac-uf	Acacia ulicifolia	Pickly Mallee	1m	300mm	22
Ac-uf	Acacia stricta 'Red Tip'	Lilly Pilly	2	300mm	29
As-ni	Asplenium nidus	Birds Nest Fern	1.2	45L	16
Ba-se	Banksia serrata	Heath Banksia	2m	300mm	3
Ba-ro	Banksia robur	Swamp Banksia	2m	300mm	8
Ca-l	Callistemon lanceolatus	Narrow-leaved Bottlebrush	1.5m	300mm	18
Ca-wa	Callistemon 'White ANGAC'	Bottlebrush	1m	300mm	29
Cr-sa	Crocosmia saligna	Pink Crocosmia	1m	300mm	21
D-an	Dioscorea antarctica	Woolly tree fern	2	75L	24
Gr-l	Grevillea leucostachya	White Spider Flower	2m	300mm	22
Gr-sp	Grevillea speciosa	Red Spider Flower	2m	300mm	25
Ku-am	Kunzea ambigua	Tick Bush	1m	300mm	19
Pu-ra	Pultenaea racemosa	Large-leaf Bush-pea	2m	300mm	14
Sy-ca	Syzygium Cascade	Lilly Pilly	2m	300mm	167
We-h	Westringia fruticosa	Coastal Rosemary	1.5m	300mm	5
GROUNDCOVERS					
Ac-co	Acacia cognata	Dwarf acacia	0.5	150mm	49
Ba-bc	Banksia bidenioides	Prostrate Banksia	0.5	150mm	55
B-hu	Blechnum nudum	Blechnum	0.75	150mm	20
D-ca	Dianella caerulea	Blue Flax Lily	0.75	150mm	50
D-ra	Dianella revoluta	Flax Lily	0.75	150mm	60
G-ra	Grevillea robusta	Prostrate Grevillea	0.3	150mm	46
He-vi	Hebe verticillata	Father Scaevola	0.3	150mm	49
Lo-hy	Lomandra hystrix	Matt Rush	0.5	150mm	115
Lo-hy	Lomandra longifolia	Fire-tipped Matt Rush	0.5	150mm	155
My-pa	Myoporum parviflorum 'Yareana'	Creeping Boobiala	0.15	150mm	50
Pe-al	Pennisetum alopecuroides 'Nashua'	Swamp Foxtail	1	150mm	90
Sc-ra	Scaevola 'Aussie Selkie'	Fan Flower	0.3	150mm	10
V-ha	Viola hederacea	Native Violet	0.3	150mm	45
We-mu	Westringia 'Murali'	Prostrate Coast Rosemary	0.5	150mm	66



Figure 93: Extract of planting schedule (Source: Taylor Brammer)

The landscape masterplan improves the usability and openness of the central courtyard and creates distinct yet connected play spaces to facilitate student learning, physical activity and social wellbeing. Due consideration has been given to circulation patterns and relationship of the proposed buildings to those existing on-site.

The landscape strategy makes a positive contribution to the Bay Road frontage and significantly improves the school's central courtyard.

The EFSG requires 10m² of play space per student. The existing school provides 9.58m². With the proposal slightly decreasing to 9.41m² with the increase in student numbers. The landscape design embodies CPTED design qualities as detailed in Section 4 of this EIS.

7.2.3. Mitigation Measure

The proposed mitigation measures to enhance the positive landscape outcomes of the proposal is noted in Table 15.

Table 15: Landscape and tree removal mitigation measures

ID	MITIGATION MEASURES
Part A- Administration	
A2	The development is to be carried out in accordance with the Landscape Plan prepared by Taylor Brammer dated 17 August 2021.
Part B- Prior to Commencement of Construction	

ID	MITIGATION MEASURES
B1	Prior to commencement of construction, address the recommendations contained the Arboricultural Impact Assessment dated August 2021 to minimise impacts to retained trees.
Part C- During Construction	
C1	During construction, implement recommendations contained the Arboricultural Impact Assessment dated August 2021 to minimise impacts to retained trees.

7.3. Environmental Amenity (SEAR 4)

7.3.1. SEAR

Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.

Provide

- *shadow diagrams.*
- *a view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development.*
- *an analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes mitigation management measures to manage any impacts.*
- *details of the nature and extent of the intensification of use associated with the proposed development, particularly in relation to the proposed increase in staff and student numbers and detail measures to manage and mitigate the impacts.*

Relevant Policies and Guidelines

- *Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008).*

7.3.2. Assessment

The assessment undertaken in this assessment has regard to the impacts onto surrounding properties on the southern side of Bay Road, Edward Street and west of the school site.

Solar Access

Fulton Trotter has sought to maximise solar access to the proposed learning spaces through the design of the development. The design encompasses 3.6 metre and 4.2 metre floor to ceiling heights with large glazed elements/windows to maximise sunlight penetration/daylight access and ventilation opportunities. The siting of the new buildings also allows the central courtyard to be opened up for better utilisation but also, for enhanced solar access

Visual Privacy

The proposal provides a 6-metre setback to Bay Road. This setback together with the separation afforded by the width of Bay Road (of a minimum 17 metres) and perimeter landscape planting (existing and proposed) affords the surrounding properties visual privacy and reduces opportunities for overlooking. Refer to the Architectural Plans

(Appendix B) and the below figure.



Figure 94: Overview perspective from the south-west (Source: Fulton Trotter)

Visual Amenity

Refer to Section 7.1.2 (Visual Impact) of this EIS.

Overshadowing

Overshadowing is discussed in Section 7.1.2 of this EIS above. As illustrated in the Architectural Plans (Appendix B) the proposed shadows from the new buildings do not impact surrounding development and is as follows:

- 9:00am and 12:00pm mid-winter: minor and falls mostly onto the northern footpath of Bay Road and a small portion of Bay Road.
- 3:00pm: falls onto Bay Road and the northern footpath.

The buildings have been designed and sited to minimise shadow impacts on open space internally within the site and external to the site.

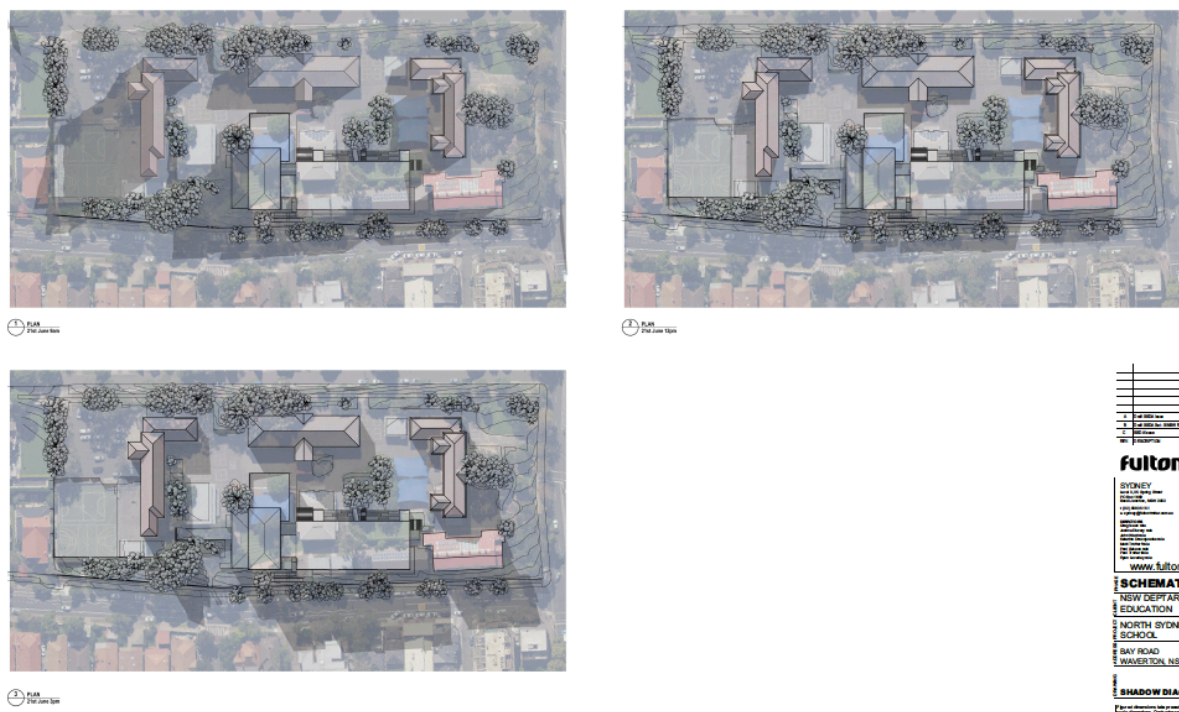


Figure 95: Extract of shadow diagrams. 9.00am (top left), 12.00pm (top right), 3.00pm (bottom left) (Source: Fulton Trotter)

Wind Impacts

The proposed buildings are three storeys and therefore, do not comprise towers that are likely to generate any wind tunnelling effect. On this basis, the proposal is not expected to generate adverse wind impacts within the site or to surrounding properties.

Acoustic Impacts

Refer to Section 7.9 of this EIS and Appendix K for a detailed assessment. Impacts to the nearest residential sensitive receivers will mostly occur during construction and demolition works. The preparation and implementation of a CNVMP will assist in ameliorating impacts to avoid adverse disturbance. In summary, the impacts are considerable acceptable subject to implementing mitigation measures particularly

Light Spill

External lighting will be provided around the new building entry and perimeter pathways to provide a safe environment for users of the facility after hours. This includes:

- Wall lighting in the entry blade walls to illuminate the proposed new entry gate;
- Lighting in the entry awning roof structure to illuminate the entry stairs and landings;
- Lighting to illuminate the entry ramps which are façade mounted;
- Wall lighting along the face of the building to illuminate the service paths adjacent to Building J; and
- Awning or wall lighting for the external perimeter walkways along Building J.

See the below figure for an extract of the proposed lighting scheme.

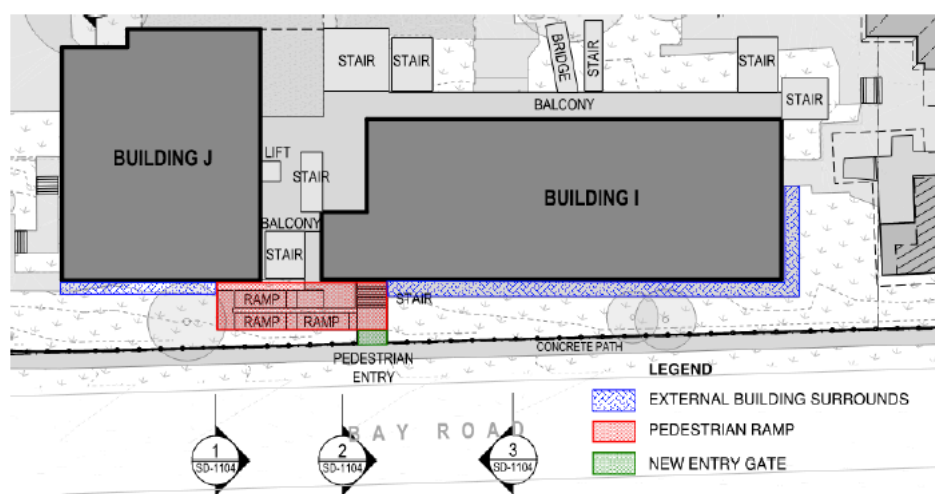


Figure 96: Proposed external lighting zones (Source: LCI)

Given the site is located in close proximity to sensitive receivers to the north, south and west, consideration of any potential light spill is required. LCI has prepared an External Lighting Strategy in Appendix U. The quality of lighting levels will be in accordance with the relevant Australian Standards and EFSG. The strategy involves:

- All external lighting to comply with AS4284- Control of the obtrusive effects of outdoor lighting;
- Luminaries will be selected during detailed design, however, the light source will be high-quality, efficient LED type to minimise energy consumption;
- A warm white colour temperature (3000K) is proposed for external lighting in entrance and circulation areas to provide a warm, welcoming environment. Luminaries will generally be low, cut off, aero screen style to minimise light up;
- The main entrance of the building is proposed to be illuminated to a higher level to establish a hierarchy of lighting, being the most brightly lit area in the external lighting design;
- Ramps and stairs in accordance with AS/NS1158.3.1 will be illuminated to PE2 category, which is to be equivalent to the highest lighting category adjacent to the area; and
- Pedestrian footpaths and access pathways surrounding the external perimeter of the building will be illuminated to PP3 category.

