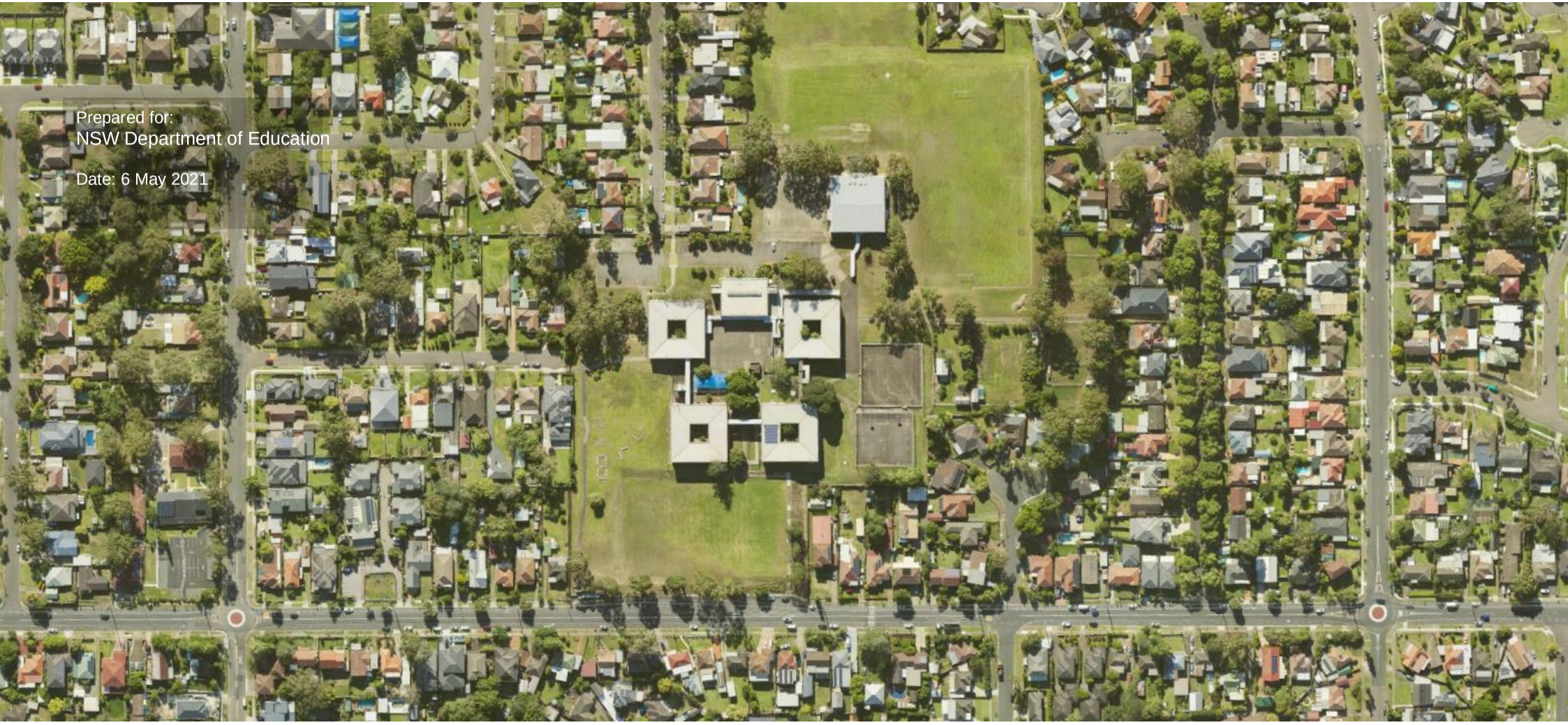

Environmental Impact Statement
State Significant Development Application No. 9579147

Pendle Hill High School Upgrade

architectus™

Architectus Australia Pty Ltd
ABN 90 131 245 684

Adelaide
Lower Ground Floor
57 Wyatt Street
Adelaide SA 5000
T +61 8 8427 7300
adelaide@architectus.com.au

Brisbane
Level 2, 79 Adelaide Street
Brisbane QLD 4000
T +61 7 3221 6077
brisbane@architectus.com.au

Melbourne
Level 25, 385 Bourke Street
Melbourne VIC 3000
T +61 3 9429 5733
F + 61 3 9429 8480
melbourne@architectus.com.au

Perth
QV1 Upper Plaza West
250 St Georges Terrace
Perth WA 6000
T +61 8 9412 8355
perth@architectus.com.au

Sydney
Level 18, MLC Centre
19 Martin Place
Sydney NSW 2000
T +61 2 8252 8400
F +61 2 8252 8600
sydney@architectus.com.au

architectus.com.au

Report Contact

Jane Fielding
Senior Associate, Planning
jane.fielding@architectus.com.au

6 May 2021

Revision history

Issue Reference	Issue Date	Issue Status
N/A	23 April 2021	Draft for ToA
Final	6 May 2021	Final EIS

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Statement of Veracity

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

Jane Fielding
Senior Associate, Planning
Bachelor of Landscape Architecture (University of Canberra)
Master of Social Science (International Urban and Environmental Management) (RMIT University)
Member, Planning Institute of Australia (PIA)

Jonathan Archibald
Associate, Planning
Bachelor of Planning, Macquarie University

Genevieve Hastwell
Senior Urban Planner
Bachelor of Arts, Bachelor of Economics, University of Western Australia
Master of City Planning, University of New South Wales

Address:

Architectus Group Pty Ltd
Level 18 MLC Centre, 19 Martin Place
Sydney NSW 2000

In respect of:

State Significant Development Application (SSD-9579147) for the proposed Pendle Hill High School upgrade, comprising the construction of a new school building, including associated core infrastructure, play areas, associated landscaping works and improvements to the adjoining road network (as described in Section 3 of this EIS).

Applicant:

NSW Department of Education
C/– Architectus Australia Pty Ltd

Land to be developed:

66 Binalong Road, Toongabbie. The site is described as Lot 1 in Deposited Plan 1141329.

Declaration:

It is declared to the best of my knowledge that:

- This Environmental Impact Statement has been prepared in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000;
- This Environmental Impact Statement contains all available information that is relevant to the environmental assessment of the proposed development; and
- The information contained in this report is neither false nor misleading.



Jane Fielding	Jonathan Archibald	Genevieve Hastwell
6 May 2021	6 May 2021	6 May 2021

Executive Summary

Preliminary

This Environmental Impact Assessment (EIS) has been prepared by Architectus Australia Pty Ltd on behalf of the NSW Department of Education (the applicant) in support of a State Significant Development (SSD) Application (SSD-9579147) for upgrades to the existing Pendle Hill High School, located at 66 Binalong Road Toongabbie (the site).

This EIS should be read in conjunction with the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning, Industry and Environment (DPIE) on 26 October 2020 at **Appendix A** and the supporting technical documents provided at **Appendices B through AC.**

Location

Pendle Hill High School site is located at 66 Binalong Road, Toongabbie. The site has a total site area of 66,411 square metres and is legally described as Lot 1 in Deposited Plan 1141329.

The school is bound by residential development and Favell Street to the north; Binalong Road to the east; residential development, Knox Street and Cornock Avenue to the south; and residential development and Bungaree Road to the west. The site has frontage to Binalong Road, however the primary location for school drop-off and pick-up is on Cornock Avenue.

Pendle Hill High School is currently a co-educational high school and includes six existing buildings (designated Buildings A through F) comprising teaching spaces, administration and reception, canteen, a library and a multi-purpose hall; a car park, three outdoor play areas, three sports courts and agricultural plots. Buildings A, B, C, D and E are linked by a covered walkway with a central open-air quadrangle.

Proposed Development

NSW Department of Education propose to undertake an upgrade of the existing Pendle Hill High School to increase the capacity of the school to 1,320 students to meet growth demands by 2023, an increase of 240 students over existing capacity.

To achieve this objective, some additional teaching spaces need to be provided and core facilities enlarged and upgraded. The proposed redevelopment includes:

- Construction of a new three-storey courtyard building on Binalong Road comprising two (2) three-storey wings under a connected roof which will accommodate a library, staff unit, lecture, multimedia and senior learning, administration unit and student amenities and amenities;
- External transport infrastructure upgrade works;
- New covered walkways;
- Upgraded landscaping;
- One (1) building identification sign and one (1) community information sign (digital and LED notice board) on the Binalong Road frontage;
- Category 1 site remediation works;
- Reconfiguration of the existing at-grade car park to make compliant with current Australian Standards; and

- New hard stand areas for bicycle parking.

The upgrade of Pendle Hill High School is required in order to allow for:

- Enlarged and enhanced core facilities;
- 14 additional permanent learning spaces; and
- Improved street presence and improved access into the school.

Note: the original Request for SEARs included refurbishment of existing buildings in the school however this is no longer included in the subject SSDA as consent will be sought for the refurbishment under a Complying Development application.

Consultation

The proponent team has undertaken consultation with relevant authorities and stakeholders, as required by the SEARs and consultation with the school community and local community. The issues discussed and raised during these consultations have been addressed as part of the proposal. Consultation and outcomes have been addressed in detail at Section 4 of the EIS.

Planning Framework and Assessment

The proposed development is classified as SSD on the basis that it falls within the requirements of Clause 14 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP), being development for the purpose of alterations or additions to an existing school that has a Capital Investment Value (CIV) of over $20 million.

The upgrade of Pendle Hill High School has been assessed against the SEARs issued for the project and the planning framework. In summary:

Statutory and strategic planning context

The proposal has been assessed against relevant strategic policies and planning controls and is found to be consistent with these, as detailed within Section 5 of this EIS. Additionally, the proposal satisfies the SEARs as demonstrated in this EIS.

Local impacts

The proposed Pendle Hill High School upgrade will not cause unacceptable impacts on neighbouring residential properties or the public domain. Subject to the various mitigation measures recommended at **Section 7** of this report, the proposal will not have unreasonable traffic, heritage, economic, social and environmental impacts on adjoining or surrounding properties or the public domain. It will provide the student capacity requirements of the catchment.

Where there are impacts, these can be sufficiently ameliorated through mitigation measures and design development.

Suitability of the site

Pendle Hill High School is an existing school and the proposed upgrades will ensure its longevity as a school is maintained without significantly affecting the local character of the area.

There are no known site conditions which would prevent the undertaking of the proposed development, including geotechnical conditions, contamination, flooding, biodiversity, Aboriginal cultural heritage, or other. The site is well serviced by public transport.

The site is considered suitable for the proposed development.

Public interest

The proposed Pendle Hill High School upgrade offers significant public benefits to the users of the school and broader community. Key benefits of the project are:

- It responds to local demand for educational facilities and will deliver important public social infrastructure that will benefit the local community;
- It will provide permanent and state of the art teaching facilities for students;
- It will provide improved landscaping, tree canopy, and shade cover for students compared with the existing situation. The proposal includes landscaping between the school and adjoining residents and improved amenity for users of the space;
- Improved community access to site and its facilities (for example the library and lecture theatre);
- The new building will be designed to a 5-star Green Star Design standard, improving environmental performance of the school; and
- It will generate 44 construction jobs and 18 additional school staff roles, and together with the value of the project to the economy, will stimulate the economy.

On balance, accounting for site suitability, environmental impacts, risk assessment and key benefits, the proposed development is in the public interest.

Given the above it is considered that the proposed development has merit and can be supported by the Department of Planning, Industry and Environment and the Minister for Planning and Public Spaces.

Secretary's Environmental Assessment Requirements

SEARs for the project were issued under Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) by DPIE on 18 June 2020. Refer to the SEARs in full at **Appendix A** to this report.

Table 1 below provides a summary of the SEARs and identifies the section of the report where the relevant requirement is addressed and/or the appendix reference for the specialist consultant's report associated with that requirement.

Table 1 Secretary's Environmental Assessment Requirements

Item/ Description	Document Reference
General Requirements	
Clause 6 of Schedule 2 of EP&A Regulation An EIS must contain the following:	
6(a) EIS author	***Statement of veracity***
6(b) contact details of the responsible person	***Statement of veracity***
6(c) the address of the land	***Statement of veracity***
6(d) development description	***Section 3****: Proposed development*
6(e) assessment of impact	***Section 6:*** *Environmental Assessment*
6(f) author's declaration	***Statement of veracity***
Clause 7 of Schedule 2 of EP&A Regulation An EIS must also include:	
(1)(a) summary of EIS	***Executive Summary***
(1)(b) EIS objectives	*Section 1.3*
(1)(c) analysis of feasible alternatives	*Section 1.8*
(1)(d) analysis of development	
(d)(i) full description	*Section 3.1*
(d)(ii) general description of the environment likely to be affected	***Section 3****: The proposed development*
(d)(iii) likely impact on the environment	***Section 6:*** *Environmental Assessment*
(d)(iv) mitigation measures	***Section 8****: Recommendations and Mitigation Measures*
(d)(v) approvals required	***Section5:*** *Statutory and Strategic Context*
Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.	***Section 6****: Environmental Assessment* *Appendix E – Appendix AC*
In addition, the EIS must include: – an executive summary. – a complete description of the development, including: o the need for the development. o justification for the development. o suitability of the site o alternatives considered o likely interactions between the development and existing, approved and proposed operations in the vicinity of the site o a description of any proposed building works. – a description of existing and proposed operations, including:	***Executive Summary*** ***Section 3:*** *The proposed development* *Section 3.10*

Item/ Description	Document Reference
○ staff and student numbers, hours of operation, and details of any proposed before/after school care services and/or community use of school facilities. ○ 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 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 or 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: ○ a description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions. ○ an assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and future developments. The assessment must consider any relevant legislation, policies and guidelines. ○ consideration of the cumulative impacts due to 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. – 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. The EIS must be accompanied by a report from a qualified quantity surveyor providing a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived.	*Appendix B* *Appendix E* *Appendix E* *Appendix E* *Appendix E* *Appendix E* *Section 3.8* *Section 3.7 & Appendix M* ***Section 2:** Site Analysis* ***Section 6:** Environmental Assessment* *Section 6.20* ***Section 8:** Recommendations and Mitigation Measures* *Section 1.8* ***Section 8:** Mitigation Measures* *Section 1.9* *Section 1.6 and under a separate cover*
Key Issues The EIS must address the following specific matters:	
1. Statutory and Strategic Context	
Address the statutory provisions contained in all relevant environmental planning instruments, including: – *State Environmental Planning Policy (State & Regional Development) 2011*	***Section 5:** Statutory and Strategic Planning context*

Item/ Description	Document Reference
– *State Environmental Planning Policy (Infrastructure 2007) State Environmental Planning Policy (Educational Establishments 2 and Child Care Facilities) 2017* – *State Environmental Planning Policy No. 64 – Advertising and Signage* – *State Environmental Planning Policy No.55 – Remediation of Land* – *Draft State Environmental Planning Policy (Remediation of Land)* – *Draft State Environmental Planning Policy (Environment)* – *Parramatta Local Environmental Plan 2012*	
Permissibility Address the permissibility of the development, including the nature and extent of any prohibitions.	***Section 5:*** *Statutory and Strategic Context*
Development Standards Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.	***Section 5:*** *Statutory and Strategic Context*
Provisions Adequately demonstrate and document in the EIS how each of the provisions in the listed instruments are addressed, including reference to necessary technical documents.	*Environmental Impact Statement*
2. Policies	
Address the relevant planning provisions, goals and strategic planning objectives in the following: – NSW State Priorities – The Greater Sydney Regional Plan, A Metropolis of Three Cities – Future Transport Strategy 2056 – State Infrastructure Strategy 2018 – 2038 Building the Momentum – Sydney's Cycling Future 2013 – Sydney's Walking Future 2013 – Sydney's Bus Future 2013 – Crime Prevention through Environmental Design (CPTED) Principles – Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017) – Healthy Urban Development Checklist (NSW Health, 2009) – Draft Greener Places Policy – The Greater Sydney Region Plan - A Metropolis of Three Cities – Sydney's Cycling Future 2013 – Sydney's Walking Future 2013 – Sydney's Bus Future 2013 – Central City District Plan – Parramatta Development Control Plan 2011 – Community Infrastructure Strategy (City of Parramatta Council, 2020)	***Section 5****: Statutory and strategic planning context*
3. Built Form and Urban Design	
Address: – the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces, including legibility from the bus stops along Binalong, Burrabogee and Ballendella Road and the site, and the inclusion of a pedestrian link connecting Binalong Road, Knox Road and Cornock Avenue and the site. – design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours.	*Section 6.1* *Appendix E & F*