In summary, obtrusive lighting will be carefully considered during the external lighting design development phase to ensure compliance with AS4284 and minimise spill onto neighbours or to the night sky.

7.3.3. Mitigation Measures

The proposed mitigation measures to minimise the environmental amenity impacts are detailed in Table 16.

Table 16: Environmental amenity mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B2	Evidence must be submitted to the satisfaction of the Certifying Authority that all outdoor lighting within the site has been designed to comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area

ID	MITIGATION MEASURES
	(Category P) lighting – Performance and design requirements and AS 4282-2019 Control of the obtrusive effects of outdoor lighting.

7.4. Transport and Accessibility (SEAR 5)

7.4.1. SEAR

Provide a transport and accessibility impact assessment, which includes, but is not limited to the following:

- *analysis of the existing transport network to at least the existing or proposed enrolment boundary, including:*
 - *road hierarchy.*
 - *pedestrian, cycle and public transport infrastructure.*
 - *details of current daily and peak hour vehicle movements based on traffic surveys and / or existing traffic studies relevant to the locality.*
 - *existing transport operation for 1hr before and after (existing or proposed) bell times such as span of service, frequency for public transport and school buses, pedestrian phasing for signals.*
 - *existing performance levels of nearby intersections utilising appropriate traffic modelling methods (such as SIDRA network modelling).*
- *details of the proposed development, including:*
 - *a map of the proposed access which identifies public roads, bus routes, footpaths and cycleways.*
 - *pedestrian site access and vehicular access arrangements, including for service and emergency vehicles and loading/unloading, including swept path analysis demonstrating the largest design vehicle entering and leaving the site and moving in each direction through intersections along the proposed transport routes.*
 - *car and motorcycle parking, bicycle parking and end-of-trip facilities.*
 - *drop-off / pick-zone(s) and arrival/departure bus bay(s).*
 - *pedestrian, public transport or road infrastructure improvements or safety measures.*
- *analysis of the impacts due to the operation of the proposed development, including:*
 - *proposed modal split for all users of the development including vehicle, pedestrian, bicycle riders, public transport, school buses and other sustainable travel modes.*
 - *estimated total daily and peak hour vehicular trip generation.*
 - *a clear explanation and justification of the:*
 - a. *assumed growth rate applied.*
 - b. *volume and distribution of proposed trips to be generated.*
 - c. *type and frequency of design vehicles accessing the site.*
 - *details of performance of nearby intersections with the additional traffic generated by the development both at the commencement of operation and in a 10-year time period (using SIDRA network modelling).*
 - *cumulative traffic impacts from any surrounding approved development(s).*
 - *adequacy of pedestrian, bicycle and public transport infrastructure and operations to accommodate the development.*
 - *adequacy of car and motorcycle parking and bicycle parking provisions when assessed against the relevant car / bicycle parking codes and standards.*
 - *adequacy of the drop-off / pick-up zone(s) and bus bay(s), including assessment of any related queuing during peak-hour access.*

- adequacy of the existing / proposed pedestrian infrastructure to enable convenient and safe access to and from the site for all users.
- measures to ameliorate any adverse traffic and transport impacts due to the development based on the above analysis, including:
 - travel demand management programs to increase sustainable transport (such as a School Transport Plan).
 - arrangements for the Travel Coordinator roles.
 - governance arrangements or relationships with state and local government transport providers to update roads safety.
 - infrastructure improvements, including details of timing and method of delivery.
- a preliminary school transport plan detailing an operational traffic and access management plan for the site, pedestrian entries, the drop-off / pick-up zone(s) and bus bay(s).
- analysis of the impacts of the traffic generated during construction of the proposed development, including:
 - construction vehicle routes, types and volumes.
 - construction program (duration and milestones).
 - on-site car parking and access arrangements for construction, emergency and construction worker vehicles.
 - cumulative impacts associated with other construction activities in the locality (if any).
 - road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality.
 - measures to mitigate impacts, including to ensure the safety of pedestrian and cyclists during construction.
- a preliminary Construction Traffic and Pedestrian Management Plan.

Note: Further guidance is provided in the TfNSW advice attached to the SEARs.

Relevant Policies and Guidelines

- *Guide to Traffic Generating Developments (Roads and Maritime Services, 2002).*
- *EIS Guidelines - Road and Related Facilities (Department of Urban Affairs and Planning (DUAP), 1996).*
- *Cycling Aspects of Austroads Guides.*
- *NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004).*
- *Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (Austroads, 2020).*
- *Australian Standard 2890.3 Parking facilities, Part 3: Bicycle parking (AS 2890.3).*

7.4.2. Assessment

The Transport and Accessibility Impact Assessment prepared by Ason Group (Appendix N) provides a comprehensive response to SEAR 5. The enrolment catchment for the school is depicted in the below image.

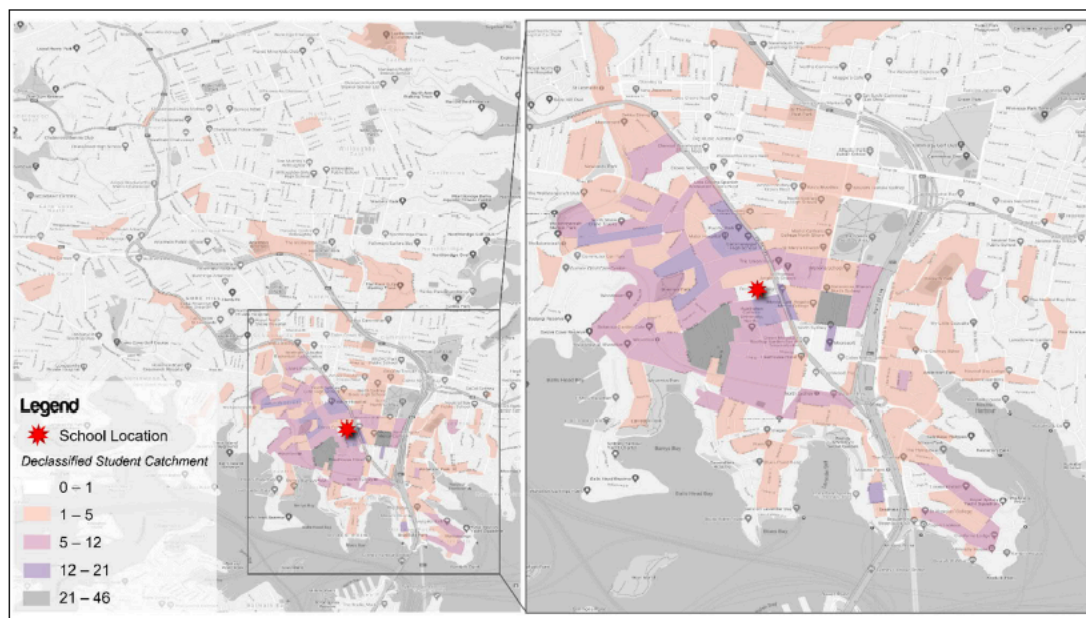


Figure 97: Enrolment catchment (Source: Ason Group)

Section 2.8 of this EIS and Appendix N analyse the existing transport network servicing the site. The proposed site access, parking arrangement, and drop-off and pick-up are described in Section 3.6 of this EIS and Appendix N.

Traffic

Greater Sydney was subject to a COVID-19 lockdown as at the time of writing this EIS and the accompanying documentation. Hence, Ason Group undertook a traffic assessment using historical SCATs intersection data provided by TfNSW, in lieu of recorded on-road survey data undertaken by traffic surveyors. This was discussed with DPIE on Friday 20 August. Ason Group adopted the following conservative minimum vehicle trip generation per student:

- AM school peak: 0.43 trips/student
- PM school peak: 0.14 trips/student

As this SSDA seeks consent to increase the capacity of the students from 869 to 1,012, the net traffic generation assessment anticipates capturing the extents of this increase in students and 7 additional staff only.

The net increase in students/staff results in the following additional vehicle trip estimations:

- AM school peak: 61 trips
- PM school peak: 16 trips

Ason Group note that as the school is existing, traffic associated with the school has been captured as underlying volumes forming part of background traffic movements surveyed for the local area. The following figure depicts the distribution of movements based on the interferences during the AM and PM periods.

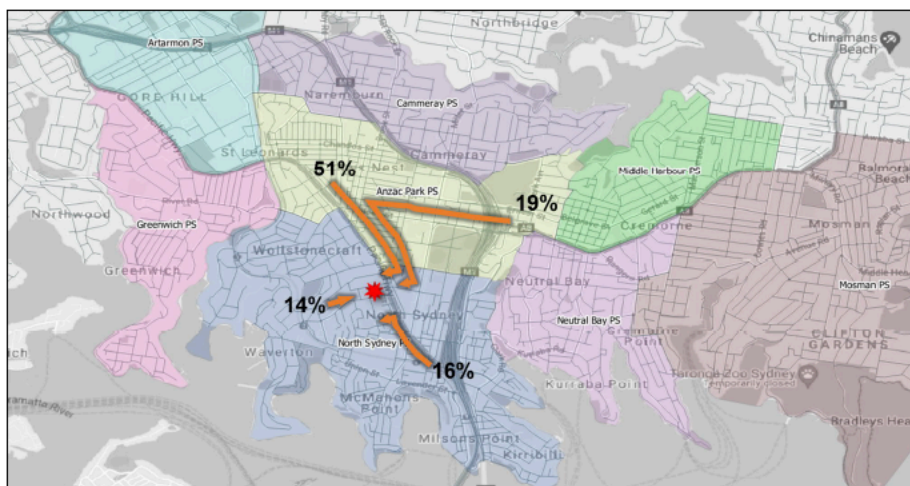


Figure 98: Student distribution (Source: Ason Group)

Ason Group assess that the increase in vehicle trips associated with the increase to school capacity will not generally have any wider or extenuating impacts to the intersection in proximity of the site. The future year baseline demonstrates worsening performance attributed to background growth in the locale; notwithstanding the intersections demonstrate capacity to improve performance with adjustments to phase timing during the AM peak.

Ason Group estimate overall traffic generation potential of the site, excluding the OSHC (as students are transferred to off-site OSHC by bus) is:

- AM school peak: 353 trips
- PM school peak: 115 trips

It is considered in the assessment by Ason group that there is sufficient capacity within the existing and proposed drop-off and pick-up zones to accommodate the additional traffic generation without any adverse impacts on the adjoining road network.

Parking (Car and Bicycle)

As discussed in this EIS, the upgrades do not involve amendments to the existing car park in the north-west of the site. The NSDCP stipulates 1 space/6 staff members. The existing car park provides 50 on-site spaces. Based on the existing 80 spaces, 14 spaces are required in accordance with the NSDCP 2013. The proposal increases staff to 87 meaning the minimum required is 15 spaces. Therefore, the existing car park of 50 spaces well exceeds the minimum parking required for staff.

Appendix N outlines the bicycle parking requirements for the school. Ason Group consider the EFSG bicycle parking rates to be the most appropriate for the use as they are more accurately reflective of actual demand, meaning 60 spaces are required. The proposal involves the removal of 20 existing spaces and provides of 63 new spaces in the north-east corner of the site and 8 spaces in end of trip facilities in level 1 of Building F.

Access

To complement and provide greater utility to the additional pedestrian entry from Bay Road, this SSDA seeks consent for an additional drop-off and pick-up zone on that frontage. Parking restrictions outlined in Section 3.6.2 of this EIS

will require amendments and approval from Council. Section 6.2.2 and 6.2.3 of this EIS outlines that based on initial consultation with Council's traffic engineers this will be supported.

Construction Traffic Management

Ason Group has prepared a Preliminary Construction Traffic Management Plan (Appendix N). Given the nature of the works and the site, no on-site parking will be available for contractors. The incumbent contractor will be required to ensure contractors working on the project are aware of the available transport options and encouraged to carpool. All workers and subcontractors will complete a site induction. If required, an authorised traffic controller will be present during demolition and construction phases to manage pedestrians and cyclists, supervise vehicle movements and loading/unloading. Construction traffic will generally incorporate:

- Rigid trucks up to 8.8 metres
- Up to 12.5 metre rigid trucks for removal of spoil and transportation of material operating under traffic control in the local road network.

Any oversized vehicles will require additional Council/TfNSW approval. The maximum number of trucks accessing the site is estimated to be between 6 to 12 trucks per hours, depending on the works undertaken and type of material required on-site. Ason Group anticipate there will be an average of 20- 40 workers on-site during peak construction activities. Construction vehicles accessing the site are expected to travel in a forward-in and forward-out direction to/from the work zone on Bay Road, see below image. It will temporarily replace the 1/4P parking.



Figure 99: Proposed work zone Bay Road (Source: Ason Group)

The work zone will be managed via construction scheduling set by the incumbent contractor to ensure no queuing or parking on local streets occur.

The proposed truck routes to access the work zone are illustrated in the below figure. It is noted that the existing drop-off and pick-up on McHatton Street will not be impacted by the construction route.



Figure 100: Proposed construction vehicle haulage routes (Source: Ason Group)

Operation Transport and Traffic Management

Ason Group has prepared a School Transport Plan (Appendix O). It seeks to promote ongoing active and sustainable transport modes.

The proposed development is considered to be suitable based on the traffic and transport arrangements for the site and its surrounds, and the transport strategy for its management. The expected future actions and works include implementation of the mitigation measures outlined in Section 7.4.3 of this EIS. This includes consultation with Council's local traffic committee to ensure facilitation on the amend on-street parking restrictions to provide the new drop-off and pick-up area.

7.4.3. Mitigation Measures

The proposed mitigation measures to minimise traffic, parking and access impacts are outlined in Table 17.

Table 17: Traffic, parking and access mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B3	The incumbent contractor will be required to ensure contractors working on the project are aware of the

ID	MITIGATION MEASURES
	available transport options and encouraged to carpool. All workers and subcontractors will complete a site induction.
B4	A construction fence provided on Bay Road and internally within the school to provide safe pedestrian access. The fence is to consist of chain wire fencing along the remaining site boundaries and maintained for the duration of the construction program.
B5	Liaise with Council the altered parking restrictions on Bay Road to facilitate the new drop-off and pick-up.
Part C- During Construction	
C2	Construction of the proposal will be undertaken during the following standard hours: <ul style="list-style-type: none"> Monday to Friday: 7:00am to 5:00pm Saturday: 8:00am to 1:00pm Sunday and Public Holidays: No work It is noted that no construction deliveries between 7:30am and 9:00am and 1:30pm and 3:00pm on school days are permitted.
C3	Traffic control be provided, as required, to regulate movements in and out of the site during construction in accordance with AS1742.3 and RMS "Traffic Control at Worksites" manual at all times.
C4	The work zone will be managed via construction scheduling set by the incumbent contractor to ensure no queuing or parking on local streets occur.
C5	Disruption to road users is to be kept to a minimum by scheduling intensive delivery activities outside of peak network hours.
Part E- Post Occupation	
E1	The School Transport Plan must be implemented and updated annually.

7.5. Ecologically Sustainable Development (SEAR 6)

7.5.1. SEAR

Identify

- how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development.
- proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy.
- how the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy.
- how environmental design will be achieved in accordance with the GANSW Environmental Design in Schools Manual (GANSW, 2018).

Provide

- an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level.
- a statement regarding how the design of the development is responsive to the NARClIM projected impacts of climate change.
- an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.

Relevant Policies and Guidelines

- NSW and ACT Government Regional Climate Modelling (NARClIM) climate change projections.

7.5.2. Assessment

Integral has prepared an ESD Report which can be found at Appendix P. The report comprehensively responds to SEAR 6 and relevant policy on climate change projections. The proposal's consistency with the EP&A Act ESD principles is demonstrated in Section 5.7.2 of this EIS and Appendix P. The DoE has made early commitments to pursue a 5-star Green Star rating for the upgrades. The project is targeting 67 points, noting 60 points are required to achieve a certified 5-star rating. This margin provides an 11% buffer should some of the targeted points become unachievable. Furthermore, an additional 11 points have been flagged as "potential" points that may be substituted in for currently targeted points, if required.

The proposal promotes ESD through:

- Passive building design with an east-west orientation and northern façade shading strategy to promote passive performance by minimising direct solar gains in summer and maintaining access to daylight;
- Targeting an electric heating system to minimise fossil fuels;
- Providing rooftop photovoltaic system on the new buildings;
- Targeting a high performing envelope, lighting system and HVAC system in line with Green Star D&AB v1.3 credit requirements;
- Rainwater capture and reuse for toilet flushing to minimise use of portable water on site;
- Integration of water sensitive urban design measures in the landscape and stormwater schemes;
- Reduced Portland cement in concrete in line with Green Star D&AB v1.3 credit requirements; and
- Seeking to deliver an outcome which minimises associated CO2 emissions and includes passive and resilient design features whilst minimising capital costs; and
- Implement the School Transport Plan (Appendix O) to encourage active transport to and from the school.

7.5.3. Mitigation Measures

The proposed mitigation measures to minimise climate change and ESD impacts are outlined in Table 18.

Table 18: ESD mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B6	Unless otherwise agreed by the Planning Secretary, the applicant must demonstrate that ESD is being achieved by registering for a minimum 5-star Green Star rating with the Green Building Council Australia and submit evidence of registration to the Certifying Authority.

ID	MITIGATION MEASURES
B7	Implement the recommendations made by Integral in the ESD Report dated August 2021.

7.6. Heritage (SEAR 7)

7.6.1. SEAR

- *Provide a Statement of Heritage Impact (SOHI) prepared by a suitably qualified heritage consultant in accordance with the guidelines in the NSW Heritage Manual (Heritage Office and DUAP, 1996) and Assessing Heritage Significance (OEH, 2015). The SOHI is to address the impacts of the development on the heritage significance of the site and adjacent areas and is to identify:*
 - *how the development is consistent with any relevant Conservation Management Plan.*
 - *all heritage items (state and local) within the vicinity of the site including built heritage, landscapes and archaeology, curtilage and setting of the items, detailed mapping of these items, and assessment of why the items and site(s) are of heritage significance.*
 - *the impacts of the development on heritage item(s), heritage significance or cultural heritage values of the site, including visual impacts, required BCA and DDA works, new fixtures, fittings and finishes, any modified services.*
 - *the attempts to avoid and/or mitigate the impact on the heritage item(s), heritage significance or cultural heritage values of the site.*
 - *the attempts to interpret the heritage significance identified into the development.*
 - *justification for any changes to the heritage fabric or landscape elements including any options analysis.*
- *If the SOHI identifies impact on potential historical archaeology, a historical archaeological assessment should be prepared by a suitably qualified archaeologist in accordance with the Archaeological Assessment Guidelines (NSW Heritage Office, 1996) and Assessing Significance for Historical Archaeological Sites and 'Relics' (Heritage Council of NSW, 2009). This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the development on this potential archaeological resource. Where harm is likely to occur, it is recommended that the significance of the relics be considered in determining an appropriate mitigation strategy. If harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations or salvage programme.*

7.6.2. Assessment

Curio Projects has prepared a HIS to address SEAR 7 (Appendix T). The assessment has been undertaken having regard to the relevant guidelines and policies. There is no existing Conservation Management Plan Strategy that applies to the site. As described in Section 2.9 of this EIS, the site:

- Pursuant to the NSLEP, contains the 'Gates and fence of former Crows Nest House' and is a locally significant heritage item (#I0957);
- Does not contain any heritage items registered on the State Heritage Register; and
- Is identified under Section 170 of the *Heritage Act 1977* as having items of local heritage significance on the DoE Section 170 Heritage and Conservation Register- "North Sydney Public School- Buildings B00A, B00D and B00F, Gates and Period Fence" (s170 #50656252). This includes the 1931 McHatton Building (B00D), 1935 Pacific Building (B00A) and the 1935 River Building (B00F), as well as the former Crows Nest House fence and gate.

The site is also in proximity of various conservation areas and local heritage item. Refer to Figure 47.

Curio Projects assess that the site is unlikely to retain historical archaeological resources or 'relics' from Crows Nest

House (c.1820- 1930) or NSPS (1930-present). Hence, a comprehensive historical archaeological assessment is not required to be prepared for this SSDA.

The heritage impacts from the proposal include:

- Creation of a new opening in the heritage fence, c.3,500mm in width, to accommodate the new pedestrian access point from Bay Road including a modern security gate. The entrance will also be the only DDA compliant point of access to the school. While the creation of the new entrance will have a minor negative physical impact in removal of a section of the original fabric, on balance, the location of the entrance will create a DDA compliant access without proposing any impact to the original southern former Crows Nest House gate. Overall, the new entry will result in a significant positive outcome for inclusivity and equitable access. The heritage impact is considered to be at least partially offset via the introduction of heritage interpretation initiatives at the new entrance to both represent the removed section of fence and communicate history of the site. Refer to mitigation measures below.
- Turner and Townsend has confirmed that the construction works will not require any other amendments to the heritage fence and hence will not cause any other impacts to facilitate access to the site, beyond the new pedestrian entry described above;
- As Building B (Lady Hay Hall) and Building C (Haven Building) are not heritage significant, their demolition does not pose an impact to the heritage fabric. Curio Projects (Appendix T) assess the removal of these buildings will have a neutral heritage impact. Additionally, the removal of the demountable has a positive visual impact for the site;
- The proposal creates positive visual connections between the roof form of the proposed Buildings J and I and the hipped roof structures on Buildings A, D and F. The location and design of the new buildings has duly considered the sitting of existing buildings and the relationship between them;
- Given the fall of the site, the new buildings will be perceived as two storeys from the north elevation. This results in a neutral heritage impact from Building D to the north. Curio Projects consider the proposed built form to be generally consistent with the height, bulk and scale of existing structures on-site;
- The proposed materiality positively reflect the heritage characteristics on the site; and
- The proposal results in minor and neutral impact to the setting, character and significance of the surrounding heritage conservation areas.

Overall, the proposal is well considered with respect to heritage items, value and overall significance of the site. Subject to implementation of the heritage mitigation measures including preparation of a Heritage Interpretation Strategy, archival recording of items proposed for demolition and, engagement of structural engineer and heritage architect to provide input on the detailing of the new entrance/heritage items, the proposal is acceptable with respect to heritage.

7.6.3. Mitigation Measures

The proposed mitigation measures to minimise the impacts to European heritage are outlined in Table 19.

Table 19: Heritage mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B8	Prepare a Heritage Interpretation Strategy for the site to offset and mitigate heritage impacts that have been identified as unavoidable in the context of the feasibility of the design brief, such as minor physical and visual impact to the southern heritage fence. It should develop appropriate and meaningful interpretation initiatives to be installed as part of the works. For the new Bay Road entrance, the final interpretation product is to be

ID	MITIGATION MEASURES
	developed in consultation with the regulatory bodies and appointed heritage consultant.
B9	Prepare a full archival recording of structures and elements proposed for demolition including Building B, Building C and current, unimpacted form of the former Crows Nest Estate fenceline, particularly the southern elevation where the new entrance is proposed.
B10	In consultation with a structural engineer and heritage architect finalise the detailed design of the new entrance from Bay Road to minimise impacts to the existing fabric.