Item/ Description	Document Reference
– 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. – details of any digital signage boards, including size, location and finishes. – 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. *Note: Further guidance is provided in the City of Parramatta Council advice attached to the SEARs.* <u>*Relevant Policies and Guidelines:*</u> – Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning, 2008)	
4. Tree Removal and Landscaping	
Provide: – 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 and existing canopy coverage on-site and all trees within three metres of common property boundaries. – a detailed site-wide landscape strategy, that: o details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage. o considers equity and amenity of outdoor play spaces, and integration with built form, security, shade, topography and existing vegetation. o demonstrates how the proposed development would: – contribute to long term landscape setting in respect of the site and the streetscape. – mitigate the urban heat island effect and ensure appropriate comfort levels on-site. – contribute to objectives to increase urban tree canopy cover. – a detailed landscape plan prepared by a suitably qualified person. *Note: Further guidance is provided in the City of Parramatta Council advice attached to the SEARs*. <u>*Relevant Policies and Guidelines:*</u> – Australian Standard 4970 Protection of trees on development sites (AS 4970 – 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).	*Section 3.10 & Appendix I* *Section 3.11 & Appendix H* *Section 3.11 & Appendix G*
5. Environmental Amenity	
– Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity,	*Section 6.4*

Item/ Description	Document Reference
overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. – Provide: o shadow diagrams. o a view analysis of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development. o an analysis of proposed lighting that identifies measures to reduce spill into the surrounding sensitive receivers. o details of any proposed use of the school outside of school hours (including weekends) and measures to mitigate any identified amenity impacts on the immediate locality. o 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.	*Appendix E*
6. Transport and Accessibility	
Include a transport and accessibility impact assessment, which details, but not limited to the following:	*Appendix L*
– analysis of the existing (and proposed / future) transport network, including: o road hierarchy. o pedestrian, cycle and public transport infrastructure. o details of current and future daily and peak hour vehicle movements based on traffic surveys and / or existing traffic studies relevant to the locality. o existing performance levels of nearby intersections utilizing appropriate traffic modelling methods (such as SIDRA network modelling).	*Section 6.5 & Appendix L*
– details of the proposed development, including: – a map of the proposed access which identifies public roads, bus routes, footpaths and cycleways. – vehicular access arrangements, including for service and emergency – vehicles and loading/unloading, showing compliance with the requirements – of relevant Australian Standards, 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, sight line requirements and aisle width. – car parking, including vehicle circulation, proposed number of car parking – spaces and compliance with the appropriate parking codes. – bicycle parking and end-of-trip facilities, including number of spaces and compliance with the appropriate codes and standards. – drop-off / pick-zone(s) and bus bay(s) within the school facility and/or on – neighboring locations along the road network.	*Section 6.5 & Appendix L*

Item/ Description	Document Reference
– pedestrian or road infrastructure improvements or safety measures.	
– analysis of the impacts due to the operation of the proposed development, including:	*Section 6.5 & Appendix L*
o proposed modal split for all users of the development including vehicle, pedestrian, cyclist, public transport and other sustainable travel modes.	
o estimated total daily and peak hour vehicular trip generation.	*Section 6.5 & Appendix L*
– a clear explanation and justification of the:	
o assumed growth rate applied.	
o volume and distribution of proposed trips to be generated.	
o type and frequency of 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 period (using SIDRA network modelling). The key intersections to be modelled/examined include but are not limited to	*Section 6.5 & Appendix L*
o Binalong Road/Burrabogee Road; and	
o Bungaree Road/Burrabogee Road.	
– cumulative traffic impacts from any surrounding approved development(s).	
– adequacy of pedestrian, bicycle and public transport infrastructure to accommodate the development.	
– adequacy of car 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:	*Section 6.5 & Appendix L*
o travel demand management measures to encourage sustainable transport (such as a Green Travel Plan and / or specific Workplace Travel Plan).	
o road upgrading and/or infrastructure improvements, including details of timing and method of delivery.	
– a preliminary operational traffic and access management plan for the site, the drop-off / pick-up zone(s) and bus bay(s).	*Section 6.5 & Appendix L*
– analysis of the impacts of the traffic generated during construction of the proposed development, including:	*Appendix N*
o construction vehicle routes, types and volumes.	
o construction program (duration and milestones).	
o on-site car parking and access arrangements for construction, emergency and construction worker vehicles.	
o cumulative impacts associated with other construction activities in the locality (if any).	
o road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality.	

Item/ Description	Document Reference
○ 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.* <u>Relevant Policies and Guidelines:</u> – 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). Note: Further guidance is provided in the City of Parramatta Council advice attached to the SEARs.	*Appendix N* *Appendix L & N*
7. Ecologically Sustainable Development	
– Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design and ongoing operation phases of the development. – proposed measures to minimize consumption of resources, water (including water sensitive urban design) and energy. – how the 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). Include: – an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level. – a statement regarding how the design of the future development is responsive to the CSIRO 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. <u>Relevant Policies and Guidelines:</u> – *NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections.*	Section 6.6 & Appendix Y Section 6.6 & Appendix Y Section 6.6 & Appendix Y Section 6.6 & Appendix Y Section 6.6 & Appendix Y Section 6.6 & Appendix Y Section 6.6 & Appendix Y Section 6.6 & Appendix Y
8. Aboriginal Cultural Heritage	
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	Section 6.1 & Appendix M

Item/ Description	Document Reference
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.	
Any Aboriginal objects recorded as part of the aboriginal Cultural Heritage Assessment must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.	Section 6.1 & Appendix M
9. Social Impacts	
– Prepare a social impact assessment, which:	
o identifies and analyses the potential social impacts of the development, from the points of view of the affected community/ies and other relevant stakeholders, i.e. how they expect to experience the project	Section 6.7 & Appendix K
o considers how potential environmental changes in the locality may 7 affect people's: way of life; community; access to and use of infrastructure, services, and facilities; culture; health and wellbeing; surroundings; personal and property rights; decision-making systems; and fears and aspirations, as relevant and considering how different groups may be disproportionately affected	Section 6.7 & Appendix K
o assesses the significance of positive, negative, and cumulative social impacts considering likelihood, extent, duration, severity/scale, sensitivity/importance, and level of concern/interest	Section 6.7 & Appendix K
o includes mitigation measures for likely negative social impacts, and any proposed enhancement measures	Section 6.7 & Appendix K
o details how social impacts will be adaptively monitored and managed over time.	Section 6.7 & Appendix K
10. Noise and Vibration	
Provide a noise and vibration impact assessment that:	Section 6.8 & Appendix X
– includes a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation and construction.	Section 6.8 & Appendix X
– 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.	Section 6.8 & Appendix X
– 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.	

Item/ Description	Document Reference
– outlines measures to minimize 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 polices and guidelines relevant to the context of the site and the nature of the proposed development.	
Relevant Policies and Guidelines: – NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA) – Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) – Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006)	Section 6.8 & Appendix X
11. Biodiversity	
– Provide a Biodiversity Development Assessment Report (BDAR) that assesses the biodiversity impacts of the proposed development in accordance with the requirements of the Biodiversity Conservation Act 2016, Biodiversity Conservation Regulation 2017 and Biodiversity Assessment Method, except where a BDAR waiver has been issued in relation to the development or the development is located on biodiversity certified land.	*Section 6.16 & Appendix Z*
– Where a BDAR is not required because a BDAR waiver has been issued in relation to the development, provide: o a copy of the BDAR waiver and demonstrate that the proposed development is consistent with that covered in BDAR waiver. o an assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development.	Section 6.8 & Appendix X
– Where a BDAR is not required because the proposed development is located on biodiversity certified land: o demonstrate that the proposed development is located on biodiversity certified land and provide details of relevant order(s) conferring biodiversity certification to the land and any associated maps. o identify if the site is affected by, or the proposed development impacts upon, any relevant biodiversity measures set out in an order conferring biodiversity certification to the land and provide details of any relevant consistency reviews considered in the preparation of planning controls affecting the site. o identify if the site contains mapped existing or protected native vegetation and demonstrate that the proposed development is consistent with the provisions that apply to the mapped areas. o an assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development. Note: Further guidance is provided in the Biodiversity and Conservation Division Standard Environmental Assessment Requirements attached to the SEARs.	Section 6.8 & Appendix X
12. Contributions	

Item/ Description	Document Reference
Identify: – any Section 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 itis 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.	*Section 5.8* *Section 5.8*
13. Staging	
– Assess impacts of staging where it is proposed and detail how construction works, remediation works and operations would be managed to ensure public safety and amenity on and surrounding the site.	Section 3.8 & Appendix N
14. Utilities	
– In consultation with relevant service providers: o assess of the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. o identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. o provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be coordinated, funded and delivered to facilitate the development.	*Section 6.14 & Appendix T*
15. Stormwater Drainage	
– Provide a preliminary stormwater management plan for the development that: o is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority. o details the proposed drainage design for the site including on-site detention facilities, water quality measures and the nominated discharge point. o 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. <u>Relevant Policies and Guidelines:</u> – Guidelines for developments adjoining land managed by the Office of Environment and Heritage (OEH, 2013).	*Section 6.15 & Appendix W* *Section 6.15 & Appendix W*
16. Flooding	
– Identify any flood risk on-site in consultation with Council and having regard to the most recent flood studies for the project area and the potential effects	*Section 2.7*

Item/ Description	Document Reference
of climate change, sea level rise and an increase in rainfall intensity – Assess the impacts of the development, including any changes to flood risk onsite or off-site, and detail design solutions to mitigate flood risk where required. Relevant Policies and Guidelines: – NSW Floodplain Development Manual (DIPNR, 2005). Note: Further guidance is provided in the Biodiversity and Conservation Division Environmental Assessment Requirements attached to the SEARs.	*Section 2.7*
17. Soil and Water	
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) – Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA, 2016) – Guidelines for development adjoining land managed by the Office of Environment and Heritage (OEH, 2013). – Acid Sulfate Soil Manual (NSW Acid Sulfate Soil Management Advisory Committee, 1998). – Acid Sulfate Soils Assessment Guidelines (DoP, 2008). Note: Further guidance is provided in the Biodiversity and Conservation Division Environmental Assessment Requirements attached to the SEARs.	*Appendix O - R* *Appendix R*
18. Waste	
– Identify, quantify and classify the likely waste streams to be generated during construction and operation. – Describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. – Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site. Relevant Policies and Guidelines: – *Waste Classification Guidelines (EPA, 2014)*	*Section 6.18 & Appendix AB* *Appendix AB and Appendix AC*
19. Contamination	
– Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. This must include the following reports prepared by certified Contaminated Land Consultants recognised by the NSW Environment Protection Authority: o Preliminary Site Investigation (PSI). o Detailed Site Investigation (DSI) where recommended in the PSI. o Remediation Action Plan (RAP) where remediation is required. This must specify the proposed remediation strategy.	*Section 6.9 & Appendix S*

Item/ Description	Document Reference
○ Preliminary Long-term Environmental Management Plan (LEMP) where residual contamination is proposed to remain on-site.	
Relevant Policies and Guidelines: – Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation – of Land (DUAP, 1998) – Sampling Design Guidelines (EPA, 1995) – Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011) – National Environment Protection (Assessment of Site Contamination) Measure – (National Environment Protection Council, as amended 2013).	*Section 6.9 & Appendix S*
Plans and Documents	
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.	
In addition, the EIS must include the following:	
– A section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate)	*Appendix C*
– Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including:	*Appendix F*
○ architectural design statement ○ diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal ○ detailed site and context analysis ○ analysis of options considered to justify the proposed site planning and design approach ○ summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice ○ summary report of consultation with the community and response to any feedback provided.	*Appendix E*
– Geotechnical and Structural report	*Appendix 0 – R & Appendix U*
– Accessibility report	*Appendix U*
Consultation	
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with: – the relevant Council – Government Architect NSW (through the NSW SDRP process) – Transport for NSW.	***Section 4:*** *Consultation*
Consultation should commence as soon as practicable to agree the scope of investigation and progression of the proposed development.	***Section 4:*** *Consultation*
The EIS must describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.	

1. Introduction

1.1 Report Structure

This Environmental Impact Statement is structured as follows:

- **Section 1**: An overview of the site, proposed development, project objectives and project team;
- **Section 2**: A detailed description of the site and surrounding context, and summary of site constraints;
- **Section 3**: A detailed description of the proposed development;
- **Section 4**: A description of the consultation undertaken for the project, including the consultation process, issues raised and how the design of the development has responded to these issues;
- **Section 5**: An assessment of the proposed development against relevant strategic and statutory planning controls;
- **Section 6**: An assessment of key issues and impacts generated by the proposed development;
- **Section 7**: Risk assessment;
- **Section 8**: Recommended mitigation measures; and
- **Section 9**: Conclusion.

This EIS should be read in conjunction with the SEARs attached at **Appendix A,** and the supporting technical documents provided at **Appendices B through AC.**

1.2 Project Overview

This EIS has been prepared by Architectus on behalf of NSW Department of Education in support of SSD Application (SSD-9579147) for upgrades to Pendle Hill High School, located at 66 Binalong Road, Toongabbie.

Location

The site is within Pendle Hill High School located at 66 Binalong Road, Toongabbie. The school has a total area of 66,500 square metres and is legally described as Lot 101 in Deposited Plan 1141329.

Pendle Hill High School is currently a co-educational high school and includes the following existing buildings and facilities:

- Six (6) existing buildings comprising:
  - Building A: main administration and reception building and principal's office;
  - Building B: classrooms and workshops;
  - Building C: outdoor space, canteen, PE storeroom, student toilets, change rooms and major storage;
  - Building D: classrooms including science laboratories and staff study rooms;
  - Building E: classrooms including science laboratories and main library; and
  - Building F: multi-purpose hall, storage and toilet facilities.
- At-grade carpark providing for 67 car parking spaces accessed from Cornock Avenue; and

- Outdoor spaces comprising:
  - Three (3) soft surface outdoor play areas;
  - Three (3) hard surface games courts;
  - Quadrangle space between Buildings A, B, C, D and E; and
  - Agricultural plots.

There are four pedestrian access points to the school, including: one access point from Cornock Avenue; one access point from Knox Street; two access points from Binalong Street. There was previously one access point from Favell Street, but it is currently closed. The primary drop-off and pick-up area is located within Cornock Avenue. The school has frontage to Binalong Road.

The built form and land use character surrounding the site is predominantly established low density residential development, comprising 1-2 storey detached dwelling houses.

Pendle Hill High School is located within proximity to several other educational establishments, including St Mary Kindergarten Day Care Centre (200 m south), Darcy Road Public School (900 m southeast) and Toongabbie West Public School (300 m northeast). Photographs of the school are shown within.