7.7. Aboriginal Cultural Heritage (SEAR 8)

7.7.1. SEAR

- *Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that:*
 - *identifies and describes the Aboriginal cultural heritage values that exist across the site.*
 - *includes surface surveys and test excavations where necessary.*
 - *has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).*
 - *incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010).*
 - *documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land.*
 - *identifies, assesses and documents all impacts on the Aboriginal cultural heritage values.*
 - *demonstrates attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts.*
 - *demonstrates attempts to interpret the Aboriginal cultural heritage significance identified into the development.*
- *Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment Report must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.*

7.7.2. Assessment

Austral Archaeology has prepared an ACHA and AAA in accordance with SEAR 8 (Appendix S). These reports:

- Identify and describe the Aboriginal cultural heritage values of the site;
- Were prepared in accordance with relevant guidelines and practices;
- Includes consultation in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water 2010). Refer to Section 6.7.2 of this EIS for more detail;
- Assesses the cultural heritage values of the Aboriginal people which associated with the land; and
- Assess impact expected to be generated by the proposal.

The assessment concludes:

- It is unlikely there were any large perennial waterway in the area, and any rain would have quickly drained into the harbour due to the topography of the surrounding area.
- Research into geology, geography, and history shows the site has been subject of extensive construction and clearance, with no part of the site untouched. It is likely the initial clearing would have highly disturbed and removed any Aboriginal artefacts, and with subsequent level of disturbance evident on the site, there is very little likelihood that any remains exist within the study area.
- No Aboriginal objects or sites were identified during the archaeological survey and no areas of archaeological potential were identified as the level of disturbance and development was too high.
- The site contains very low potential to contain Aboriginal cultural material and the significant in terms of Aboriginal archaeology heritage is considered low.

Austral Archaeology consider no further Aboriginal archaeological works are required for the site and no Aboriginal Heritage Impact Permit is required. Subject to implementing the below mitigation measures, the proposal is considered acceptable with respect to Aboriginal heritage.

7.7.3. Mitigation Measures

The proposed mitigation measures to minimise the impacts to Aboriginal cultural heritage are outlined in Table 20.

Table 20: Heritage mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencing Construction	
B11	All contractors undertaking earthworks are to undergo induction on identifying Aboriginal heritage objects, protection of Aboriginal heritage objects under the <i>National Parks and Wildlife Act 1974</i> and penalties for damage to these items.
Part C- During Construction	
C6	<p>If any objects are found during construction that is suspected to be an Aboriginal object or material, the following process is to be followed:</p> <ul style="list-style-type: none"> • No further harm or do not move the object; • Immediately cease work at that particular location; • Secure the area so as to avoid further harm to the Aboriginal object; • Notify a qualified archaeologist as soon as possible to inspect, assess and, if necessary, record the object of material; • Immediately notify Heritage NSW if the object of material is Aboriginal cultural heritage material on 131555, providing any details of the Aboriginal object and its location, and; • Not recommence any work at that particular location unless authorised in writing by Heritage NSW.
C7	<p>If any object is found suspected to be human remains, the following process must be followed:</p> <ul style="list-style-type: none"> • Prevent all personnel and vehicular access to or near the object; • Immediately contact NSW Police; • Immediately notify Heritage NSW on 131555, noting potential Aboriginal human remains and providing any details of the object and its location; • Contact the project archaeologist; and • Not recommence any work at that particular location unless authorised in writing by Heritage NSW.

7.8. Social Impacts

7.8.1. SEAR

- *Provide a Social Impact Assessment prepared in accordance with the draft Social Impact Assessment Guideline 2020.*

Relevant Policies and Guidelines:

- *Draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment)*

7.8.2. Assessment

Elton Consulting has prepared an SIA in which can be found at Appendix L. The SIA has been prepared in accordance with the SIA Guideline 2021. It is noted the SIA Guideline was approved in the intervening time since the SEARs was issued. The other DPIE tools utilised in the preparation of the assessment was the Social Impact Assessment Technical Supplement 2021 and the SIA Scoping Worksheet (DPIE 2021). Elton Consulting developed a robust methodology:

1. **Initial Scoping:** To identify potential social impacts that may result from the proposal and determine the social locality.
2. **Consulting: Consultation** included an online community survey undertaken by SINSW in late 2020 and meetings with identified stakeholders ran by Elton Consulting in 2021.
3. **Develop a Social Baseline:** The baseline was developed to understand the community within the social locality from which to assess the potential impacts.
4. **Impact Identification:** Findings from literature, other technical specialists, the detailed social baseline and engagement were used to refine the identification of impacts and understand their potential significance.
5. **Enhancement and Mitigation:** Measures were developed for each impact to enhance positive impacts or reduce negative impacts.

Impacts identified included:

- Amenity impacts during the construction period including visual, air quality, traffic, safety and heritage impacts;
- Operational impacts to the existing school facilities during the upgrade construction period;
- Positive impacts as the proposal increases the student numbers resulting in changes to social fabric and character of the school;
- Improved accessibility with the proposed entrance from Bay Road;
- Enhanced teaching facilities and increased opportunity for innovation;
- Increased Aboriginal cultural awareness as the design has been informed by cultural consultation and will continue to be; and
- Economic impacts including provision of construction jobs and school employment opportunities.

As can be seen above, the proposal is considered to generally result in positive impacts. Other impacts will be temporary as they are related to construction and can be managed and addressed through mitigation measures. To this end, Elton Consulting has considered in detail mitigation measures that may be implemented to minimise social impacts. The following recommendations were made by Elton Consulting:

- Continue engagement with the school and local community;
- Establish educational programs on safety around construction sites;
- Prepare and implement a CMP;

- Implement the School Transport Plan (Appendix O);
- Continue Aboriginal engagement and establish partnership to foster education; and
- Implement DoE's community use strategy to encourage community use of the hall and library out of school hours.

Elton Consulting concludes that based on the implementation of the above recommendations as mitigation measures, it is likely the proposal will result in a manageable impact on the community during construction and positive social impacts once operational.

7.8.3. Mitigation Measures

The proposed mitigation measures to minimise social impacts are outlined in Table 21.

Table 21: Social impact mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to Commencement of Construction	
B12	Proactive and ongoing engagement with the school community and local community to build awareness and preparedness for the construction program.
B13	Implement a child-focussed educational program focused on safety around construction sites.
B14	Work with the community user group to plan for disruption and identify potential issues that may impact continuation of educational service through the construction program. Consult with Council as required.
B15	Ongoing engagement with the Aboriginal stakeholders.
B16	Prepare a detailed CMP addressing noise, dust and traffic mitigation measures.
Part C- During Construction	
C8	Establish clear site entry and exist points for construction, separate from the general school community.
C9	Proactive and ongoing engagement with the school community and local community to identify issues during the construction process.
C10	Establish bi-weekly progress meetings involving the contractor, SINSW and school staff to identify issues and proactively address as required.
Part E- Post Occupation	
E2	Implement the School Transport Plan prepared by Ason Group dated August 2021.
E3	Implement DoE's community use of school facilities policy to promote utilisation of new facilities.
E4	Identify opportunities to build partnerships with Aboriginal stakeholders to develop educational programs.

7.9. Noise and Vibration (SEAR 10)

7.9.1. SEAR

- Provide a noise and vibration impact assessment that:
 - includes a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation and construction.

- details the proposed construction hours and provide details of, and justification for, instances where it is expected that works would be carried out outside standard construction hours.
- includes a quantitative assessment of the main sources of operational noise, including consideration of any public-address system, school bell, mechanical services (e.g. air conditioning plant), use of any school hall for concerts etc. (both during and outside school hours) and any out of hours community use of school facilities.
- outlines measures to minimise and mitigate the potential noise impacts on nearby sensitive receivers.
- considers sources of external noise intrusion in proximity to the site (including, road rail and aviation operations) and identifies building performance requirements for the proposed development to achieve appropriate internal amenity standards.
- demonstrates that the assessment has been prepared in accordance with policies and guidelines relevant to the context of the site and the nature of the proposed development.

Relevant Policies and Guidelines:

- NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA)).
- Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009).
- Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006).
- Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008).

7.9.2. Assessment

Marshall Day Acoustics has prepared a Noise and Vibration Impact Assessment which can be found at Appendix K. The relevant policies and guidelines set out in SEAR 10 have been adequately addressed. It is noted that at the time of preparing the acoustic and vibration assessment, Greater Sydney was subject to a COVID-19 lockdown, hence an acoustic survey (which would typically be carried) was not able to be undertaken. To carry out a response to the SEARs and in the context of the lockdown, reasonable estimates of background noise and prevailing traffic noise intrusion have been carried out. Marshall Day Acoustics note it may be necessary to carry-out on-site noise surveys in accordance with the EPA Noise Policy for Industry following cessation of the lockdown. This was discussed with DPIE on Friday 20 August. DPIE were understanding of the restrictions associated with the COVID-19 lockdown and accepted the approach undertaken. It was noted by DoE and DPIE that additional on-site noise surveys may need to be undertaken as part of the RtS.

Noise with the potential to impact existing noise sensitive receivers include:

- Mechanical plant;
- Public address and school bell systems;
- Activities and events held in the hall and out of hours communities facilities;
- Noise from classrooms;
- Noise during construction/demolition;
- Traffic generation noise; and
- Aircraft noise;

Operational Noise

Public address, school bell and mechanical services

The school bell operates in accordance with the bell schedule stipulated in Appendix K, with school commencing at 8:55am and concluding at 2:55pm. The bell operates 5 times per day through a speaker system comprising music for 20 seconds. The noise from internal classroom speakers within new building will be controlled by the building façade.

Noise emissions from any new speakers located outdoors or within the naturally ventilated hall will be reviewed in further detail once the specification number and location of new bells/speakers is known. Noise from the new PA or school bell noise sources will be designed in accordance with NPfl Project Noise Trigger Levels. Marshall Day Acoustics recommends:

- Speakers be positioned to minimise noise spill'
- Consider the use of directional speakers;
- A distributed system of smaller, lower output speakers rather than a system of fewer, high output speakers to allow better control of noise spill and lower noise level; and
- External speaker use to be limited to provision of short PA announcement and bell functions only, not for music/radio.

Detail of mechanical services is not yet known at this stage. Noise control measures recommended by Marshall Day include:

- Noise control barriers;
- Selection of low-noise equipment;
- Vibration isolation items; and
- Attenuators to ducting.

School hall

Marshall Day has assessed the expected design requirements for the hall envelope informed by control of noise egress from internal activities, roof/ceiling structure, glazing and passive surveillance. The school has advised on the school-based activities in the hall. The preliminary assessment of the noise generated from the hall concludes:

- It will be feasible to comply with anticipated noise criteria during daytime hours. This allows for northern and eastern doors open for ventilation;
- It may be possible for the closest residential properties on Bay Road to be exposed to noise slightly above the criteria during general school activities during daytime hours. This is due to the open nature of the eastern doors; and
- Noise emission during community events after hours is likely to exceed the noise criteria with doors open for ventilation. Closing the doors will reduce noise levels though exceedance may still be possible.

Marshall Day note it will be necessary to specify the hall envelope during detailed design post SSDA to ensure cumulative noise levels at nearby sensitive receivers can comply with the derived NPfl criteria.

Outdoor events

A qualitative assessment of outdoor activity has been undertaken. The increase in student population is assessed as minor at around 0.7dB and will unlikely be noticeable. The upgrade to the playground is assessed as unlikely to generate adverse acoustic impact to most surrounding residential areas due to existing the setbacks to nearby sensitive receivers. Moderate noise increase in some residential receptors in Bay Road may arise, though on comparison with the qualitative assessment in the Noise Guideline for Local Government 2013 and Protection of Environment Operations Act 1997 it is expected to remain acceptable.

Traffic noise and car park use

Acoustic rating is likely to be required for the external elements of the new buildings to achieve the internal noise criteria. Detailed acoustic assessment (post SSDA) will confirm the type and extent of necessary acoustic ratings for

construction. To achieve internal noise level, it will be necessary to close most window (south in particular). Air conditioning will therefore be required. Noting the car park location and capacity remains unchanged, the primary consideration is additional noise from additional 'trips' from the increase in student and staff population. Additional noise increases associated with additional traffic is assessed as acceptable subject of implementing the following acoustic controls:

- Acoustic rated external windows and doors to learning spaces, library and administration areas;
- Acoustic rated external windows and doors to the refurbished general learning areas in Building G;
- Acoustic rated ceiling below roof of new buildings typically comprising a solid set unperforated plasterboard ceiling with necessary acoustic absorptive finishes below the plasterboard; and
- Acoustic rated windows and awning glass doors to the new hall.

Aircraft noise

The site is outside of the ANEF 20 zone for Sydney Airport, hence an assessment of aircraft noise is not required.

Provided the below mitigation measures summarised below and in Appendix K are implemented to proposal will have acceptable noise and vibration impacts.

Demolition, Excavation and Construction Noise and Vibration

Marshall Day Acoustic assess noise from construction:

- May exceed the "highly noise affected" management goals for some of the surrounding receivers for both the worst-case and average scenarios during demolition*;
- May exceed the "highly noise affected" management goals for some of the surrounding receivers for only worst-case scenario during the bulk earthworks*; and
- Is expected to be below the "highly noise affected" management goals for all the surrounding receivers for both worst-case and average scenarios during the site preparation, relocation of temporary buildings and construction.

*Works may exceed noise affected criteria for worst-case and average scenarios by up to 29cB and 22dB respectively.

Construction stage impacts will be minimised with the CNVMP to be prepared prior to commencement of works. The recommendations detailed in Appendix K are included in the mitigation measures below.

Construction traffic on receivers on Pacific Highway or Bay Road is not expected to be significant. Movements of 6- 12 trucks per hour through local roads (Berry Street and Edward Street) has the potential to increase existing traffic noise by more than 2dB.

7.9.3. Mitigation Measures

The proposed mitigation measures to minimise noise and vibration impacts are outlined in Table 22.

Table 22: Noise and vibration impact mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B17	Prepare and implement a CNVMP once the detailed construction methodology is available, having regard to the recommendations for inclusion by Marshall Day Acoustics dated August 2021.

ID	MITIGATION MEASURES
B18	Undertake detailed traffic noise measurements and analysis to assess the potential impact on residential receivers along the surrounding local roads. Implement any recommendations that arise from that assessment.
Part C- During Construction	
C11	<p>Construction of the proposal will be undertaken during the following standard hours:</p> <ul style="list-style-type: none"> Monday to Friday: 7:00am to 5:00pm Saturday: 8:00am to 1:00pm Sunday and Public Holidays: No work <p>It is noted that no construction deliveries between 7:30am and 9:00am and 1:30pm and 3:00pm on school days are permitted.</p>
Part E- Post Occupation	
E5	Inform the community of noise events and no events to be held between 10pm and 7am.
E6	Provide contact number of the relevant persons employed to communicate with the community during noisy events.

7.10. Biodiversity (SEAR 11)

7.10.1. SEAR

- *Provide a Biodiversity Development Assessment Report (BDAR), that assesses the biodiversity impacts of the proposed development in accordance with the requirements of the Biodiversity Conservation Act 2016, Biodiversity Conservation Regulation 2017 and Biodiversity Assessment Method, except where a BDAR waiver has been issued in relation to the development or the development is located on biodiversity certified land.*
- *Where a BDAR is not required, because a BDAR waiver has been issued, in relation to the development, provide:*
 - *a copy of the BDAR waiver and demonstrate that the proposed development is consistent with that covered in BDAR waiver.*
 - *an assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development.*

Note: Further guidance is provided in the Biodiversity and Conservation Division Standard Environmental Assessment Requirements attached to the SEARs.

7.10.2. Assessment

DPIE confirmed on 15 May 2021 that a BDAR is not required for the subject proposal. Refer to Appendix F for the BDAR Request prepared by Eco Logical Australia and the Waiver issued by DPIE. As discussed in Section 2.11 of this EIS, the site does not contain threatened ecological communities, no native vegetation or fauna species. It is noted:

- Two hollow-bearing trees were along on the northern site boundary, however, will not be impacted by the upgrades;
- One *Eucalyptus nicholii* (Narrow-leaved Black Peppermint), a vulnerable species under the BC Act and EPBC Act, was identified within the site during the survey, which is located outside of the normal distribution for this species, being the NSW North Coast. The removal of this threatened species is assessed in Appendix F and would not result

in a significant impact to this threatened species as the site does not contain habitat for the species and is located outside of the known distribution and was likely planted; and

- The removal of planted vegetation, which may provide seasonal foraging habitat for the Grey-headed Flying-fox, would not result in a significant impact to the species as foraging habitat is marginal and breeding habitat were not identified within the site.

7.10.3. Mitigation Measures

No mitigation measures are required as the proposal is subject of a BDAR Waiver and the site does not contain significant vegetation or flora and fauna values that could be affected. In addition, new landscape planting is proposed in Appendix C as addressed Section 7.2.3 of this EIS.

7.11. Contributions (SEAR 12)

7.11.1. SEAR

Identify

- any Section 7.11/7.12 Contribution Plans, Voluntary Planning Agreements or Special Infrastructure Contribution Plans that affect land to which the application relates or the proposed development type.
- any contributions applicable to the proposed development under the identified plans and/or agreements. Justification is to be provided where it is considered that the proposed development is exempt from making a contribution.
- any actions required by a Voluntary Planning Agreement or draft Voluntary Planning Agreement affecting the site or amendments required to a Voluntary Planning Agreement affected by the proposed development.

7.11.2. Assessment

As established in Section 5.13 of this EIS, DPIE would require agreement of the public authority, in this case the DoE or the Minister of Planning and Public Spaces, to impose a contribution on this project. Consideration should be given to the Crown's role in providing a community service and State infrastructure (not provided for by Council).

It is considered reasonable and consistent with decision making for Crown development in NSW not to impose a condition requiring a contribution. The project in and of itself is a significant and positive contribution as it provides an upgrade of a critical piece of social infrastructure for the growing community of North Sydney.

7.11.3. Mitigation Measures

No mitigation measures are required as no imposition of contribution for the project is to be provided in the Notice of Decision.

7.12. Staging (SEAR 13)

7.12.1. SEAR

- Assess impacts of staging where it is proposed and detail how construction works, and operations would be managed to ensure public safety and amenity on and surrounding the site.

7.12.2. Assessment

The scope of works subject of this SSDA will be constructed in five stages as detailed in Section 3.11, being:

- Stage 1: Relocate temporary buildings
- Stage 2: Demolish existing buildings
- Stage 3: Construct new buildings
- Stage 4: Repurpose Building G
- Stage 5: Remove temporary buildings

This delivery strategy has been developed to enable the ongoing operational of the school during the construction process and minimise impacts onto the school community and surrounding locality. Turner & Townsend has prepared a Construction Management Plan (Appendix V). Ason Group has also prepared a Preliminary Construction Traffic Management Plan (Appendix N). Together, these plans ensure public safety is protected and the amenity of the surrounding sites is not adversely affected. Provided the plans are updated as required during the construction stage, the impacts are considered acceptable.

7.12.3. Mitigation Measures

The proposed mitigation measures to minimise the construction impacts are outlined in Table 23.

Table 23: Construction mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B19	As required, update the Construction Management Plan and Preliminary Construction Traffic Management Plan.
B20	Educate the school and wider community on the staging plan and construction program.

7.13. Utilities (SEAR 14)

7.13.1. SEAR

- *In consultation with relevant service providers:*
 - *assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.*
 - *identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.*
 - *provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.*

7.13.2. Assessment

LCI has prepared a Utilities Report, appended at Appendix I. The report undertakes an assessment of the utility infrastructure that is required to support the upgrades. Section 2.17 of this EIS describes the existing infrastructure and Section 3.10 the proposed infrastructure required to support the upgrades. Further investigation will be required beyond the SSDA stage to ascertain whether additional infrastructure is required for fire and sewer services. Notwithstanding, it is considered the upgrades will be appropriately serviced by the required infrastructure. The proposed services do not result in impacts to the existing services. LCI will need to coordinate the required approvals with respective service providers, as part of detailed design post SSDA approval.

7.13.3. Mitigation Measures

The proposed mitigation measures to minimise the impacts to existing utilities in Table 24.

Table 24: Utility mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B21	Obtain approvals from relevant service providers to deliver utility infrastructure.

7.14. Stormwater Drainage (SEAR 15)

7.14.1. SEAR

Provide:

- a preliminary stormwater management plan for the development that:
 - is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority.
 - details the proposed drainage design for the site including on-site detention facilities, water quality measures and the nominated discharge point.
 - demonstrates compliance with Council or other drainage authority requirements.
- stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties.
- Where drainage infrastructure works are required that would be handed over to Council, provide full hydraulic details and detailed plans and specifications of proposed works that have been prepared in consultation with Council and comply with Council's relevant standards.

7.14.2. Assessment

Aurecon has prepared a Stormwater Management Report and Plans (Appendix H) which details the proposed stormwater concept for the proposal. The plan has been prepared taking into consideration the existing drainage system and location of utilities as discussed in this EIS. The proposed management strategy is discussed Section 3.7 of this EIS and will be captured as roof water and within localised field inlets then piped via gravity to the relevant treatment and mitigation measures prior to discharge. A new on-site detention tank is also proposed the new buildings. Appendix H identifies water quality measures, proposed discharge points/pipes and detention tank, which do not result in adverse downstream impact. MUSIC model results indicate the proposed water quality treatment train with GPTs and ocean protect phosphosorb stormfilter (or similar) are satisfactory. Subject to implementation of the below mitigation measures, Aurecon assess the proposed stormwater management plan will not result in adverse downstream impacts.

7.14.3. Mitigation Measures

The proposed mitigation measures to minimise stormwater impacts are outlined in Table 25.

Table 25: Stormwater mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to Commencement of Construction	

ID	MITIGATION MEASURES
B22	As required, update to the sediment and erosion control plan.
B23	Provision of sediment fences to the perimeter of the construction area as required.
B24	Nominate specific areas for plant and construction material storage.
B25	Diversion of upstream stormwater runoff around disturbed areas of the development as required.
B26	Immediate stabilisation of disturbed areas as required.
B27	Designation and marking of transport routes across the site to minimise dust disturbance.
B28	Provision of rock pad or shaker grid on the site's construction exit.
B29	Provision of stormwater inlet protection devices to existing stormwater inlet structures within the site, and within the roadway immediately downstream of the site.
B30	Education of site personnel to the sediment and erosion control measures implemented on-site.
Prior C- During Construction	
C12	Prior to the release of any stormwater from the site, water quality samples are to be taken and analysed.
C13	Monitoring of stormwater quality discharging from the development and the implementation of additional measures/modification of existing measures if the quality of stormwater discharging from the site will have a negative impact. The quality of stormwater released from the site is to meet the NSC's stormwater quality standards.
C14	Construction activities are to be limited to the designated construction area(s).
C15	Regular inspection and maintenance of erosion control measures. Following rainfall events greater than 200mm, inspection of erosion control measures and removal of collected material shall be undertaken. Replacement of any damaged equipment shall be performed immediately.
C16	Monitoring of water quality impacts from construction activities as appropriate. Any erosion and sediment control devices that are not performing adequately to meet NSC standards are to be replaced or supplemented with additional measures.

7.15. Flooding (SEAR 16)

7.15.1. SEAR

- *Identify any flood risk on-site in consultation with Council and having regard to the most recent flood studies for the development area and the potential effects of climate change, sea level rise and an increase in rainfall intensity.*
- *Assess the impacts of the development, including any changes to flood risk on- site or off-site, and detail design solutions to mitigate flood risk where required.*

Relevant Policies and Guidelines:

- *NSW Floodplain Development Manual (DIPNR, 2005).*

7.15.2. Assessment

As outlined in Section 2.16 of this EIS and the Stormwater Management Report prepared by Aurecon (Appendix H),

the site is not flood affected.