Figure 1 Location of the proposal
The school boundary (in red) and location of the proposal (in yellow).
Source: Nearmap with Architectus overlay

Proposed development

NSW Department of Education propose to upgrade the existing Pendle Hill High School to increase the capacity of the school to 1,320 students to meet growth demands to 2023, an increase of 240 students over existing capacity. This objective required additional learning spaces and enlargement and enhancement of core facilities.

This EIS seeks development consent for the following works:

- Construction of a new three-storey courtyard building on Binalong Road comprising two (2) three-storey wings under a connected roof which will accommodate a library, staff unit, lecture, multimedia and senior learning, administration unit and student amenities and amenities;
- External transport infrastructure upgrade works;
- New covered walkways;
- Upgraded landscaping;
- One (1) building identification sign and one (1) community information sign (digital and LED notice board) on the Binalong Road frontage;
- Category 1 site remediation works;
- Reconfiguration of the existing at-grade car park to make compliant with current Australian Standards; and
- New hard stand areas for bicycle parking.

A detailed description of the proposed development is provided at **Section 3.1** of this EIS. Refer also to the architectural plans prepared by Fulton Trotter Architects at **Appendix E.**

Reason for the proposal

The current school facilities were reviewed by the NSW Department of Education for their capacity to meet existing programs and aspirations for delivery of a contemporary education program. The core reasons for the proposal are to improve educational outcomes by providing better quality facilities to more young people, and improving the connection of the school to the broader community.

Existing teaching and learning are impacted in the following ways:

- The domination of individual classrooms limits the scope for adjacencies required for teacher and student collaboration, interdisciplinary programs, varying learning modes and increasing student agency;
- The classrooms are arranged around a series of quadrangles that further limit scope for blending formal and informal learning spaces and for offering a mixed typology of learning settings; and
- The traditional set-ups in each room constrain efforts to develop teaching methods focused on developing capabilities alongside knowledge and skills.

Connection to the broader community is considered an important element of contemporary education. In this regard the following observations are made relating to the current facilities:

- The school has limited physical presence in the neighborhood; and
- The front of the school is not easily identifiable and navigation onto and within the site is challenging.

The proposal, including a state-of-the-arts library and lecture theatre, is an opportunity to raise the profile of the school in the local community and improve educational outcomes.

1.3 Project Objectives

NSW Department of Education propose an upgrade of the existing Pendle Hill High School to increase the capacity of the school to 1,320 students to meet growth demands to 2023, an increase of 240 students over existing capacity.

The upgrade of Pendle Hill High School is required to:

- Allow for higher quality facilities and teaching spaces as well as improved layout of buildings and efficiency of facilities;
- Increase the number of learning spaces by 14 permanent teaching spaces; and
- Provide improved street presence and improved access into the school.

1.4 Primary Drivers of Service Need

The following information is taken from the Pendle Hill High School Final Business Case. The primary drivers of the service need are:

- Population growth;
- The need to provide fit for purpose core facilities and teaching spaces to enable educational outcomes; and
- Poor asset condition.

Population growth

Pendle Hill High School is located within the Parramatta Secondary School Community Group (SCG). Based on current levels of demand, the enrolment capacity for this SCG is expected to be met sometime this year and is expected to have a capacity shortfall of nearly 3,000 students by 2036 if facilities are not expanded. Increasing demand without corresponding expansion results in overcrowding with significant impacts on the delivery of quality education provision, learning outcomes and student and staff wellbeing. Expansion of the school is required to meet population growth.

Fit for purpose learning facilities

The existing core school facilities, including Library, Staff facilities and Administration do not meet NSW Education Facility Standards and Guidelines (EFSG). The existing facilities are undersized, hard to access and in poor condition. New and enlarged core facilities will enable the school to efficiently meet its operational obligations in the provision of quality education.

The teaching spaces at the school are in the bottom quartile for the State as assessed against their adequacy for delivering the required educational outcomes. Learning spaces that are not fit for purpose do not allow the delivery of best practice pedagogies which lead to improved educational outcomes. Moreover, schools without fit for purpose learning spaces may not be able to deliver specialised courses of the NSW curriculum, limiting students' options and future opportunities.

The proposal provides expanded and upgraded teaching spaces.

Asset condition

The existing school assets are in poor condition. This impacts on the efficiency of school operations, on the reputation of the school and ultimately the performance of the school in delivering quality education. Ageing assets also require significant maintenance and remediation costs which divert funds from school operations.

Accordingly, the unsuitability and condition of learning spaces and core facilities, as well as projected capacity constraints, are the key motivators driving the need for upgrades at the school.

1.5 Project Team

The project team is set out in **Table 2** below.

Table 2 Project team

Discipline	Consultant
Applicant	NSW Department of Education
Quantity Surveyor	Wilde & Woollard
Surveyor	Clement and Reid
Architect	Fulton Trotter Architects
Landscape Architect	Ground Ink
Urban Planner	Architectus Australia Pty Ltd (Architectus)
Aboriginal Cultural Heritage Consultant	Tocomwall
Traffic Consultant	TTW
Construction Management Consultant	TSA
Geotechnical Engineer	Douglas and Partners
Arboricultural Consultant	McArdle Arboricultural Consultancy
Social Impact Consultant	Elton Consulting
Civil Engineer	Aurecon
Ecological Consultant	Kleinfelder
Accessibility Consultant	iAccess
Stormwater Consultant	Aurecon
Structural Engineer	Aurecon
Acoustic Consultant	Aurecon
Lighting Consultant	Aurecon
Operational Waste Management Consultant	EcCell
Construction Waste Management Consultant	Taylors
Contamination Consultant	Douglas Partners
Consultation	School Infrastructure

1.6 Estimated Capital Investment Value (CIV)

The estimated Capital Investment Value (CIV) for the proposed development exceeds $20 million. A detailed CIV Report is provided under separate cover.

1.7 Related Planning Applications

Development Applications

A review of Department of Planning, Industry and Environment, City of Parramatta Council (Council) and NSW Department of Education records indicates there are no recent DAs on the subject site which are relevant to the proposal. Further, a review of surrounding properties does not indicate any development applications which are relevant to the proposed development.

Other Relevant Approvals

School Infrastructure NSW is separately seeking approval for minor works at the site, including the internal refurbishment of part of existing school Buildings C and E as well as the erection of demountable buildings to provide decanting of operations, along with associated services adjustments. These works have will be subject to a Complying Development Certificate (CDC), pursuant to Part 4 of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017. These works are separate to the SSDA and were vital to allow for the continuous provision of essential education services offered at the site.

Anticipated Future Development

As detailed at **Section 3** of this report, the proposed development seeks to increase student capacity from 1,080 to 1,320 students. Notwithstanding, to account for population increases within the school catchment, it is anticipated that Pendle Hill High School will need to be expanded further at some point in the future, in line with enrolment demands on both the existing school and other schools within the catchment.

Accordingly, some site infrastructure has been designed to cater for the potential future expansion of the school to accommodate a maximum student capacity of 2,040 students.

For clarity, this application only seeks approval for facilities to cater for a maximum capacity of 1,320 students as detailed at **Section 3** of this report. The masterplan (including future stages of development) is further discussed in **Section 1.8**.

1.8 Analysis of Feasible Alternatives

A masterplan for the proposed upgrade of Pendle Hill High School has been prepared to inform future Secondary School Community Group planning, with three options being considered before a preferred option was selected and further refined. The proposed development is based on this preferred option. It is important to note however that this is a preferred option based upon current projections and future development will be subject to actual growth and demand forecasting that may change this masterplan.

Stage 2 Master Plan

The masterplan for the school was set out in two stages.

- Stage 1 related to the building that would create the Binalong Road address to the school and main entrance. This SSDA relates to this stage of the masterplan.
- Stage 2 (future development) options proposed additional buildings on Binalong Road in some cases, while other options proposed a building next to existing Building G.

Some options also provided an additional building for learning spaces for specialist and generalist learning (located next to Building F), as well as upgrades to access and car parking at the site.

Stage 2 of the masterplan would bring the capacity of the school to 2,040 students. At present there is no Government commitment to Stage 2 as it is subject to a future Government business case and funding. Works indicated for this stage do not form part of the subject application and are included for reference purposes only.

Key development principles

The options testing explored various building forms and configurations across the school, maintaining the following key principles of the development:

- The need for a strong identity and presence at the site address on Binalong Road to improve the school's connection to its community;
- The need to make the site more accessible to the school community through transport improvements, built form and landscaping connections to Binalong Road; and
- The need to maximize green space on the site for student play and school community amenity.

Overview of options

An overview of each of the options explored under the Stage 1 and 2 master plans is provided below:

Table 3 Overview of master plan options
Master plan prepared by Architectus

Option	Description
Option 1	Stage 1: A 2-storey building to Binalong Road on existing open play space. New pedestrian axis from quadrangle to Binalong Road. Future stages: A 1-storey building and 3-storey building to Binalong Road and 4-storey building more centrally within the site. Significant landscape improvements centrally within site. New pedestrian link from Cornock Avenue through to Binalong Road. Expanded at-grade carpark with access to Knox Street. This option was not selected as it would require removal of mature vegetation on Binalong Road and a cul-de-sac in the car park also produced poorer traffic outcomes.

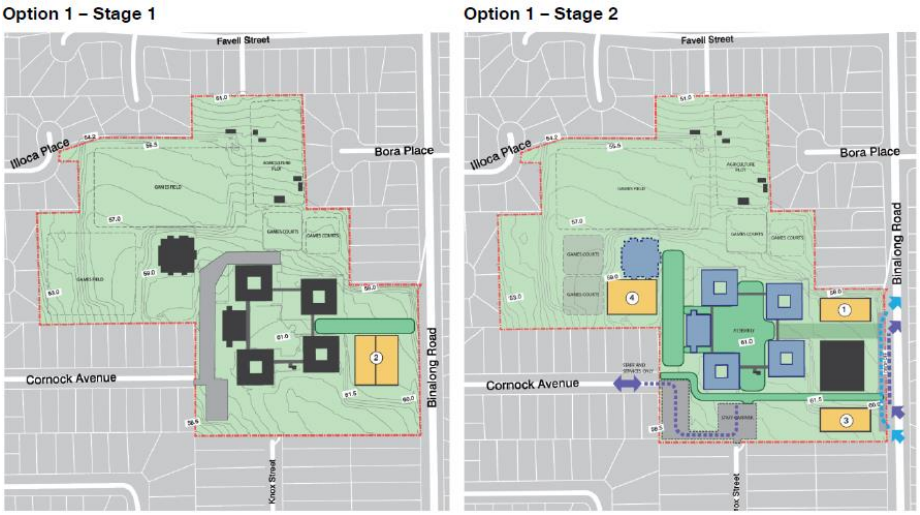


Figure 2 Option 1
Source: Architectus

Option 2	Stage 1: A 1-storey building and a 2-storey building to Binalong Road. New pedestrian axis from quadrangle to Binalong Road. Landscape upgrades to central quadrangle. Future stages: A 3-storey building and 4-storey building to the southern boundary and a 5-storey building centrally within site. New pedestrian link from Cornock Avenue through to Binalong Road. Expanded at-grade carpark with access to Knox Street. This option was not selected as it provided a poorer address on Binalong Road. The pedestrian link from Binalong Road was between buildings which was consider a weaker address than the proposed central atrium being the main pedestrian connection. Having the main pedestrian access via the atrium and passing through the administration office was also seen as a better security outcome as it served as an informal 'checkpoint' for people entering the school. This option (Stage 1) also impacted on greater play space than the preferred option.

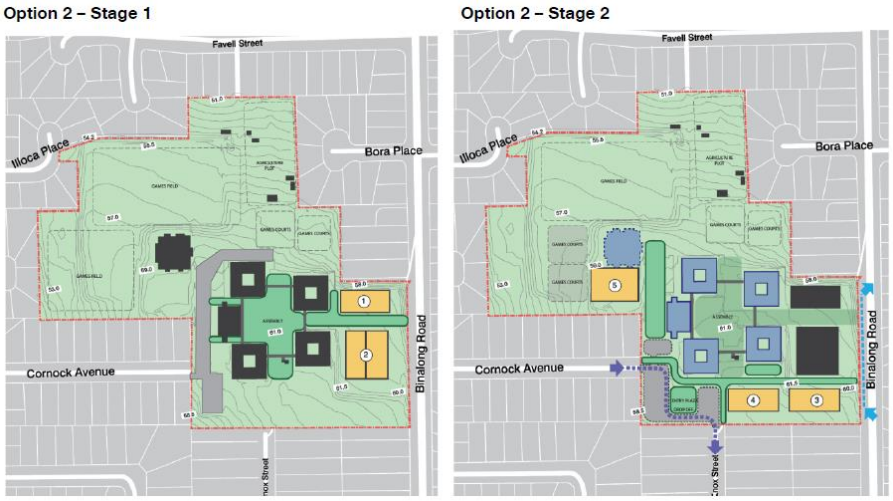
Option	Description
	

Figure 3 Option 2
Source: Architectus

Option 3	Stage 1: A 2-storey building, a 3-storey building and a 4-storey building to Binalong Road. New pedestrian axis from quadrangle to Binalong Road. Creation of new assembly area between new buildings. Future stages: 1-storey building within existing quadrangle and 5-storey building centrally within the site. Expanded at-grade carpark with access to Knox Street. This option was not selected as it was not supportive of the courtyard structure of the existing site and resulted in the placement of a proposed building in the existing central courtyard which would be too disruptive to the existing pedestrian movements and removed a key social space.