7.15.3. Mitigation Measures

No flood mitigations measures are necessary in the circumstance of the proposal, as the site is not flood prone.

7.16. Soil and Water (SEAR 17)

7.16.1. SEAR

Provide:

- *an assessment of potential impacts on surface and groundwater (quality and quantity), soil, related infrastructure and watercourse(s) where relevant.*
- *details of measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles.*
- *an assessment of salinity and acid sulphate soil impacts, including a Salinity Management Plan and/or Acid Sulphate Soils Management Plan, where relevant.*

Relevant Policies and Guidelines:

- *Managing Urban Stormwater - Soils and Construction Volume 1 (Landcom, 2004).*
- *Acid Sulfate Soil Manual, (NSW Acid Sulfate Soil Management Advisory Committee, 1998).*
- *Acid Sulfate Soils Assessment Guidelines (DoP, 2008).*
- *Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008).*

7.16.2. Assessment

Aurecon has undertaken an assessment of the potential surface and soil impacts related to the proposal. To manage these impacts, a preliminary sediment and erosion control plan including sediment fencing, stabilised site access and inlet protection to the north, has been prepared as detailed in Section 3.8 of this EIS. Provided this plan is updated prior to the commencement of construction, the proposal is assessed as acceptable with respect to soil impacts.

Tetra Tech Coffey found that based on their understanding of site and given an approximate reduced level for groundwater of 68.5 to 73.2 metres AHD, they do not expect the proposal would encounter or adversely impact the groundwater environment or groundwater quality. Refer to the Geotechnical Desktop Study in Appendix G.

Tetra Tech Coffey has confirmed in the PSI (Appendix J) that a SMP and a ASSMP are not required.

7.16.3. Mitigation Measures

The proposed mitigation measures to minimise the soil and water impact are outlined in Table 26.

Table 26: Soil and water mitigation measures

ID	MITIGATION MEASURES
Part B – Prior to Commencement of Construction	
B31	Prepare and implement a sediment and erosion control plan in accordance with Council's requirements and

ID	MITIGATION MEASURES
	Managing Urban Stormwater Soil and Construction 2004 (Blue Book)

7.17. Waste (SEAR 18)

7.17.1. SEAR

- Identify, quantify and classify the likely waste streams to be generated during construction and operation.
- Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.
- Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.
- Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered.

Relevant Policies and Guidelines:

- Waste Classification Guidelines (EPA, 2014).

7.17.2. Assessment

This EIS is accompanied by a CWMP and OWMP in Appendix W and X, respectively. The reports address SEAR 18.

Construction Waste

Elephants Foot has identified, quantified and classified the likely waste to be generated during the construction and demolition. Refer to the following figures demonstrating how waste will be managed.

Material	Volume (m3)	*Tonnes (t)	**Appx. Percentage Recovered
Excavation Material	7,201	7,201	99.8%
Green waste	N/A	N/A	80%
Bricks	58.8	70.6	100%
Tiles	N/A	N/A	100%
Concrete	118.6	177.9	100%
Timber	81.8	15.5	33%
Plasterboard	15	3	50%
Metals	4.3	2.2	100%
Asbestos	N/A	N/A	0%
Other waste	N/A	N/A	0%
Totals	7,479.5	7,470.2	

Figure 101: Extract of demolition waste conversion (Source: Elephants Foot)

Material	Volume (m3)	*Tonnes (t)	**Approx. Percentage Recovered
Excavation Material	N/A	N/A	99.8%
Green waste	N/A	N/A	80%
Bricks	12.9	15.5	100%
Tiles	0.2	0.2	100%
Concrete	37.7	56.5	100%
Timber	3.8	0.7	33%
Plasterboard	15.7	3.1	50%
Metals	1	0.5	100%
Other waste	N/A	N/A	0%
Totals	71.3	76.5	

Figure 102: Extract of construction waste conversion (Source: Elephants Foot)

The skip bin storage area will be situated in the car park in the north-west of the site. Given the size of the site, dedicated stockpile areas will be allocated close to each building where works are proposed, with regular transfer to dedicated skip bins for sorting and collections.

To minimise impacts from construction and demolition waste Elephants Foot recommend:

- Induct/train contractors on construction and demolition waste management processes;
- Materials be ordered as to minimise potential wastage;
- Limit unnecessary excavation and select construction and building materials considering their lifespan and longevity;
- Where practical, reuse materials;
- Dispose of waste in accordance with Council standards;
- Include signage across the construction site advising of waste management strategies and in storage areas; and
- Waste collection for construction works will be conducted during approved hours as per Council requirements.

Operational Waste

Elephants Foot Consulting has prepared the OWMP (Appendix Z). The existing bin on the site includes:

- General waste: 4 x 4m³ bulk bins collected 2 x weekly
- Recycling: 4 x 4m³ bulk bins collected 1 x weekly

Given the increase in student and staff numbers, an additional general waste and recycling bin are each required. The total bins on-site will be:

- General waste: 5 x 4m³ bulk bins collected 2 x weekly
- Recycling: 5 x 4m³ bulk bins collected 1 x weekly

Elephants Foot has confirmed these bins will be located on either side of the McHatton Street car park consistent with current arrangement, see below. The caretaker, waste collection staff and cleaners will be the only personnel with access to the bin holding area.

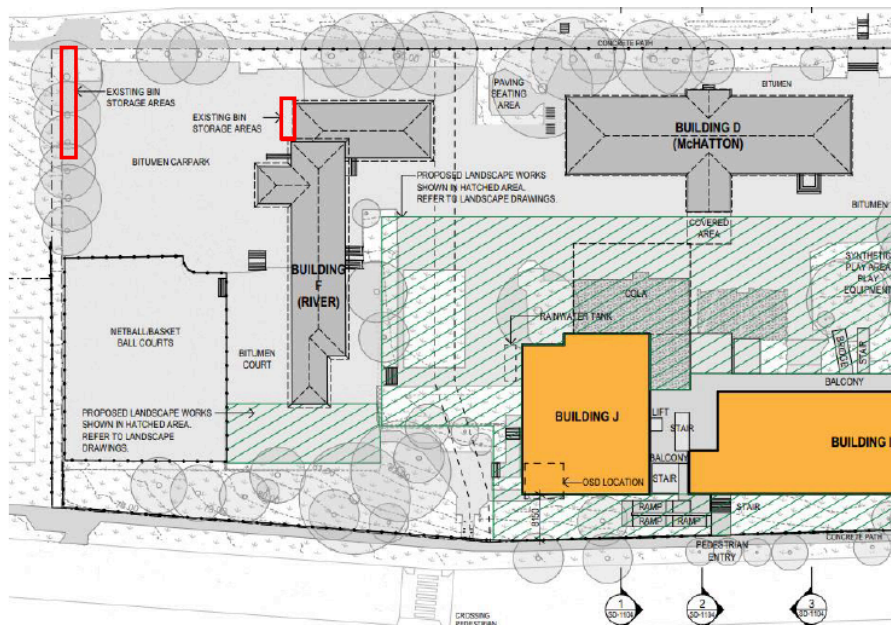


Figure 103: Proposed site plan with bin storage areas identified (Source: Elephants Foot)

Waste will continue to be collected by a private waste contractor from the car park in the north-west of the site consistent with current arrangements.

Staff and students will be educated on the correct separation of general waste and recyclables through:

- Signage
- Pollution prevention
- Allocated waste rooms/areas

Subject to implementation of the below mitigation measures, we consider the proposal's ongoing waste processes to be acceptable and in line with best practice measures.

7.17.3. Mitigation Measures

The proposed mitigation measures to minimise the waste impacts are outlined in Table 27.

Table 27: Construction and operational waste mitigation measures

ID	MITIGATION MEASURES
Part B - Prior to Commencement of Construction	
B32	Ensures routes for movement of waste from work site to storage area is clear of obstruction.
B33	Induct contractors on waste management processes during demolition and construction. Post signage across the construction site.
B34	Dispose of waste in accordance with Council standards.
B35	Waste to be collected during standard Council hours.

ID	MITIGATION MEASURES
Part C- During Construction	
C17	Select materials to minimise waste generation.
C18	Dispose of waste in accordance with Council standards.
C19	Waste to be collected during standard Council hours.
Part E- Post Occupation	
E7	Provision of signage in all waste disposal, storage and collection points to illustrate how to use the waste management system.

7.18. Contamination (SEAR 19)

7.18.1. SEAR

- Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. This must include the following prepared by certified consultants recognised by the NSW Environment Protection Authority:
 - Preliminary Site Investigation (PSI).
 - Detailed Site Investigation (DSI) where recommended in the PSI.
 - Remediation Action Plan (RAP) where remediation is required. This must specify the proposed remediation strategy.
 - Preliminary Long-term Environmental Management Plan (LEMP) where containment is proposed on-site.

Relevant Policies and Guidelines:

- Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP, 1998).
- Sampling Design Guidelines (EPA, 1995).
- Consultants Reporting on Contaminated land – Contaminated Land Guidelines (EPA, 2020).
- National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council, as amended 2013).

7.18.2. Assessment

Tetra Tech Coffey has prepared a PSI (Appendix J). At the time of preparing this EIS and the PSI, Greater Sydney was subject to a COVID-19 lockdown which limited construction activities and on-site testing. The PSI undertakes an assessment of potential ground contamination conditions within the site or may have arisen as a result of current/historical uses. In November 2019, Tetra Tech Coffey conducted a Geotechnical and Contamination Desktop Study. The investigation was undertaken prior to a concept plan for the upgrades had been developed. The potential sources of contamination identified included:

- The presence of uncontrolled fill of unknown quality or origin;
- Weathering of hazardous building materials.

The desktop study recommended further investigation be completed to refine the assessment of risk associated with the potential sources of contamination. Hence, a Limited Stage 2 Environmental Assessment for the site was prepared in November 2019. It identified:

- “Ground conditions encountered typically comprised a thin layer of fill underlain by residual soil described as firm to stiff, medium to high plasticity, grey-brown Clay. The residual soil unit was underlain by Shale bedrock.
- Suspected asbestos containing materials (ACM), stained and malodorous soils were not observed during this investigation.
- Laboratory analysis of fill samples collected during the investigation reported hydrocarbon compounds (i.e., Polycyclic Aromatic Hydrocarbons and Total Recoverable Hydrocarbons). Concentrations of carcinogenic PAH exceeded the health-based assessment criteria in some samples. The source of these hydrocarbons was considered to be attributable to asphalt inclusions within fill.
- Further investigation was recommended to characterise the quality of fill material within the development area to confirm whether the site is suitable for use as a school.”

Tetra Tech Coffey reviewed public information, conducted a site walkover and reviewed previous investigations. As noted in Section 2.13 of this EIS, the PSI concludes:

- “The site has functioned as a school dating back to the early 1930s and the buildings undergoing development were built in the 1930s and 1950s are indicated in aerial images and previous reports;
- Uncontrolled fill materials have been identified within the site due to the stepped topography. Localised filling of a historic air-raid bunker may also be present;
- Soil samples analysed from limited investigations completed within the site identified hydrocarbon compounds in full which could pose an unacceptable health risk to the current/future site users and workers conducting future development and/or subsurface maintenance works; and
- Potential asbestos containing materials and lead paint are suspected within some structures within the development area. Weathering such as materials typically result in the deposition of these materials in shallow surface soils surrounding each structure. Whilst it is noted that asbestos was not identified during previous investigations or recent walkers, this does not conclude the absence of such materials within shallow soils.”

In summary, Tetra Tech Coffey assess that the site can be made suitable for the proposed upgrades in accordance with SEPP 55. An intrusive investigation is recommended to be completed and presented in a DSI in accordance with guidelines published and/or endorsed by the NSW EPA. It is noted that an additional contamination investigation addressing the recommendations are currently planned to be carried out in the near future once access to site can be obtained and will form part of the RtS.

7.18.3. Mitigation Measures

The proposed mitigation measure should an unexpected contaminant be found during construction activities is outlined in Table 28.

Table 28: Construction and operational waste mitigation measures

ID	MITIGATION MEASURES
Part B - Prior to Commencement of Construction	
B36	Prepare an unexpected finds protocol to establish a framework for management should an isolated unexpected contamination occurrence be identified and accordingly will be disposed of appropriately.

7.19. Geotechnical and Structural (Plans and Documents)

7.19.1. SEAR- Plans and Documents

In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following:

- *Geotechnical and Structural Report.*

7.19.2. Geotechnical Assessment

Tetra Tech Coffey has prepared a Geotechnical Desktop Study (Appendix G). The geology and soil characteristics of the site are described in Section 2.12 of this EIS. At the time of preparing this EIS and the Geotechnical Desktop Study, Greater Sydney was subject to a COVID-19 lockdown which limited construction activities and on-site testing. Hence the Geotechnical Desktop Study utilised boreholes from the November 2019 investigation undertaken by Tetra Tech Coffey. Though the existing boreholes are not within the development footprint, the site conditions appear horizontally consistent. Tetra Tech Coffey conclude that depending on the final design details beyond the SSD, there may not be a need for significant further investigation. This will nonetheless be assessed post SSDA, when footing/column loads are known. Notwithstanding, Tetra Tech Coffey consider it prudent to drill more boreholes within the building footprint to ground truth pile locations and confirm expected bedrock conditions. This will also allow for more accurate pile-cage construction and increased confidence in anticipated ground conditions. They also recommend additional chemical testing of soils for aggressivity to concrete and steel structures to inform the concrete selection for piles post SSDA. Provided the aforementioned recommendations are implemented and the below mitigation measures undertaken, the proposal is considered acceptable with respect to geotechnics.

7.19.3. Geotechnical Mitigation Measures

The proposed mitigation measures to minimise geotechnical impacts are outlined in Table 29.

Table 29: Geotechnical mitigation measures

ID	MITIGATION MEASURES
Part C- During Construction	
C20	As practicable, the design of new structures be shallow pad or pile footings on weathered shale bedrock.
C21	Undertake bored pile footings for deep foundations. Particular attention to be given to ensuring the socket is cleared and roughened using a suitable scraper such as a tooth, orientated perpendicular to the auger shaft prior to pouring of concrete.
C22	For all footing design, where a Serviceability End Bearing Pressure of greater than 1,000kPa is adopted, the rock quality across the building footprint must be assessed by a cored borehole investigation.
C23	Prior to the commencement of construction, all footings to be inspected by a geotechnical engineer to confirm that a suitable founding stratum has been reached.

7.19.4. Structural Assessment

Aureon has prepared a Structural and Civil Report in Appendix BB. The report provides guidance on the structural design requirements including relevant codes and standards to comply with, static loading, lateral loads, load combinations, materials, structural steelwork and durability.

7.19.5. Structural Mitigation Measures

No structural mitigation measures are required at the SSDA stage.

7.20. Accessibility (Plans and Documents)

7.20.1. SEAR - Plans and Documents

In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following:

- *Accessibility Report*

7.20.2. Assessment

Philip Chun has prepared an Access Report which can be found at Appendix Q. Philip Chun has undertaken a preliminary assessment of the proposal against the Disability (Access to Premises Standards 2020) and the relevant Australia Standards. The proposal is generally capable of complying subject detailed documentation addressing specific details and requirements of access legislation, codes and standards CVDC stage. As discussed in this EIS, a significant benefit of the proposal is the provision of a fully DDA compliant access path from Bay Road as part of the new entrance.

7.20.3. Mitigation Measures

The proposed accessibility mitigation measures are outlined in Table 30.

Table 30: Access mitigation measures

ID	MITIGATION MEASURES
Part B- Prior to the Commencement of Construction	
B37	Prior to the commencement of construction, evidence of compliance with this condition from an appropriately qualified person is to be provided and that the requirements are referenced on any certified plans.

7.21. Cumulative Impacts

A review of Council's DA tracker identifies there are three minor development/modification applications under assessment in Waverton. Works involve minor changes to the Grumpy Baker, Waverton (85 Bay Road, Waverton) including provision of new air conditioning units and internal and external changes. Alterations and additions are proposed to the existing dwelling at 7A King Street, Waverton. Minor building modification and tree removal is proposed at 31 King Street, Waverton. These sites are sufficiently separated from the school and the relevant applications comprise minor works, hence will not cause cumulative impacts with the upgrades of the school.

Several applications are proposed and have recently been approved for sites in North Sydney in proximity of the site:

- Changed stormwater system, on-site retention system at 46 Edward Street, North Sydney. Approved 3 August 2021;
- Proposed strata subdivision 3/166 Pacific Highway, North Sydney. Under assessment;

- Proposed modification of operating hours of an existing gym at 101/150 Pacific Highway, North Sydney. Under assessment;
- Proposed modification of operating hours of an existing gym at 33 Berry Street, North Sydney. Under assessment; and
- Proposed alterations and additions to unit 1016 at 225 Pacific Highway, North Sydney. Under assessment.

These works are minor and are not anticipated to cause adverse cumulative impacts with the proposed upgrades to the school.

As discussed in Section 1.4 of this EIS, ancillary works are proposed on the site which will be undertaken as exempt development. These works include upgrades to the existing amenities in Buildings A, D and F, the canteen in Building D and relocation of services. These works will be undertaken in stages so as to minimise impacts on the school community. The use of different approval pathways (exempt and SSDA) will aid in staging the overall upgrades across the site and minimising potential noise and traffic impacts on surrounding properties.

8. MITIGATION MEASURES

Schedule 2 of the EP&A Regulation requires a full description of the measures proposed to mitigate any adverse effects of the development on the environment. The following measures have been compiled based on the provisions of the SEARs, the discussion undertaken in the previous sections of this EIS and following the review and consideration of issues raised in consultation with government agencies. They comprise a consolidated summary of all the proposed environmental management and monitoring measures. They provide a commitment by the DoE to prevent potential environmental impacts that have been identified through the assessment. This will ensure that the project is environmentally, socially and economically sustainable. Refer to the following table.

Table 31: Project mitigation measures

ID	MITIGATION MEASURES
Part A- Administration	
A1	The development is to be carried out in accordance with the Architectural Plans prepared by Fulton Trotter dated 18 August 2021.
A2	The development is to be carried out in accordance with the Landscape Plan prepared by Taylor Brammer dated 17 August 2021.
Part B - Prior to Commencement of Construction	
B1	Prior to commencement of construction, address the recommendations contained the Arboricultural Impact Assessment dated August 2021 to minimise impacts to retained trees.
B2	Evidence must be submitted to the satisfaction of the Certifying Authority that all outdoor lighting within the site has been designed to comply with AS 1158.3.1:2005 Lighting for roads and public spaces – Pedestrian area (Category P) lighting – Performance and design requirements and AS 4282-2019 Control of the obtrusive effects of outdoor lighting.
B3	The incumbent contractor will be required to ensure contractors working on the project are aware of the available transport options and encouraged to carpool. All workers and subcontractors will complete a site induction.
B4	A construction fence provided on Bay Road and internally within the school to provide safe pedestrian access. The fence is to consist of chain wire fencing along the remaining site boundaries and maintained for the duration of the construction program.
B5	Liaise with Council the altered parking restrictions on Bay Road to facilitate the new drop-off and pick-up.
B6	Unless otherwise agreed by the Planning Secretary, the applicant must demonstrate that ESD is being achieved by registering for a minimum 5-star Green Star rating with the Green Building Council Australia and submit evidence of registration to the Certifying Authority.
B7	Implement the recommendations made by Integral in the ESD Report dated August 2021.
B8	Prepare a Heritage Interpretation Strategy for the site to offset and mitigate heritage impacts that have been identified as unavoidable in the context of the feasibility of the design brief, such as minor physical and visual impact to the southern heritage fence. It should develop appropriate and meaningful interpretation initiatives to be installed as part of the works. For the new Bay Road entrance, the final interpretation product is to be developed in consultation with the regulatory bodies and appointed heritage consultant.

ID	MITIGATION MEASURES
B9	Prepare a full archival recording of structures and elements proposed for demolition including Building B, Building C and current, unimpacted form of the former Crows Nest Estate fenceline, particularly the southern elevation where the new entrance is proposed.
B10	In consultation with a structural engineer and heritage architect finalise the detailed design of the new entrance from Bay Road to minimise impacts to the existing fabric.
B11	All contractors undertaking earthworks are to undergo induction on identifying Aboriginal heritage objects, protection of Aboriginal heritage objects under the <i>National Parks and Wildlife Act 1974</i> and penalties for damage to these items.
B12	Proactive and ongoing engagement with the school community and local community to build awareness and preparedness for the construction program.
B13	Implement a child-focussed educational program focused on safety around construction sites.
B14	Work with the community user group to plan for disruption and identify potential issues that may impact continuation of educational service through the construction program. Consult with Council as required.
B15	Ongoing engagement with the Aboriginal stakeholders.
B16	Prepare a detailed CMP addressing noise, dust and traffic mitigation measures.
B17	Prepare and implement a CNVMP once the detailed construction methodology is available, having regard to the recommendations for inclusion by Marshall Day Acoustics dated August 2021.
B18	Undertake detailed traffic noise measurements and analysis to assess the potential impact on residential receivers along the surrounding local roads. Implement any recommendations that arise from that assessment.
B19	As required, update the Construction Management Plan and Preliminary Construction Traffic Management Plan.
B20	Educate the school and wider community on the staging plan and construction program.
B21	Obtain approvals from relevant service providers to deliver utility infrastructure.
B22	As required, update to the sediment and erosion control plan.
B23	Provision of sediment fences to the perimeter of the construction area as required.
B24	Nominate specific areas for plant and construction material storage.
B25	Diversion of upstream stormwater runoff around disturbed areas of the development as required.
B26	Immediate stabilisation of disturbed areas as required.
B27	Designation and marking of transport routes across the site to minimise dust disturbance.
B28	Provision of rock pad or shaker grid on the site's construction exit.
B29	Provision of stormwater inlet protection devices to existing stormwater inlet structures within the site, and within the roadway immediately downstream of the site.
B30	Education of site personnel to the sediment and erosion control measures implemented on-site.