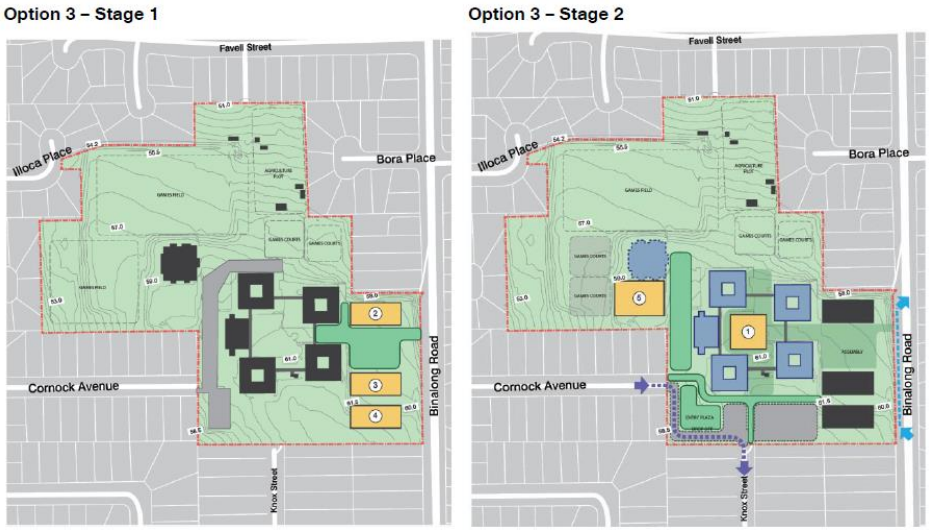


Figure 4 Option 3
Source: Architectus

Option 4	Stage 1: A 3-storey building comprising 2-wings and central courtyard connecting through to existing courtyard buildings and assembly area / quadrangle. Future stages:

Option	Description
	A 2-storey building comprising 2-wings to southern boundary, 2-storey building to north of existing courtyard buildings, 2-storey building west of site. Reconfigured staff carpark. New pedestrian connection from Cornock Avenue through to Binalong Road. Option 4 was selected as the preferred option as it addressed the greatest number of objectives of the NSW Department of Education. It has high potential to meet future student number requirements. The preferred option achieves the following outcomes: – Improves the street presence and provides an address to Binalong Road and connection of the school with its community; – Improves connectivity and legibility between buildings within the grounds; – improves community engagement and connectivity; – responds well to the existing courtyard planning on the site – the Stage 1 building connects well into the existing central courtyard on the sites and is a contemporary architectural interpretation of the courtyard building. – retains an element of landscaping and play space to the Binalong Road streetscape; – supports the development of learning neighbourhoods around the school. **This is the preferred masterplan and the part for which approval is sought under this SSDA is shown in yellow.**

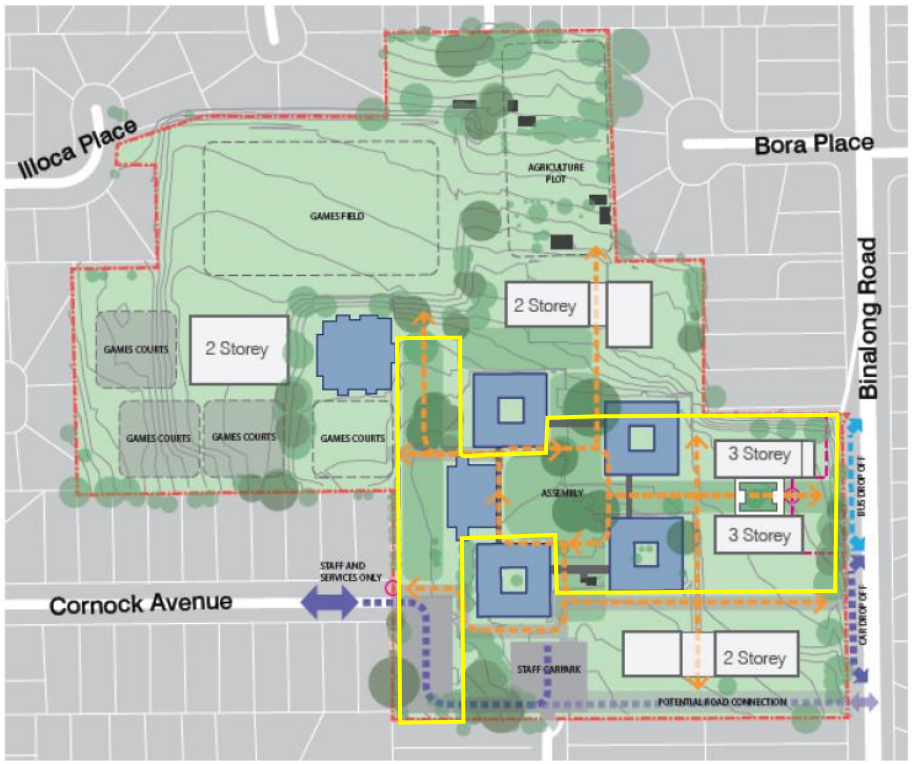


Figure 5 Option 4
Source: Architectus

1.9 Consequences of not carrying out the development

The consequences of not carrying out the development is a reiteration of the primary drivers of service need for the project, referred at **Section 1.3** above and include:

- The capacity of the Secondary School Community Group is projected to be met sometime this year. By not carrying out the development, this may lead to overcrowding in classrooms across the catchment.
- The existing facilities are undersized, hard to access or disparate when assessed against the Educational Facilities School Guidelines (EFSG). The proposed improvements to core facilities (a new library, school hall, larger canteen and relocation of the administration space) will improve the standard. The failed delivery of the development would result in existing and future students being in poor learning environments, due to lack of future proof planning.
- The standard of permanent teaching facilities is below the state average. The proposal would improve the standard of facilities overall.
- Other options for addressing for the future demand within the School Community Group have been explored, such as catchment boundary changes, to redistribute student capacity with student demand, however the ability of these measures to relieve demand pressures is limited and has been exhausted.

  Without new facilities being developed the required capacity will not be available and the school will have to resort to using demountable buildings to accommodate new students. Demountable buildings are a poor amenity outcome compared to permanent facilities and result in greater impacts to play space.

To summarise, the consequence of not undergoing the upgrade to the school will be poorer learning outcomes caused by overcrowding of the school, insufficient number of learning spaces, and greater impacts on play space.

2. Site Analysis

2.1 Location Context

Site address

Pendle Hill High School is located at 66 Binalong Road, Toongabbie. The site is legally described as Lot 101 in Deposited Plan 1141329.

Note the site address is also sometimes referred to as Cornock Avenue, Toongabbie (as identified in the request for SEARs). This is due to vehicular access to the school from this location. However, for the avoidance of doubt, the registered address of the school is 66 Binalong Road. Further, this Binalong Road address is considered to better reflect what will be the true address of the school once the upgrade has been completed.

The school is located in the Parramatta Local Government Area (LGA) in the suburb of Toongabbie. It is situated within a well-established residential area approximately 5km west of Parramatta CBD.

The school is surrounded by low density residential development, with Binalong Road forming the primary eastern boundary, and site boundaries interfacing with Cornock Avenue and Illoca Place to the west, and Knox Street to the south.

Refer to the local context plan at **Figure 6** Local context

below, and the school context plan at **Figure 1** in **Section 1.1**.

Figure 6 Local context
Location of the proposal (in yellow) within the school site boundary (in red).
Source: Nearmap with Architectus overlay

Surrounding built form and land use

The surrounding built form and land use character is predominantly established low density residential development, comprising detached dwelling houses approximately 1-2 storeys in height.

Pendle Hill High School is located within proximity to several other educational establishments, St Mary Kindergarten Day Care Centre (200 m south), Darcy Road Public School (900 m southeast) and Toongabbie West Public School (300 m northeast). Photographs of the school are shown in **Figures 7 to 13** below.

Figure 7 Vehicle access from Cornock Avenue
Source: Google Maps (2020)

Figure 8 Pedestrian access at Knox Street
Source: Google Maps (2020)

Figure 9 Bus stop on Binalong Road
Source: Google Maps (2020)

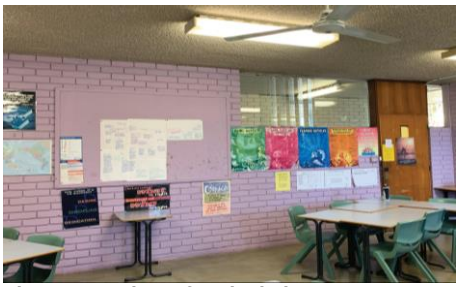


Figure 10 View of typical classroom
Source: Architectus (2020)

Figure 11 Internal view of playground
Source: Architectus (2020)

Figure 12 View of school from the south-east
Source: Architectus (2020)

Figure 13 View of school from Illoca Place
Source: Fulton Trotter Architects (2021)

Legal description

The school site is legally described as Lot 101 in Deposited Plan 1141329.

Ownership

Pendle Hill High School is owned in its entirety by NSW Department of Education.

2.2 Existing Development

Pendle Hill High School is currently a co-educational high school and includes the following existing buildings and facilities:

- Six (6) existing buildings comprising:
  - Building A: main administration and reception building and principal's office;
  - Building B: classrooms and workshops;
  - Building C: outdoor space, canteen, PE storeroom, student toilets, change rooms and major storage;
  - Building D: classrooms including science laboratories and staff study rooms;
  - Building E: classrooms including science laboratories and main library; and
  - Building F: multi-purpose hall, storage and toilet facilities.
- At-grade carpark providing for 67 staff car parking spaces accessed from Cornock Avenue; and
- Outdoor spaces comprising:
  - Three (3) soft surface outdoor play areas;
  - Three (3) hard surface games courts;
  - Quadrangle space between Buildings A, B, C, D and E; and
  - Agricultural plots.

There are four (4) existing pedestrian access points to the school, including:

- One access point from Cornock Avenue;
- One access point from Knox Street; and
- Two access points from Binalong Street.

The primary drop-off and pick-up area is on Cornock Avenue.

2.3 Site Constraints

The existing Pendle Hill High School presents the following key site constraints:

- Lack of street presence: There are four possible pedestrian entrance points however there is no legible main entrance into the school at present;
- Building location & functionality: Existing buildings are located in close proximity to each other and do not have a functional layout;
- Building condition & capacity: Existing facilities are undersized and are in poor condition. The current number of teaching spaces will not sustain future enrolment growth and limited teaching spaces at the school inhibits opportunities for student learning;
- Proximity to surrounding residential dwellings: The site borders residential dwellings to the south, north and west; and
- Presence of significant trees on site: The site has mature and dense trees along its boundaries and within the site. Some of these trees are of high retention

significance and have large structural root zones, causing limitations to the proximity for future buildings and expansion of existing buildings.

These site constraints have been taken into consideration in the design of the proposed development as detailed at **Section 3** of this report.

2.4 Heritage

There are no heritage impacts arising from the proposed works. The site is not identified as, nor within proximity to, local or state (or draft) heritage items. The site is not located within, nor within proximity to, any heritage conservation areas.

No known Aboriginal archaeological sites or objects, or Aboriginal places of significance are located within the site boundary. An Aboriginal Cultural Heritage Assessment was completed and is attached at **Appendix M**.

2.5 Topography

The existing built form is located towards the centre of the site, which is also the highest point.

Levels across the site fall to the southeast. Therefore, the proposal will incorporate steps and ramping elements to traverse the level change, in particular for access from Binalong Road into the new buildings, where there is a 4 m level change. Typical elevation across the site range from 55m AHD (in the northeast corner) to 61.5m AHD where Building A is located. Refer to the site survey at **Appendix B** and extract of the Landscape Design report provided below.

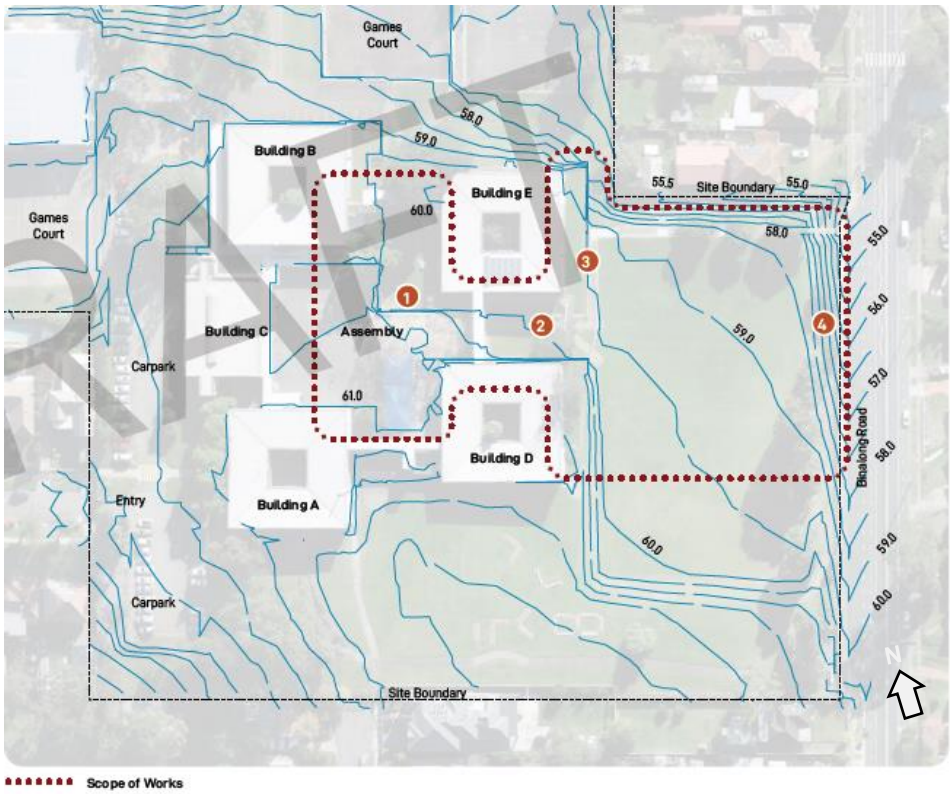


Figure 14 Site plan showing topography
Source: Landscape Design report prepared by Ground Ink prepared 10 March 2021.

2.6 Vegetation

Within the school property there are 183 established trees located predominantly in the northern portion of the site, as well as clustered along the north-south central spine of the site, and around Building F and the quadrangle. Vegetation includes critically endangered Cumberland Shale Plains Woodland located in the southwest corner of the site near the carpark. Refer to the Arborist Report prepared by McArdle Arboricultural Consultancy, at **Appendix I**.

The Section 10.7(2) & (5) Planning Certificate for the site provides, “The Environment Agency Head with responsibility for the Biodiversity Conservation Act 2016 has not advised Council that the land includes or comprises an area of outstanding biodiversity value.”

Figure 15 Nature of the vegetation found on the school site
Image taken near the northern boundary
Source: McArdle Arboricultural Consultancy, March 2021

2.7 Flooding and drainage

The Section 10.7(5) Planning Certificate for the site (**Appendix C**) identifies that it is within an area known to have drainage issues however the site is not located within a flood zone. This has been taken into consideration by the hydraulic engineer in the design of the proposed redevelopment and it discussed further in Section 6 of this report.

2.8 Bushfire

The subject site is not identified as within or near to any bushfire prone land.

2.9 Services

The school is connected to all necessary services including water, gas, electricity, communications and sewage.

2.10 Access and Car Parking

Pendle Hill High School has a frontage to Binalong Road, however the current main vehicular access onto the school property is via Cornock Avenue, where the staff parking and student pick-up and drop-off is located.

The primary pick-up and drop-off location is the Cornock Avenue car park however pick-up and drop-off also occurs informally on Cornock Avenue, Knox Street and Binalong Road.

The onsite at-grade car parking for staff currently accommodates 67 vehicles, with a median mid-week availability of 21 spaces. In addition to this the surrounding residential streets all have unrestricted parking.

There are four pedestrian access points, including one on each of Cornock Avenue and Knox Street, as well as two points along Binalong Road. However, as noted within the site constraints at **Section 2.3**, the school does not have a clear main school pedestrian entry point. This has been a key driver in the design of the proposed redevelopment to improve the presence and visual presentation of the school when viewed from Binalong Road.

2.11 Public Transport

Bus

The site is most easily accessible via bus, with five school bus routes that directly connect to the site via the bus bay located along Binalong Road. However, the school has noted these school bus services are less reliable and occasionally fail to deviate to stop at the school. As a result, most students prefer taking the public bus services. At present, approximately twenty percent of students are arriving by bus. The table below summarizes the current bus services.

Table 4 Overview of current bus services

Route	Service type	Morning services	Afternoon services
2031	School	8:18am at Binalong Road bus stop	None
2046	Public	7:53 am at Binalong Road bus stop	None
2506	School	None	3:10pm at Binalong Road bus stop
2570	School	None	3:10pm at Binalong Road bus stop
2623	School	None	3:14pm at Binalong Road bus stop
708	Public	9:10am at Bungaree Rd bus stop	2:38pm at Bungaree Rd bus stop
711	Public	8:04am and 8:13am Bungaree Rd bus stop	– 3:16pm, 3:18pm and 3:42pm at Bungaree Rd bus stop – 3:21pm at Binalong Road bus stop

Train

The two nearest train stations to the school are Pendle Hill and Toongabbie stations located approximately a 15 to 20-minute walk away. At present, approximately six percent of students are currently arriving by train, likely due to the distance between the school and the stations.

2.12 Active Transport

Walking

Formal pedestrian connections to the school are discontinuous. Notably the western side of Knox Street is missing a footpath, despite this it is still a popular pedestrian route into the school. Pedestrian access across roads is mainly with at-grade zebra crossing provided to the east and west of the site along Binalong and Bungaree roads respectively.