ID	MITIGATION MEASURES
B31	Prepare and implement a sediment and erosion control plan in accordance with Council's requirements and Managing Urban Stormwater Soil and Construction 2004 (Blue Book)
B32	Ensures routes for movement of waste from work site to storage area is clear of obstruction.
B33	Induct contractors on waste management processes during demolition and construction. Post signage across the construction site.
B34	Dispose of waste in accordance with Council standards.
B35	Waste to be collected during standard Council hours.
B36	Prepare an unexpected finds protocol to establish a framework for management should an isolated unexpected contamination occurrence be identified and accordingly will be disposed of appropriately.
B37	Prior to the commencement of construction, evidence of compliance with this condition from an appropriately qualified person is to be provided and that the requirements are referenced on any certified plans.
Part C - During Construction	
C1	During construction, implement recommendations contained the Arboricultural Impact Assessment dated August 2021 to minimise impacts to retained trees.
C2	<p>Construction of the proposal will be undertaken during the following standard hours:</p> <ul style="list-style-type: none"> Monday to Friday: 7:00am to 5.00pm Saturday: 8:00am to 1:00pm Sunday and Public Holidays: No work <p>It is noted that no construction deliveries between 7:30am and 9:00am and 1:30pm and 3:00pm on school days are permitted.</p>
C3	Traffic control be provided, as required, to regulate movements in and out of the site during construction in accordance with AS1742.3 and RMS "Traffic Control at Worksites" manual at all times.
C4	The work zone will be managed via construction scheduling set by the incumbent contractor to ensure no queuing or parking on local streets occur.
C5	Disruption to road users is to be kept to a minimum by scheduling intensive delivery activities outside of peak network hours.
C6	<p>If any objects are found during construction that is suspected to be an Aboriginal object or material, the following process is to be followed:</p> <ul style="list-style-type: none"> No further harm or do not move the object; Immediately cease work at that particular location; Secure the area so as to avoid further harm to the Aboriginal object; Notify a qualified archaeologist as soon as possible to inspect, assess and, if necessary, record the object of material; Immediately notify Heritage NSW if the object of material is Aboriginal cultural heritage material on 131555, providing any details of the Aboriginal object and its location, and; <p>Not recommence any work at that particular location unless authorised in writing by Heritage NSW.</p>
C7	If any object is found suspected to be human remains, the following process must be followed:

ID	MITIGATION MEASURES
	<ul style="list-style-type: none"> Prevent all personnel and vehicular access to or near the object; Immediately contact NSW Police; Immediately notify Heritage NSW on 131555, noting potential Aboriginal human remains and providing any details of the object and its location; Contact the project archaeologist; and <p>Not recommence any work at that particular location unless authorised in writing by Heritage NSW.</p>
C8	Establish clear site entry and exist points for construction, separate from the general school community.
C9	Proactive and ongoing engagement with the school community and local community to identify issues during the construction process.
C10	Establish bi-weekly progress meetings involving the contractor, SINSW and school staff to identify issues and proactively address as required.
C11	<p>Construction of the proposal will be undertaken during the following standard hours:</p> <ul style="list-style-type: none"> Monday to Friday: 7:00am to 5.00pm Saturday: 8:00am to 1:00pm Sunday and Public Holidays: No work <p>It is noted that no construction deliveries between 7:30am and 9:00am and 1:30pm and 3:00pm on school days are permitted.</p>
C12	Prior to the release of any stormwater from the site, water quality samples are to be taken and analysed.
C13	Monitoring of stormwater quality discharging from the development and the implementation of additional measures/modification of existing measures if the quality of stormwater discharging from the site will have a negative impact. The quality of stormwater released from the site is to meet the NSC's stormwater quality standards.
C14	Construction activities are to be limited to the designated construction area(s).
C15	Regular inspection and maintenance of erosion control measures. Following rainfall events greater than 200mm, inspection of erosion control measures and removal of collected material shall be undertaken. Replacement of any damaged equipment shall be performed immediately.
C16	Monitoring of water quality impacts from construction activities as appropriate. Any erosion and sediment control devices that are not performing adequately to meet NSC standards are to be replaced or supplemented with additional measures.
C17	Select materials to minimise waste generation.
C18	Dispose of waste in accordance with Council standards.
C19	Waste to be collected during standard Council hours.
C20	As practicable, the design of new structures be shallow pad or pile footings on weathered shale bedrock.
C21	Undertake bored pile footings for deep foundations. Particular attention to be given to ensuring the socket is cleared and roughened using a suitable scraper such as a tooth, orientated perpendicular to the auger shaft prior to pouring of concrete.
C22	For all footing design, where a Serviceability End Bearing Pressure of greater than 1,000kPa is adopted, the rock quality across the building footprint must be assessed by a cored borehole investigation.

ID	MITIGATION MEASURES
C23	Prior to the commencement of construction, all footings to be inspected by a geotechnical engineer to confirm that a suitable founding stratum has been reached.
Part E - Post Occupation	
E1	The School Transport Plan must be implemented and updated annually.
E2	Implement the School Transport Plan prepared by Ason Group dated August 2021.
E3	Implement DoE's community use of school facilities policy to promote utilisation of new facilities.
E4	Identify opportunities to build partnerships with Aboriginal stakeholders to develop educational programs.
E5	Inform the community of noise events and no events to be held between 10pm and 7am.
E6	Provide contact number of the relevant persons employed to communicate with the community during noisy events.
E7	Provision of signage in all waste disposal, storage and collection points to illustrate how to use the waste management system.

9. ENVIRONMENTAL RISK ASSESSMENT

This section provides an environmental risk assessment (ERA) of the development proposed under this SSDA. The ERA addresses the following significant environmental risk issues:

- Adequate baseline data;
- Consideration of potential cumulative impacts due to other development in the vicinity; and
- Measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment.

The following table sets out the anticipated impacts, the level of respective impact in terms of severity (low, medium, high and positive), identifies mitigation measures, and once these measures are applied, identifies residual risks (low, medium, high or nil (where there is a positive impact)).

A full list of the mitigation measures is presented in the section above.

Table 32: Risk assessment matrix

MATTER FOR CONSIDERATION	PHASE	POTENTIAL IMPACT	LEVEL OF IMPACT	MANAGEABILITY OF IMPACT/MITIGATION MEASURES	RESIDUAL IMPACT
Built form/ visual impact	Construction	Visual impact from construction activities.	Medium	Provision of site fencing outside and inside the site to screen construction works.	Low
	Operation	Visual impact from proposed built form from Bay Road.	Medium	Provide perimeter planting in accordance with Appendix C and deliver the built form which is high quality and articulated in accordance with Appendix B.	Low
Amenity (internal)	Operation (construction addressed in traffic, noise, vibration, parking and air quality)	Maintaining the high-quality learning spaces.	Low	Maintenance matters to be attended to promptly.	Low
Amenity (external)	Operation (construction addressed in traffic, noise, vibration, parking and air quality)	Maintaining the high-quality outdoor learning and active spaces.	Low	Maintenance matters to be attended to promptly.	Low
Amenity	Operation	Maintaining high amenity	Low	Implement acoustic	Low

MATTER FOR CONSIDERATION	PHASE	POTENTIAL IMPACT	LEVEL OF IMPACT	MANAGEABILITY OF IMPACT/MITIGATION MEASURES	RESIDUAL IMPACT
(external)	(construction addressed in traffic, noise, vibration, parking and air quality)	for nearby properties.		recommendations during operation (Appendix K). Deliver the proposal as shown in Appendix B and C to minimise overshadowing, privacy and built form impacts.	
Tree removal	Construction	Removal of trees in accordance with Appendix M.	Medium	Tree removal and protection of existing trees to be undertaken in accordance with the recommendations in Appendix M. Additional tree planting to be provided in accordance with Appendix C.	Low
Contamination	Construction	Identification of contamination materials including asbestos during construction activities.	Medium	Prior to the commencement of works, an expected finds protocol will be prepared and implemented during construction.	Low
Flooding	Construction Operation	N/A – site is not flood prone.	Nil	N/A	Nil
Biodiversity	Construction Operation	Removal of the Eucalyptus nicholii.	Low	Remove the tree in accordance with the arborist recommendations (Appendix M).	Low
Geotechnical	Construction Operation	N/A – no geotechnical constraints for the site.	Nil	N/A	Nil
Acoustic impact	Construction	Noise generated from construction activities expected to exceed noise limits for noise affected receivers.	High	Prior to commencement of construction a CNVMP will be prepared to manage construction noise and vibration.	Low
	Operation	Noise generated from plant equipment, use of the hall, school bells, new classrooms and traffic generation.	Medium	Implement acoustic recommendations in Appendix K including undertaking further testing and preparing an CVNMP.	Low
Vibration impact	Construction	Vibration generated from construction activities.	High	Prior to commencement of construction a CNVMP will be	Low

MATTER FOR CONSIDERATION	PHASE	POTENTIAL IMPACT	LEVEL OF IMPACT	MANAGEABILITY OF IMPACT/MITIGATION MEASURES	RESIDUAL IMPACT
				prepared to manage construction noise and vibration.	
Traffic	Construction	Increased number of vehicles accessing the site during construction specifically civil work and main works.	Medium	A detailed CTMP will be prepared prior to commencement of works. Construction vehicles and routes will be limited in accordance with the PCTMP in Appendix N.	Low
	Operation	Traffic congestion during peak drop-off and pick-up times.	Medium	Post occupation, the School Transport Plan is to be implemented and updated annually to manage drop-off and pick-up activities.	Low
Parking	Construction	Overflow of parking onto residential streets during construction.	Medium	In accordance with the PCTMP (Appendix N), contractor will encourage car-pooling and public transport.	Low
	Operation	N/A – existing car park can accommodate the increase in staff as it exceeds the NSDCP parking requirements.	Nil	N/A	Nil
ESD	Construction	N/A – primary consideration during operation.	Nil	N/A	Nil
	Operation	A range of measures are proposed as outlined in Section 7.5 of this EIS to provide for a development which is consistent with ESD principles.	Positive	N/A	Nil
Aboriginal cultural heritage and archaeology	Construction	The very unlikely event an Aboriginal object or human remains material are found during construction.	Low	Follow the process detailed in Section 7.7 of this EIS.	Low

MATTER FOR CONSIDERATION	PHASE	POTENTIAL IMPACT	LEVEL OF IMPACT	MANAGEABILITY OF IMPACT/MITIGATION MEASURES	RESIDUAL IMPACT
European Heritage	Construction	Impact to the heritage fence with provision of a new access point from Bay Road and minor physical impacts with demolition of Building B and C	Medium	Implement mitigation measures including preparation of a Heritage Interpretation Strategy, archival recording of items proposed for demolition and, engagement of structural engineer and heritage architect to provide input on the detailing of the new entrance/heritage items.	Low

10. CONCLUSION

This EIS provides a comprehensive assessment of the environmental, social and economic impacts of the subject SSDA for upgrades to the existing North Sydney Public School. This EIS has addressed the requirements of the SEARs, as well as the relevant requirements contained in Schedule 1 and 2 of the EP&A Regulation.

The proposal has been assessed against all items contained within the SEARs for the project and we conclude that:

- The proposal satisfies the applicable local and state planning policies;
- The design positively responds to the site conditions and envisaged urban morphology for the locality;
- The proposal is highly suitable for the site given it relates to an ongoing educational use;
- The proposal is in the public's interest and it will enhance the provision and quality of public education within the catchment; and
- The proposal addresses the requirement for upgraded education facilities in the area and the increase in demand for enrolment places.

The site is considered highly suitable for the proposal for the following reasons:

- The site is an existing educational establishment, being zoned to permit that purpose under the SP2 Infrastructure (Educational Establishments) zoning;
- The proposal is consistent with the objectives of all relevant planning controls and achieves a high level of planning policy compliance;
- There are no significant environmental constraints limiting development on the site; and
- The proposal will not generate unreasonable impacts on the surrounding locality, subject to the implementation of mitigation measures in this EIS.

The proposal is in the public interest because:

- The proposed upgrades are permissible with development consent and have been prepared having regard to the ESEPP, SRD SEPP and NSLEP;
- The proposal is suitable for the site as evidenced by the site analysis and various site investigations including geotechnical, contamination, soil and water, utilities, biodiversity, heritage, Aboriginal heritage and archaeology and flooding;
- Subject to the various mitigation measures recommended by specialist consultants and detailed in this EIS, the proposal does not result in unacceptable impacts on adjoining or surrounding properties or the public domain in terms of traffic, social and environmental impacts;
- The site will be serviced by the well-established/existing transport network, noting the upgrades involve enhanced accessibility, through provision of an additional drop-off and pick-up area on Bay Road and a new DDA compliant pedestrian entrance;
- The proposal will deliver a high-quality education environment for students, staff and visitors. The development:
 - Provides efficient and environmentally sustainable facilities;
 - Improves the tree canopy cover to 33% to assist with ameliorating the urban heat island effect and provide a high-quality landscaped focused environment;
 - Opens up the central courtyard and improves the provision of indoor and outdoor learning spaces;;
 - Seeks to enhance the connection to country; and
 - Delivers an inclusive, supportive and safe environment for all students and staff.

- The proposed upgrades make a positive contribution to the built form on Bay Road and the wider school site; and
- Consultation with stakeholders has positively informed the development of the SSDA design.

Considering the above and content contained within this EIS, it is recommended that this SSDA be approved, subject to appropriate conditions reflecting the mitigation measures in Section 8.