Cycling

There is some cycling infrastructure in proximity to the site however the majority is on-road. Dedicated cycling infrastructure is located on Toongabbie Road and near Westmead Hospital however cycling to the school would require the last kilometre to be via on-road infrastructure along Binalong Road, Bulli Road or Bungaree Road then along Kim Place or Cornock Avenue which do not currently have cycling infrastructure.

Cycling currently does not contribute to any of the mode share, however the proposed facility will accommodate an increase in cycling mode share to approximately 10%. The proposed arrangement is discussed further in Section 6.6 of this report.

2.13 Play space / open space

There are currently six game courts and a sports field on the school site, shown on the plan in **Figure 16** below. In addition, there are a number of open space areas used for lunch and recess play.

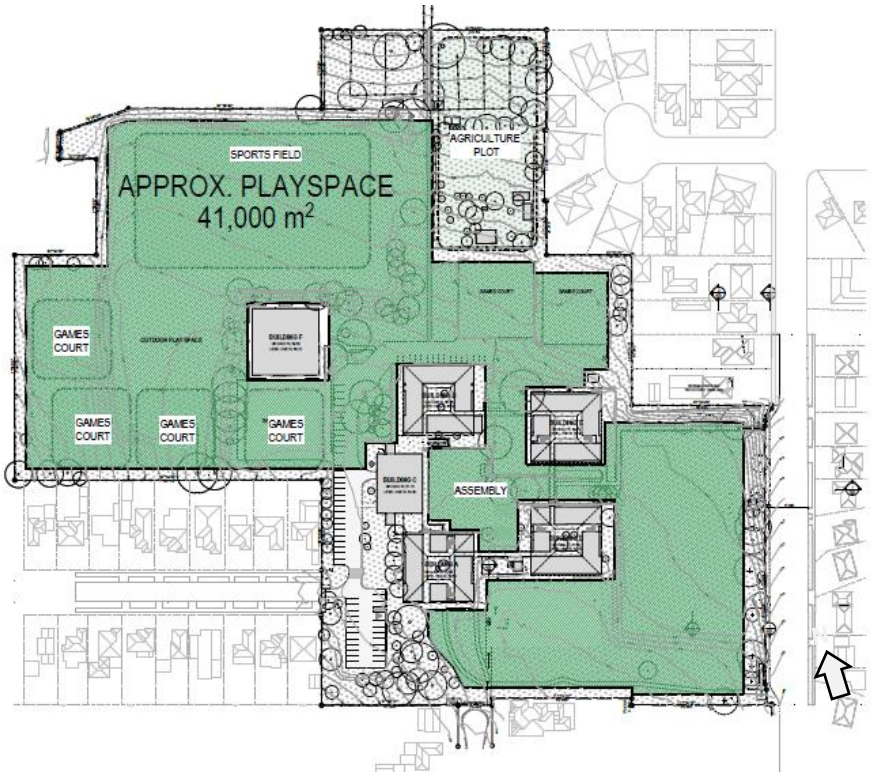


Figure 16 Current play space, games courts and sports field at the school
Source: Fulton Trotter Architects.

3. The Proposed Development

3.1 Summary of Development

The proposed development includes:

- Construction of a new three-storey courtyard building on Binalong Road comprising two (2) three-storey wings under a connected roof which will accommodate a library, staff unit, lecture, multimedia and senior learning, administration unit and student amenities and amenities;
- External transport infrastructure upgrade works;
- New covered walkways and upgraded landscaping;
- One (1) building identification sign and one (1) community information sign (digital and LED notice board) on the Binalong Road frontage;
- Category 1 site remediation works;
- Reconfiguration of the existing at-grade car park to make compliant with current Australian Standards; and
- New hard stand areas for bicycle parking.

The new facilities will deliver additional learning areas to cater for increased Secondary School enrolments, respond to existing capacity pressures and provide improved facilities.

3.2 Construction of New Building H

A new building is proposed (Building H), comprising two wings under a connected roof to the Binalong Road frontage in the north-east corner of the school, as described in **Section 3.1**.

Refer to an overview of the site plan, photomontages and elevations of the proposed Building H, at **Figures 17 - 21** below.

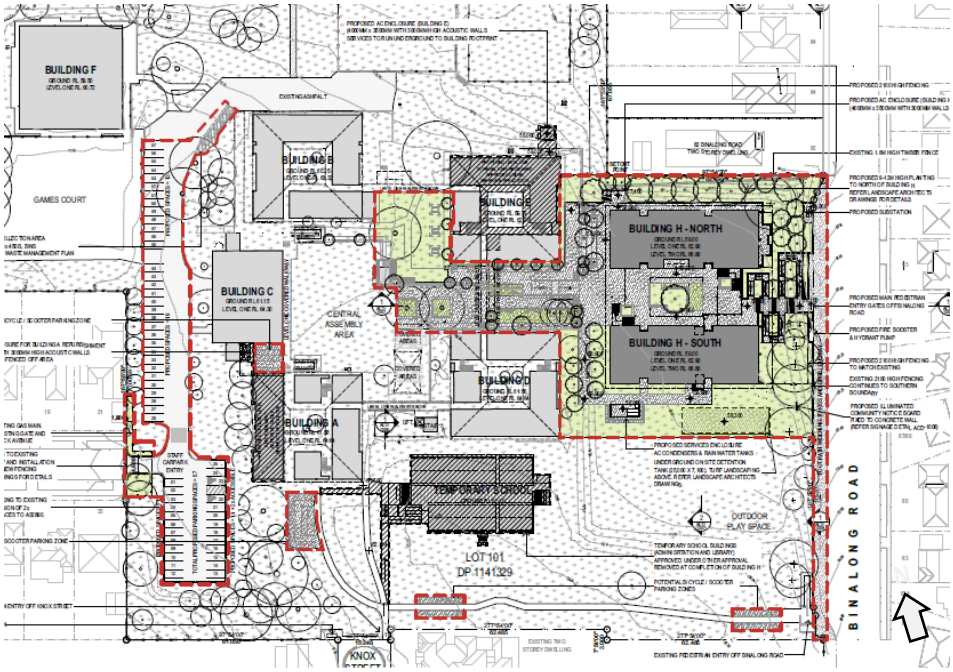


Figure 17 Extract of site plan with the location of the proposed works
Source: Fulton Trotter Architects.

Figure 18 Artist's impression of the new building from Binalong Road
Source: Architectural design report prepared by Fulton Trotter Architects dated 10 March 2021.

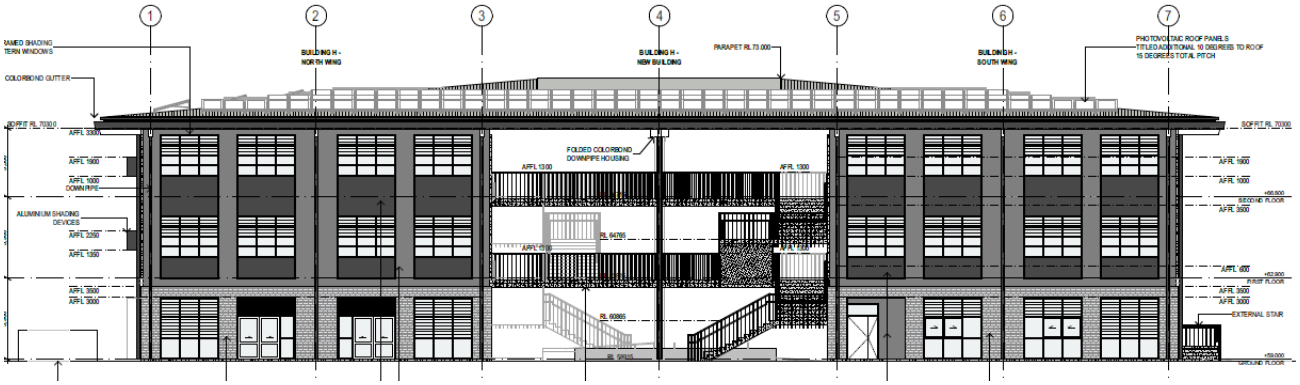


Figure 19 Eastern Elevation (Binalong Road)
Source: Architectural plans prepared by Fulton Trotter Architects, March 2021.

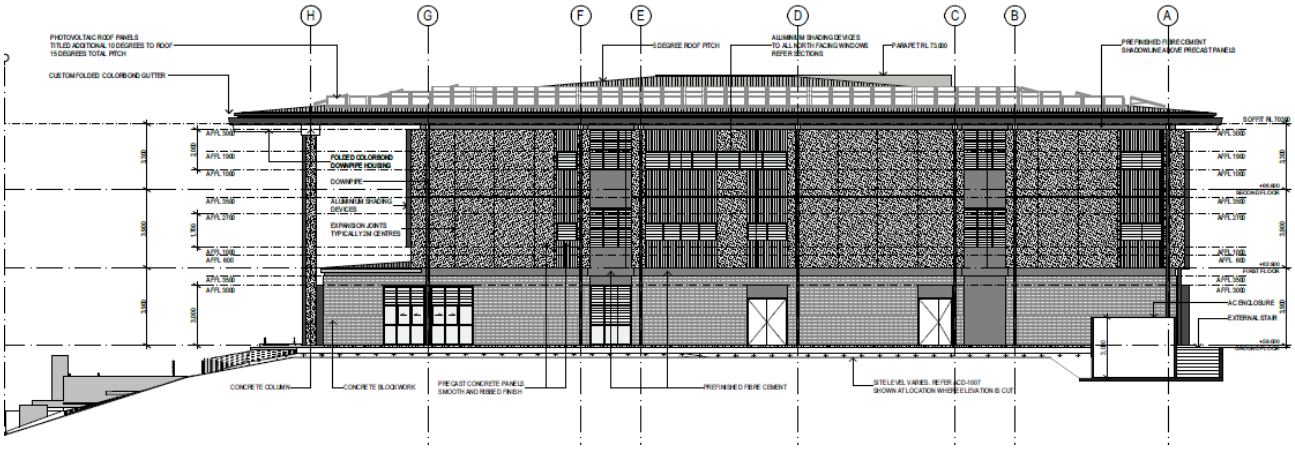


Figure 20 Northern Elevation
Source: Architectural plans prepared by Fulton Trotter Architects, March 2021.

Figure 21 Perspective of the new building from Binalong Road
Source: Architectural plans prepared by Fulton Trotter Architects, March 2021.

3.3 Design Principles

The following design principles have informed the design of the proposed development:

- Site new school building to Binalong Street to provide clear pedestrian entry to school, improve street presence and connection to the community. The new entry connects directly from Binalong Street into a generous central stair and internal courtyard / atrium that connects directly through to existing courtyard buildings and assembly area/quadrangle;
- Respond to existing courtyard architecture on site with contemporary interpretation of this building form;
- Relocation of the administrative services towards the ground floor of the new building for security purposes and connection to community;
- Maximise outdoor play and learning areas and integrate the built and landscaped environment;
- Consider effects of sunlight and shade to buildings and open spaces and their functionality;
- Meaningfully represent connection with country within the school; and
- Create a place for students to gather in the heart of the building (central courtyard).

A strategy has been developed for how Connection to Country could be represented within the new building and public domain areas. It is proposed to incorporate the following elements:

- A yarning circle;
- A mural or interpretative signage about the country upon which the school stands; and/or
- Incorporation of significant indigenous planting species and bush medicine species into the landscape.

The strategy will also highlight how continuous aboriginal engagement and input can be provided throughout the project. The strategy will continue to be developed in consultation with local aboriginal land councils and representatives from the local aboriginal community. The consultation will be led by aboriginal heritage consultancy, Tocomwall. For further detail refer to the Architectural Design Statement at **Appendix F**.

3.4 Building Height and Bulk

The proposed maximum height for the new buildings is 14 metres (3-storeys) to the top of the roof ridge. The proposed height strategy for the site has been established with the residential homes surrounding the site in mind, which are predominantly 1-2 storeys in height, with two storey residential built form immediately abutting the northern site boundary. In keeping with the surrounding land uses and the zoning of the school site (R2 Low Density residential) the Parramatta LEP applies a maximum height of the site of 9 metres (approximately 2-storeys).

The *Education SEPP* does not require schools to comply with the height of buildings control established by an LEP. Notwithstanding, an assessment of the proposal was completed against the planning principle for assessment of height and bulk set by *Veloshin v Randwick Council [2007] NSWLEC 428.*

Planning principle: Assessment of height and bulk

Question	Response
Are the impacts consistent with impacts that may be reasonably expected under the controls? (For complying proposals this question relates to whether the massing has been distributed so as to reduce impacts, rather than to increase them)	The building height and bulk does not comply with the PLEP control however it is a complying scheme due to Clause 42 of the Education SEPP. Notwithstanding the non-compliance in the heights the building has been designed so as when viewed from Binalong Road there is a subtle transition in building heights from the roof of existing built form (Building D at RL 70.11), to the parapet (RL 70.65) and the roof ridge (RL 73.0) and the proposed Building H (See Figure 22).

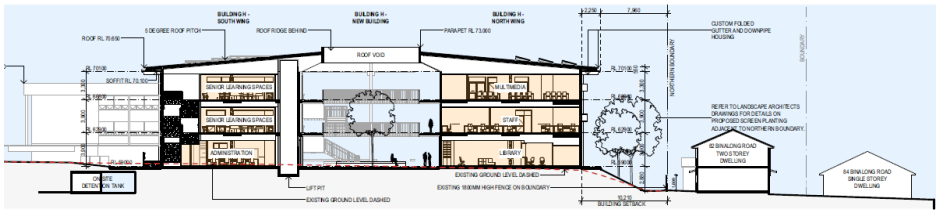


Figure 22 Relationship of proposed building with surrounding context

Source: Fulton Trotter Architects.

How does the proposal's height and bulk relate to the height and bulk desired under the relevant controls?	The school is located within an area zoned low density residential in the PLEP. The proposal's height and bulk exceed that required under the control in the PLEP. The 9-metre height control is applied to a low-density residential zoning and therefore could be considered more reflective of the desired bulk of future residential development.
Does the area have a predominant existing character and are the planning controls likely to maintain it?	The existing character being low density surburban will be maintained notwithstanding the upgrade to the school. It is not considered compliance with a 2-storey height limit for new development on the school site would not make a significant difference in this regard.
Does the proposal fit into the existing character of the area?	The school is situated in a low-density residential area where the adjoining properties are all 1-2 storeys detached homes. In this respect the land use character of the school differs to the land uses surrounding. However the school has existed at this location since 1965 and so in this respect the proposed augmentation of the educational land use does not represent a significant change in the prevailing character of the area.

The school site is elevated from Binalong Road and as a result between the north wing of the building (adjoining 82 Binalong Road) there is a one-storey height difference that translates to approximately 8-metres height difference. The impacts to these homes have been carefully considered. The privacy and views to/from these residential homes has been discussed and assessed in **Section 6.5** of this report.

In relation to existing building form, the current school buildings are 2-storeys tall. While the proposed building form is 3 storeys tall it is set at a lower ground level on the site than both of the adjacent buildings – Building D and Building E. As a result, the RL change between the proposed building and the perceived highest building on the site (Building D) is 2.9 metres.

Figure 23 Northern View of Building E and Proposed Building
Source: Architectural Design Report, Fulton Trotter Architects

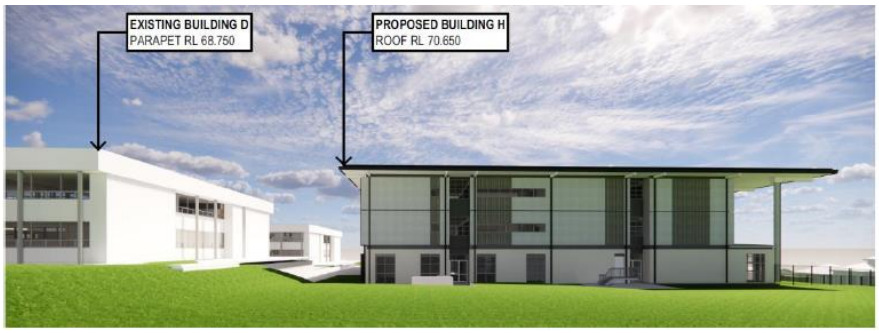


Figure 24 Southern View of Connection between Building D and Proposed Building
Source: Architectural Design Report, Fulton Trotter Architects

Refer to section plans prepared by Fulton Trotter Architects at **Appendix E** which demonstrate the relationship of the proposed development with surrounding built form.

3.5 Building Setbacks and Separation

The building is set back 15.85 metres from Binalong Road, and 10.21 metres from the site's northern boundary. There are no setback requirements for the site however these distances will assist to provide privacy to the nearby residential properties and are sufficient to allow for intervening tree canopy and screening vegetation between the proposed building and existing two-storey dwelling to the north of site (82 Binalong Road).

3.6 External Materials and Finishes

The external materials and finishes of the proposed building are chosen to integrate with the existing buildings at the school. The proposal references the existing buildings by using pre-cast concrete panels as blades to the northern and southern facades of each wing, as well as lighter-coloured masonry to the base of the building, being durable whilst providing visual interest. The intent is to strike a balance between referencing the historical built form and adapting it to create a contemporary aesthetic.

Aluminum sunshades are provided to the windows to block out the hot summer sun and allow winter sun to penetrate the building to provide passive heating.

Minimal use of applied finishes has been sought where possible to make the building durable and reduce the need for regular maintenance. Samples of the materials to be used in the new building are provided below.

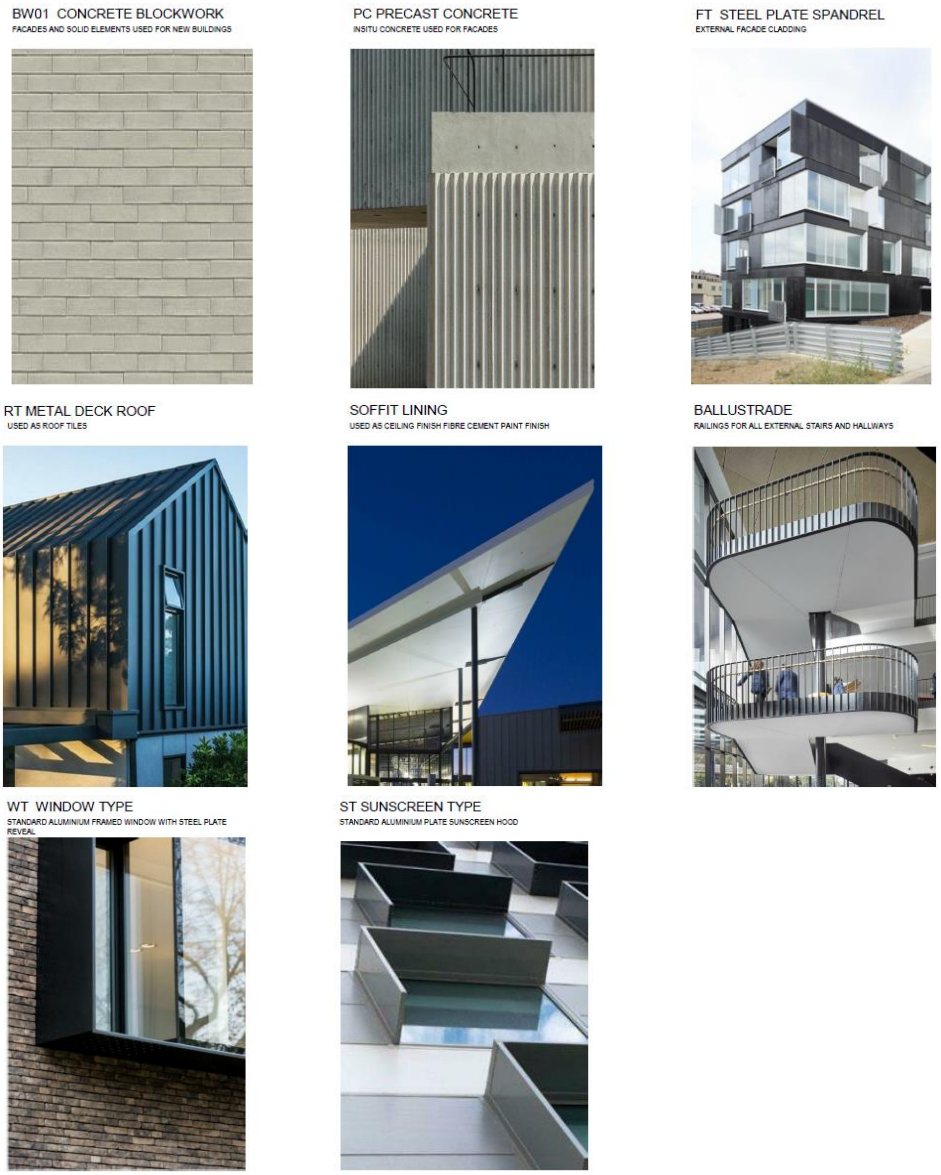


Figure 25 Building H Material swatches
Source: Fulton Trotter Architects.

3.7 Numerical Overview

The key numerical information for the proposed development is summarised in **Table 5** below.

Table 5 Numerical overview

Component	Existing	Proposal
School site area	66,411 m^2	66,411 m^2
Development site area	7,451 m^2	7,451 m^2
Gross floor area (GFA)	6,670 m^2 (Buildings A-F)	3,433 m^2 (Building H)
Floor Space Ratio	0.10:1	0.15:1
Maximum building height	8.2 m (Building F)	14 m (3 storeys)
Play areas	39,500m^2 (37m^2 per student)	37,325m^2 (28.2m^2 per student)
Open space (including play areas)	62,260m^2	60,860 m^2
Trees in the school	183 trees	232 trees (remove 5 trees; plant 54 trees)
Tree canopy cover (development site only)	12.6%	24.9%
Parking	67	57 (reconfigure car park to meet Australian Standard)
Staff capacity	84	102 (+18)
Student capacity	1,080	1,320 students (+240)
Jobs - construction	-	44 jobs

3.8 Construction Staging

The project will be constructed in one stage, anticipated to commence late 2021. The indicative duration of construction will be one year.

3.9 Demolition

No demolition of any structures is sought under this application.

3.10 Tree Removal and Planting

A total of five trees are proposed to be removed to accommodate the development. An additional 54 trees will be planted in species belonging to the Cumberland Shale Plains Woodland ecological community. The final planting schedule is subject to ongoing consultation with the Aboriginal community on how to reflect the Connection to Country in the development, and as such the final planting schedule would be confirmed subsequent to the proposal being approved.

As identified in the Arboricultural Impact Assessment Report by McArdle Arboricultural Consultancy at **Appendix I**, out of the trees proposed to be removed, none have high landscape significance, whilst four (4) are assessed as having moderate landscape significance. All five trees directly conflict with the proposed building construction footprint and therefore need to be removed. None of the trees belonging to the critically endangered Cumberland Shale Plains Woodland are impacted by the proposal.

Figure 26 below provides an overview of the existing trees and those that are proposed to be removed. Details on affected trees are provided in **Table 6**.

Figure 26 Overview of trees
Site plan showing the trees in the school site (in green) including those being removed as part of the application (in red).
Source: Ground Ink Landscape Architects

Table 6 Proposed tree removal
Source: Arboricultural Impact Assessment Report, prepared by Birds Tree Consultancy

Tree number	Tree Name	Common Name	Tree Location	Landscape Significance	Reason for removal
137	*Jacaranda mimosifolia*	*Blue Jacaranda*	North of new Building H	Moderate	The tree is within the construction footprint of the proposed building.
138	*Jacaranda mimosifolia*	*Blue Jacaranda*	North of new Building H	Moderate	The tree is within the construction footprint of the proposed building.
139	*Jacaranda mimosifolia*	*Blue Jacaranda*	North of new Building H	Moderate	The tree is within the construction footprint of the proposed building.
140	*Callistemon viminalis*	*Weeping Bottlebrush*	East of new Building H	Moderate	The tree is within the construction footprint of the proposed building.
141	*Callistemon viminalis*	*Weeping Bottlebrush*	East of new Building H	Low-Moderate	The tree is within the construction footprint of the proposed building.

Further discussion of tree removal and ecological impacts is provided at **Section 6** of this report. Refer also to the Arboricultural Impact Assessment prepared by McArdle Arboricultural Consultants at **Appendix I**.

3.11 Landscaping and Open Space

Ground Ink have prepared Landscape Plans and a Landscape Design Report (**Appendices G and H**). A key focus throughout the options development process has been using landscape to strengthen the link between the existing built form and the new buildings. The objectives of the landscape concept plan are to:

- Create a visually cohesive and connected school campus;
- Create a clear entrance place and street presence along Binalong Road;
- Provide visual relief between the school and existing residential homes;
- Provide opportunities for passive cooling and heating;
- Improve amenity and opportunities to dwell through shade/canopy; and
- Represent and acknowledge the local indigenous culture.

Based on these design objectives, a series of open spaces are proposed for the site including:

- Binalong Road Main Entry;
- A central atrium between the two wings of the new Building H;
- A central axis walkway between Building D and E;
- A central walkway linking the Assembly area and the central axis walkway and
- An open assembly area between Buildings A, B, D and E.

These four spaces create a continuous pedestrian connection between the Binalong Road entrance and the existing buildings on campus.

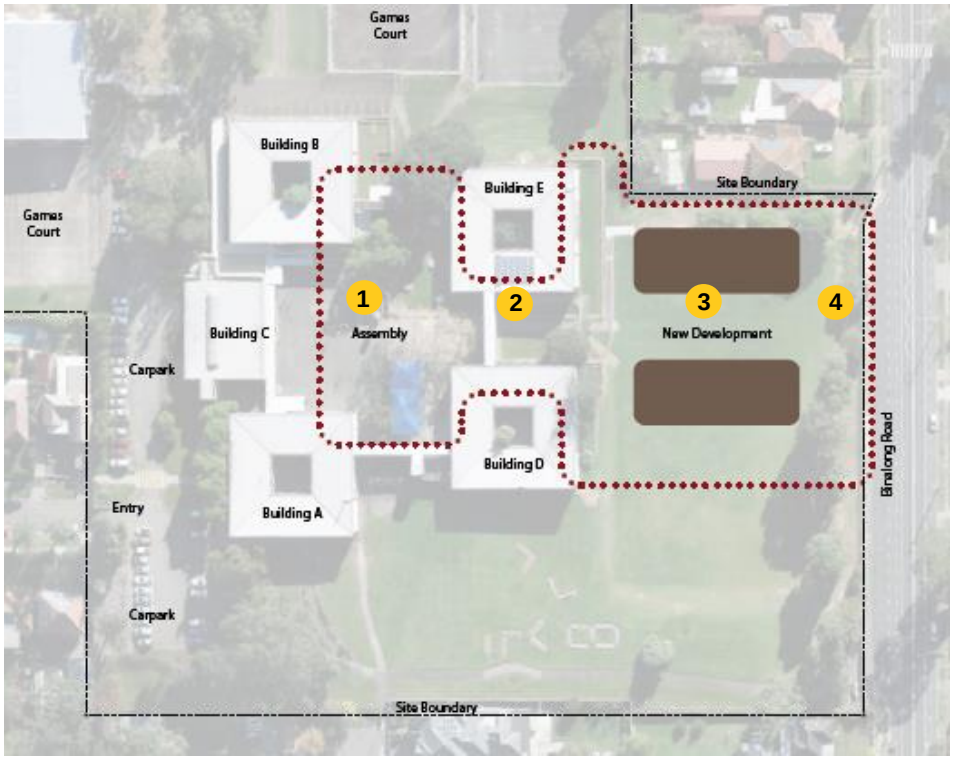


Figure 27 Landscape masterplan open space areas
Source: Gound Ink Landscape Architects with Architectus overlay.

Figure 28 Assembly Area (Location 1)
Source: Ground Ink Landscape Architects

Figure 29 Central axis walkway (Location 2)
Source: Ground Ink Landscape Architects

Figure 30 Main entrance on Binalong Road (Location 3)
Source: Ground Ink Landscape Architects

Figure 31 Main entrance on Binalong Road (Location 4)
Source: Ground Ink Landscape Architects

Open space provision

The school currently has a total of 62,260m^2 open space provision (which is equivalent to 93.6% of the site area). The proposal seeks to provide around 57.6m^2 per student of open space of which a portion is play space. Play space is discussed further in **Section 6.3**.

The proposed development reduces the overall open space marginally. However, the need for more teaching facilities is appropriately balanced with the need for adequate open space.

Tree canopy

Fifty-four (54) trees are to be planted within the site as part of the application, with the boundary of the works site (shown in red in **Figure 31**). These trees would be species belonging to the Cumberland Plain Woodland ecological community and are detailed in **Figure 31**.

For the site area the current canopy cover is 940.1m^2 (12.6%) and will increase to 1,862m^2 (24.9%) with the planting of the 54 trees. The Draft Greener Places Design Guide developed by the Government Architect NSW sets an overall target for Greater Sydney to reach 40% tree canopy by 2056.The existing tree canopy for the site was very low and so achieving the 40% would require lot of additional planting. Notwithstanding the proposed planting will double the existing canopy and is a strong step toward reaching the Greater Sydney target by 2056. The proposed doubling of tree canopy cover will dramatically improve the site amenity and canopy coverage.

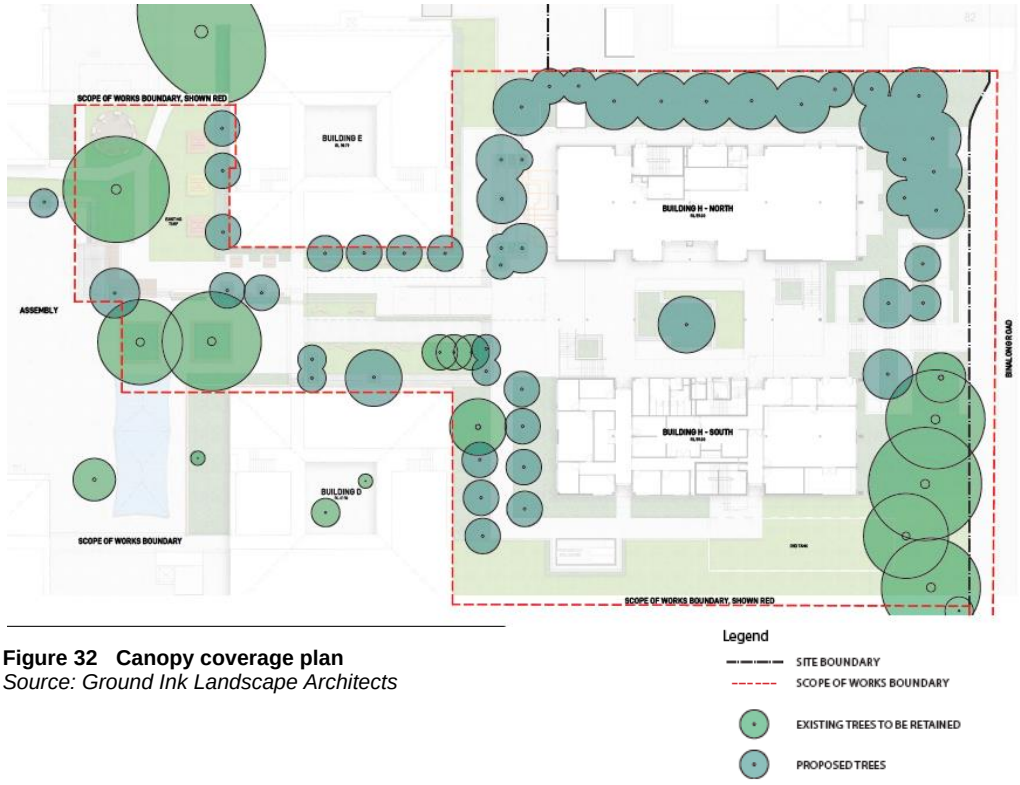


Figure 32 Canopy coverage plan
Source: Ground Ink Landscape Architects

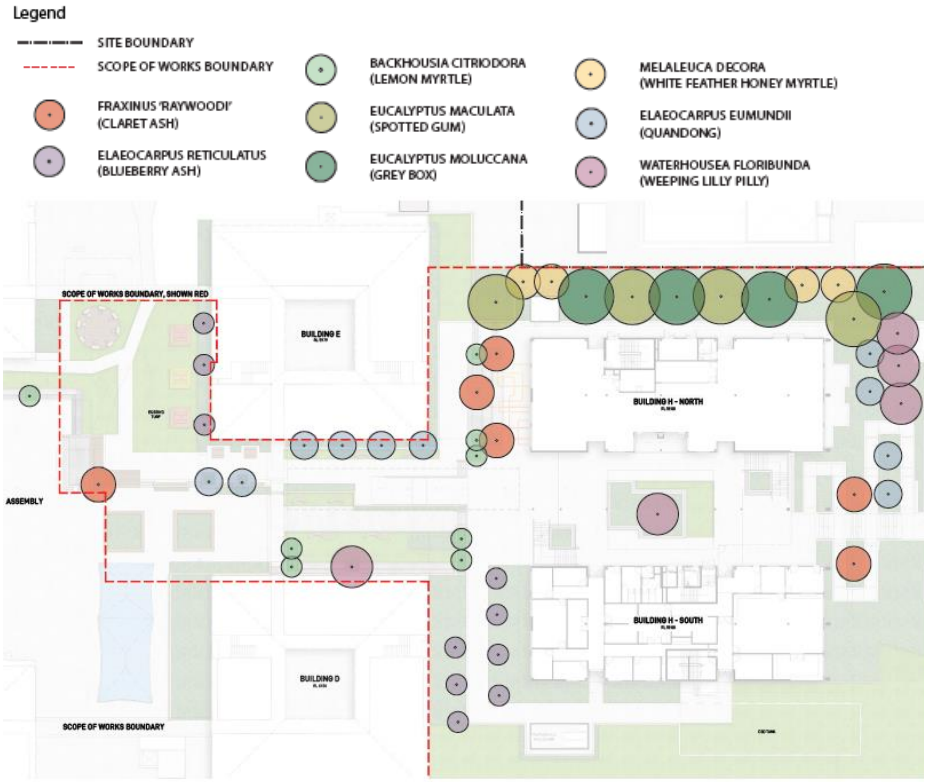


Figure 33 Tree species planting plan
Source: Ground Ink Landscape Architects.

Table 7 Trees and tree canopy

	School site		Development site (located within the school site)	
	Trees	**Tree canopy** *m^2 and site coverage*	**Trees**	**Tree canopy** *m^2 and site coverage*
Current	183	9,946m^2 (15%)	17	1437m^2 (14.4%)
Retain	172	9,426m^2 (14.2%)	12	940m^2 (12.6%)
Remove	5	497m^2 (0.8%)	5	497m^2 (4.99%)
Additional	54	1319 m^2 (2%)	54	1319m^2 (13.2%)
Total after development	226	10,745m^2 (16.2%)	66	1,862m^2 (24.9%)
Difference	*+49*	*+799m^2 (+1.2%)*	*+49*	*921.9m^2 (12.3%)*

3.12 Signage

Two signs are proposed including:

- A building identification sign located at the front of the new building a Binalong Road frontage; and
- A digital and LED notice board for community information mounted on a concrete wall.

Building identification sign

A sign is proposed on concrete wall at the front of the new building. The sign will serve as building identification. The sign will be affixed to a 2.4 metres high concrete wall at the entrance of the school on Binalong Road. The details of the signage zone are shown in the architectural drawings package at **Appendix E**.

Figure 34 The location of the building identification sign on Binalong Road
Source: Ground Ink Landscape Architects.

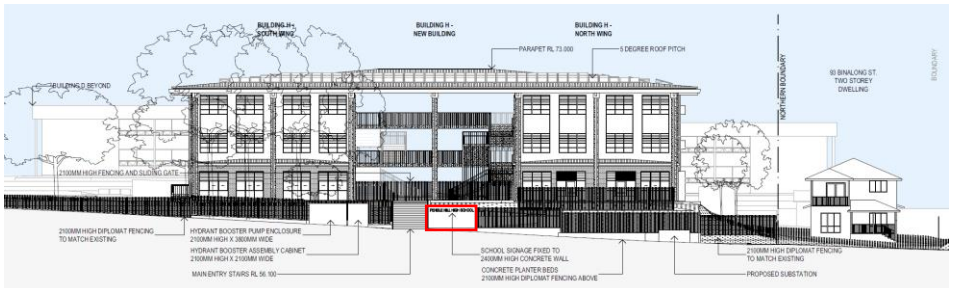


Figure 35 The new building as viewed from Binalong Road
Source: Fulton Trotter Architects (location of the building identification sign shown in red)

Community information sign

There is currently a sign on the site located on Binalong Road, south of the proposed building. It is proposed to replace the existing sign with a digital LED sign to be used for notification of community events. Details of the community information sign are provided in **Table 8** below. The proposed sign would be placed in the same location as the existing non-digital sign, shown on extract of proposed site plan at **Figure 37**. The new sign would be mounted on a concrete wall.

Figure 36 The existing community notification sign (non-digital) to be replaced.
Source: Metromap.

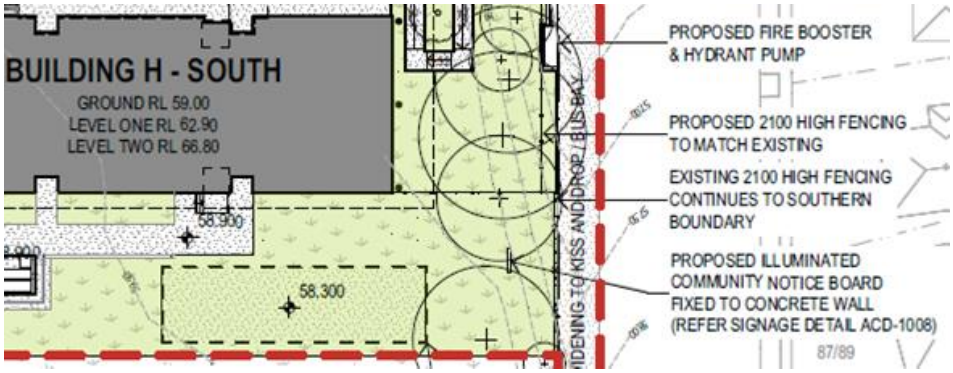


Figure 37 Community Information sign location
Source: Fulton Trotter Architects

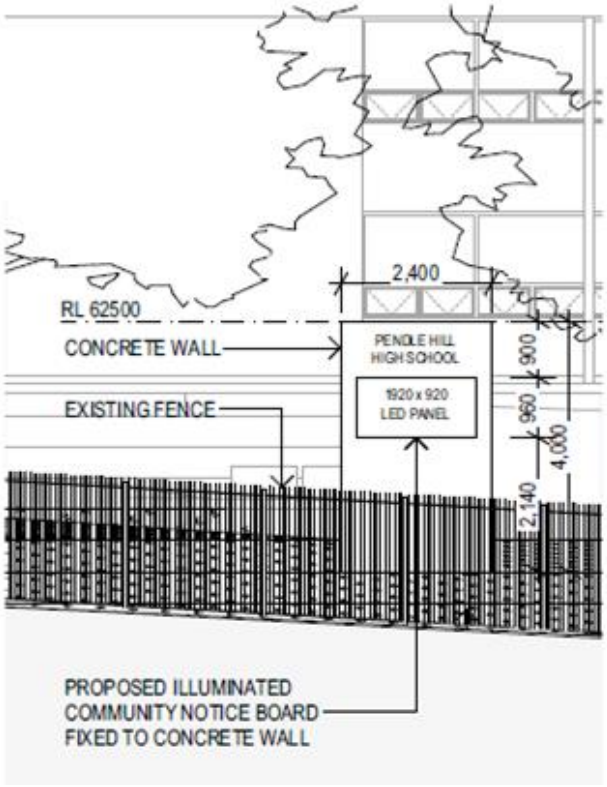


Figure 38 Community Information Sign Elevation
Source: Fulton Trotter Architects

Table 8 Proposed signage characteristics

Characteristics	What is proposed
Dimensions (height)	4,000mm
Dimensions (width)	2,400mm
Format	Digital sign – The sign will use digital technology to display bright, high quality electronic images. Luminance will be controlled and adjusted automatically.
Display	Variable message sign (VMS) – the sign will display static images only, which are presented successively at set intervals (dwell time). Display area (LED panel) 1,920 x 920mm
Hours of operation (total)	7am-7pm seven days a week
Hours of operation (dynamic display)	All remaining hours of operation excluding the school zone times specified above.
Nature of messaging	Notification of community events

The hours of operation of the sign would be limited to between 7am-7pm seven days per week to minimize disruption and light spillage impacts for residents of adjoining properties. The signage zone has been assessed against *State Environmental Planning Policy No. 64 – Advertising and Signage* and the accompanying *Transport Corridor Outdoor Advertising and Signage Guidelines* in **Section 5.4**.

The proposed building identification signage zone is consistent with the objectives and assessment criteria of SEPP 64. Building signage zones are standard at the main entrance of a school and in this instance the environmental impacts are assessed as minimal.

The proposed display dwell times, transition times and luminance will be enabled to be controlled and changed electronically. The signage will also be made available for emergency messaging as required.

3.13 Community Use of School Facilities

The Social Impact Statement (SIA), prepared by Elton Consulting is provided at **Appendix K**. Currently there are no formal shared use agreements in place for Pendle Hill High School, however some of the other local schools use the playing fields for their sports carnivals and some recreational grounds use the sporting fields on an ad hoc basis.

Notwithstanding, during pre-application consultation with Council it was identified that there is a shortfall of available community infrastructure in the immediate vicinity of the school. As such, Council has indicated a desire to share facilities where practical to provide social benefits within the locality.

School Infrastructure NSW has a current Memorandum of Understanding with Council around exploring partnership opportunities. Council have identified in their Community Infrastructure Strategy July 2020 the following needs across the LGA:

- Libraries: There is a shortage in library and learning space of approximately 4,400m^2. Council see libraries as forming an entry point to access other services.
- Community Space: There is a shortage in community space including halls, community centres, hubs and meeting rooms, of approximately 4,466m^2. There is also a shortage of facilities to cater for gatherings of 100+ people.
- Indoor Sports Courts: There is a shortage of 30 indoor recreation courts including sports courts for basketball, as well as indoor gyms and other amenities such as changing rooms, toilets, canteens and spectator areas. The strategy suggests a 4 court configuration functions best. There is also current demand for futsal, badminton and table tennis.
- Sports Fields: There is a shortage of 266 ha of sportsgrounds and by 2041 it will increase to 338 ha. Council's target is to partner with the Department to increase the number of shared-use full-size playing fields (from 3 to 16 by 2041).

It is noted that Council and School Infrastructure NSW are currently in discussions about future partnership opportunities, including the possibility of shared and joint use arrangements. Any such arrangement would provide improved facilities for all community users and contribute to community cohesion. School Infrastructure NSW will continue to liaise with Council to determine any such arrangements regarding the shared or joint of facilities.

3.14 Lighting

Minor building and wayfinding lighting is proposed across the site. The lighting system will only be on during school operation hours, and as a result no light spill impacts to adjoining residential properties will result from the development. If any after house community were to occur on the site in the future, building and wayfinding lighting would be designed so as to not cause any nuisance to neighboring properties.

For further details please refer to the lighting statement prepared by Aurecon at **Appendix AA.**

3.15 Hours of Operation

The hours of operation of Pendle Hill High School vary, however classes generally operate between 8:00am and 3:30pm, Monday to Friday. Note some sporting and extracurricular activities may occur outside of these times and the school currently hosts the local primary schools' sports carnivals and inter-school sports competitions every second week.

The proposed development does not seek to alter existing operational arrangements at the school. It is worth noting however that the illuminated community information sign will be operational outside of the standard school hours, from 7am to 7pm seven days a week.

3.16 Employment

It is proposed that the development will generate 44 full-time jobs during the construction phase and 18 full time employment staff during the ongoing operation of the school following completion of the development. Figures for future staff requirements were provided by the NSW Department of Education.

3.17 Construction Hours

As stated in the Preliminary Construction Management Plan at **Appendix N**, School Infrastructure NSW proposes the following standard construction hours:

- Monday to Friday: between 7am to 5pm; and
- Saturday: between 8am to 1pm.

No work will be conducted on Sundays or Public Holidays. A variation to these hours may be required for out of hours work or where special requirements exist (such as oversized deliveries or works which need to be carried out when students are not present at the school).

As detailed at **Section 3.8**, the project will be constructed in one stage, anticipated to commence late 2021. The indicative duration of construction will be one year.

4. Consultation

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

4.1 Council and Agency Consultation

Parramatta Council

A formal pre-DA meeting was held on 3 February 2021. The key matters discussed and a response are detailed below. Council were also represented on the Parramatta Transport Working Group.

Table 9 Council Consultation

Issue raised by Council	Response from the Applicant
Loss of sporting field – Council officers recommend that the location of the new building is reconsidered to avoid losing the capacity of one (1) sports field.	There is not a sports field located where the building is proposed to be, see Figure 16 for the location of current sports fields.
Building orientation – Orientation of the new building is east-west will result in sub-optimal cross-ventilation and solar access outcomes. It is recommended that the building orientation is adjusted to reduce direct sunlight and capture cooling breezes.	The building is required to be orientated addressing Binalong Road to provide a good street interface and street address outcome. Orientating the building north-south instead of east-west would mean the building address to the street would be a side wall which is a poor amenity outcome and raises safety concerns. A north-south alignment would produce a negative connectivity and wayfinding outcome by cutting off the new buildings from the old campus, where the current orientation allows for a continuous link between the two parts of the school.
Connectivity and active transport – Direct connections between the school entrances and active transport options should be provided where possible, ensuring that pedestrian routes are safe.	The design creates a continuous pedestrian link between the Binalong Road entrance and the existing buildings on the site. The proposal includes bicycle parking and other means to encourage an increase in active mode share, detailed in **Appendix K.**
Ecologically Sustainable Development – Energy-efficient building materials and adequate shading (internal and external) are recommended.	The building has been designed to achieve a 5 Green Star rating. Further details are provided in the attached Ecologically Sustainable Development report (**Appendix Y**).
Height of building – The proposed height exceeds the maximum 9m height control in the Parramatta LEP.	The building has been assessed against the Parramatta LEP and the Draft Harmonisation LEP in Section 5.5 and 5.6. The height of the proposed building is considered reasonable. The 3-storey built form is to balance the need to integrate with surrounding land uses with the need to provide enough floor space for an additional 14 learning spaces and new core facilities to accommodate the growth in student enrolments.
Visual and acoustic impact to the north – There may be visual and acoustic impacts to the residential dwellings to the north.	A view analysis has been conducted from six location including two that are north of the site. The view analysis is provided in Section 6.5. The acoustic assessment is provided in Section 6.9.
Visual privacy to Binalong Road – Visual privacy in relation to the residential dwelling on Binalong Road across from the proposed school entrance.	A visual privacy assessment for the properties across from the school was completed and the views from the proposed building are shown in Section 6. Aluminum louvres have been provided to windows to the northern façade to limit views into these neighboring properties.

Planting trees will not mitigate noise issues.	Further, the landscaping planned along Binalong Road and the 15.85 metres setback of the building from Binalong Road will reduce the visual privacy impacts to 82 Binalong Road. Planting will provide a visual screening from the street and improve amenity but is not intended as a means to reduce noise. An acoustic assessment has been completed and details the design measures incorporated to reduce noise, see **Appendix X.**
Traffic, proposed quantum of parking and drop-off/pick-up area need to be addressed.	These matters were discussed in the Parramatta Transport Working Group, see summary of comments in Table 10.
Social impacts – A social impact assessment is required to assess: loss of open space and sports field demonstrate how students will be able to meet the physical activity requirements of the Department of Education 'Sport and Physical Activity Policy' in the context of the limited capacity of nearby Council facilities how the school will encourage to make their facilities available for use by the community' given the reduction in open space assess how the school will enable community access to the school facilities given the reduction in open space and recreation facilities on the site and the School Infrastructure NSW's Share Our Space program.	A Social Impact Assessment was completed and is attached at **Appendix K.** The location of Building H will not impact on the number of sport fields, see site plan in Section 2.12 of this report. The capacity of the school to meet the physical activity requirements of the Department of Education's *Sport and Physical Activity Policy* is therefore unchanged by the proposal. There is no current shared use arrangement however the development provides additional lines of security that would allow for components of the new facilities to be opened to the public for shared use in the future.
Stormwater and drainage – The proposed development will require a stormwater drainage plan prepared by a suitably qualified and empierced Civil Engineer. On-site stormwater detention (OSD) shall be provided and designed such that stormwater runoff drains to the OSD tank located at the low point of lot by piped and surface flows and to minimise area bypassing the OSD system.	The development will include a detention tank to control the flow into the City of Parramatta's drainage network. See Stormwater Management Plan (**Appendix W**).
Trees on Binalong Road – The retention of trees fronting Binalong Road is desirable. The trees should be retained/protected and included in any landscape proposal for the site.	Two trees fronting Binalong Road are proposed to be removed, trees 140 and 141 in the Arboricultural Assessment report. These trees need to be removed to enable the construction of the new building. They are both White Bottlebrush trees in good condition and with poor development. The remaining 8 trees on Binalong Road (Trees 142-149) will be retained as they have high retention value. Those shown with a blue circle in the image below will have trunk and branch protection during construction.

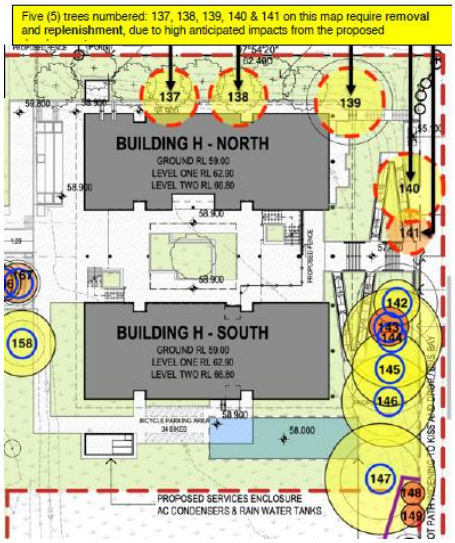


Figure 39 Trees on Binalong Road

Source: Fulton Trotter Architects

Trees within the site – Consideration must be given for opportunities to retain existing trees within the development site and road reserve. Consideration of potential development impacts must be given to all trees located within adjoining properties where located within 3m of the common boundary.	Most of the trees are being retained – 172 of 183 trees in the school grounds. The trees being removed are either in poor condition or directly impacted by the construction footprint of the new building.
Publicly accessible pedestrian links through school grounds – The super-lot nature of the site currently creates issue with permeability and walkability. The proposed works forms an opportunity to improve walkability – especially from the existing bus stops along Binalong, Burrabogee and Ballandella Roads.	The option for a public pedestrian access through the school ground was considered by the Applicant but was not pursued. Access into the school will need to be managed to ensure the safety of staff and students, and as a result the site is unable to provide a consistent public pedestrian access through day and night. The location of the administration office on the ground floor of the new building is a deliberate design decision to ensure passive surveillance of who is entering and leaving the school grounds.
Shared open space and community facilities – The provision for shared open space and community facilities including after-hours would provide a community benefit.	No shared access arrangement is currently being pursued however the design is adaptable so as to be able to accommodate a future shared use arrangement if one were established.
Building materials – The building will rely on high quality building materials to achieve a robust and visually pleasing building.	The building materials have been chosen to integrate well visually with the existing built form but are more modern and sustainable materials than those used when the existing buildings were constructed. Materiality is discussed in Section 3.6 and in the Architectural Design Report (**Appendix F**).
Public footpath – Now that they are introducing two large blocks that has access from Binalong Road, a public footpath wide enough to accommodate pedestrians, with the emphasis on students, will be required. Provide a 2.5m - 3m public footpath along the Binalong Road bus lane/parking lane/drop off zone that currently exists on this side of the site.	Pedestrian upgrades were discussed as part of the Transport Working Group and a shortlist of locations for upgrades was identified and are proposed as part of this application. See Section 6.5. One of the identified upgrades is the widening of the footpath to 3.5m with a 1-meter buffer to the bicycle lane.
Site accessibility – Accessibility in relation to the proposed arrangement for ramping and lift for the new building.	The ramping and lift lobby arrangement is fully compliant with the relevant regulations for enabling equitable access into the site and new building, See Section 6.13.

Parking – Neither the Parramatta DCP 2011 nor RMS Guidelines provide parking rates for public schools. As a result, the traffic impact assessment report is to estimate the parking demand of the proposed development. Parking demand is to be determined and addressed in detail.	Parking is addressed within the Transport and Pedestrian Accessibility Report at **Appendix K**.

NSW Department of Planning, Industry and Environment

The Department of Planning, Industry and Environment have been notified of the project by School Infrastructure NSW and are the consent authority for the proposal.

A scoping meeting was held with the Department in conjunction with the lodgment of the request for SEARS. The Department highlighted the need for extensive consultation with stakeholders and consideration of impacts within the neighborhood.

Transport for NSW

Transport for NSW (TfNSW) attended Parramatta Transport Working Group meetings (refer below for details).

Parramatta Transport Working Group

The Parramatta Transport Working Group is represented by City of Parramatta Council, Transport for NSW, and the Department of Education. It focuses on school projects throughout the Parramatta LGA.

To date a total of seven (7) Transport Working Group meetings have been held (on 2 November 2020, 11 November 2020, 27 January 2021, 3 February 2021, 17 February 2021, 3 March 2021, and 31 March 2021).

Table 10 Transport Consultation

Meeting / issues	Response
2 November 2020 – Review of Rapid Transport Assessment	
Council noted there is unrestricted parking available on many streets around the school and this causes more people to park in local streets.	Noted.
Council requested to see a survey and the school's transport strategy to support their approach. Transport recommend road safety audit of the existing condition	A Travel Survey was conducted and a Green Travel Plan which sets out the strategy for achieving a more sustainable mode share, See **Appendix L**.
TfNSW recommended the proposed pedestrian crossings be consulted with the Road Safety Team at TfNSW	Implemented by TTW.
11 November 2020 – Bus services and Binalong Road bus bay	
Proposed to convert half of existing Binalong Road bus bay to create a Pick-up drop-off location was discussed and it was acknowledged potential car-bus conflict would need to be resolved.	Noted and implemented. A PUDO strategy is proposed in Appendix K, factoring in safety concerns.
It was noted the actual demand for bus services is much higher than is reflected by Opal data.	TTW have provided bus demand forecasting as requested, in **Appendix L**.
27 January 2021 – Pedestrian crossings, car parking and kiss and ride	
Council to confirm if the pedestrian upgrades proposed align with local strategy.	Noted.
Council requested justification for parking provision being 80% where 93% is usually recommended.	Reasons for proposed parking are covered in **Appendix L**.
TTW requested to investigate kiss and ride location options	A kiss and ride strategy is included in **Appendix L**.

17 February 2021 – Review of the overall transport strategy	
TTW presented on several aspects of the site transport strategy including: – pedestrian crossings – kiss and ride locations – roundabout swept path – Binalong Road bus bay arrangements – Car and bicycle parking.	See **Appendix L** for the transport strategy.
Council reiterated concerns raised in previous meetings.	Noted and implemented.
TTW to amend kiss and ride strategy to have smaller kiss and ride zones distributed around the site. Discussion on some of the pedestrian upgrades being put forward for federal funding.	
It was agreed a kiss and ride on Knox Street would not be feasible due to parking concerns on this street.	
TTW requested to explore options to improve median strips on Binalong Road.	TTW have identified some scope for some minor median improvements but discussions are ongoing.
Note these minutes reference 24 February meeting was postponed to 3 March 2021.	
3 March 2021 – A continuation of the session commenced 17 February.	
– Recap of the transport strategy – Cycling infrastructure – Bicycle parking – Bus services and Binalong Road bus bay – Green Travel Plan – Kiss and ride strategy (as revised based on 17 February 2021 meeting) – Car parking	See **Appendix L** for the transport strategy.
Council was supportive of the kiss and ride strategy as revised, but wished to continue the discussion around car parking.	Noted.
Council felt the proposed number of bicycle parking spaces was generous.	Noted. See discussion in **Section 6.5**.
31 March 2021	
No minutes issued – refer notes taken by TTW below:	
The finalized transport strategy for the project was presented to the Working Group.	Noted and implemented.
TTW queried the preferred documentation strategy for the Green Travel Plan and Construction Traffic Management Plan, and if these should be separate documents or combined with the Traffic Impact Assessment. Both Council (RS) and TfNSW (JB) had no particular preference and it was agreed that a combined document would probably be easier.	They are provided as a combined document in this application.
TTW noted that the Road Safety Audit would be closed out parallel to the SSDA, and that remaining comments and mitigation measures would be picked up in the Detailed Design. Council (RS) note that the external works will have Local Traffic Committee conditions and other requirements in the future.	Noted.

4.2 Local Aboriginal Land Council

As per the Consultation Report appended at **Appendix K,** consultation with the Local Aboriginal Land Council and registered aboriginal stakeholders was conducted in December 2020 and January 2021. SINSW also engaged an Aboriginal cultural heritage

consultancy to lead consultation and to inform the proposed built form and landscape design, in order to create an immersive cultural environment that supports the NSW Department of Education Aboriginal and Torres Strait Islander History and Cultures Cross Curriculum Priority learning objectives and enables the NSW Department of Education's Aboriginal Education Policy.

A strategy has been developed to respond to connection with country within the new buildings and open space areas. The strategy will continue to be developed assisted by Tocomwall who will lead the consultation with local Aboriginal land councils and members of the Aboriginal community.

4.3 Government Architect NSW

School Infrastructure NSW and Trotter Fuller Architects consulted with the NSW Government Architect (GANSW) on 11 March 2020 and 3 March 2021through the State Design Review Panel (SRDP).

The modifications proposed and the architect's response are summarized at **Table 11** below. A full schedule of SDRP feedback and the architect's response is provided in the Architectural Design Report at **Appendix F.**

Table 11 Response to matters raised by GANSW

Design option	Architect's response
Aggregating the Access Ramps to the North It was explored whether it was possible to relocate the proposed ramps to one side of the entrance stairs (the Northern side) in order to reduce the visual impact of the ramps when viewed from Binalong Rd. This would allow the area to the South of the new entry stairs to include more significant landscaping around the existing trees.	This option was not considered appropriate given it was discovered that: – The area to the north of the stairs would significantly reduce the generous garden beds provided between the ramps and increase the visual impact of the ramps in this area as a result; and – The revised arrangement of ramps would also necessitate the removal of the proposed terrace area adjacent to the northern wing of the proposed building H, which would be used as an outdoor learning area connected into the library.
Public Entry Plaza / Lowering the Building to Street Level The option of lowering the level of the ground floor of Building H to the street level of Binalong Road was explored. The intent was to improve the accessibility into the site from Binalong Road. This is demonstrated by the sketch below.	This option was deemed inappropriate, mainly because the revised levels would disconnect the proposed facilities from the existing school buildings. The level change would place the library and administration buildings a full storey below the existing buildings and existing main central courtyard and therefore physical disconnect the various aspects of the school in a dysfunctional way. Additionally given: – Significant earthworks to the area of Building H and significantly change the existing topography of the site; and – It would also introduce large retaining walls around the building which would reduce the amount of natural light in the central courtyard space.

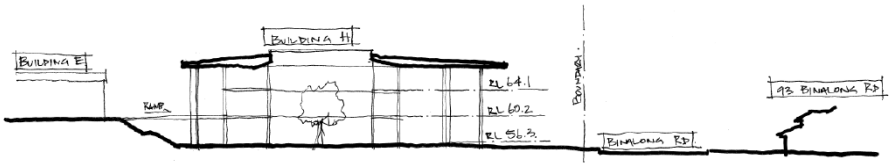


Figure 40 Public Entry Plaza

Source: Fulton Trotter Architects

Public Entry Plaza / Relocate Lift and Extend to Street Level The option of extending only the lift to the street level was explored. This would require the location of the lift to be moved so that it can extend down to the street level. This would provide an alternative to the ramping to those with access requirements. In this option, a forecourt off Binalong Road is created leading to a lift and foyer.	The ground floor is not relocated and therefore stairs would still be required to facilitate pedestrian access from the street level into the remainder of the site. The creation of the forecourt access to the lift and foyer would require significant level changes (in walls or garden beds), between the entry forecourt and the rest of the building. These walls would need to be carefully managed to avoid unsupervised areas/gaps that could pose a safety risk. Further, because the stairs could not be removed in this option, it was felt that it wouldn't greatly improve the visual appearance of the entry from the street. For these reasons this design modification was not pursued.
Reducing Entry Stairs and Ramps / Partially Lowering the Building Levels The option of partially lowering the level of the Ground Floor of Building H in order to reduce the amount of stairs and ramps to Binalong Road was explored. This option would improve the accessibility and connectivity from the street by halving the height of the stairs required as well as the length of ramps required.	Partially lowering building levels would create an increased physical disconnection between the proposed new facilities (particularly the library and administration) and the remainder of the school. It was felt that the perceived benefit of this option on the street connectivity was not significant enough to justify the impact on the operations of the school by creating a disconnect between the new building and the existing facilities. For this reason, this modification to the design was not considered appropriate. However, is response to the feedback the configuration of the stairs and ramps has been revised and reconfigured to allow for an improved forecourt to Binalong Road.
Relocate (if possible) the substation away from the urban edge / mitigate its impact to the adjacent residences	The location of the substation has been reviewed and has been relocated further away from the boundary to the neighboring property along Binalong Road. This required a reconfiguration of the other pieces of services infrastructure in the area – most notably the fire booster assembly which has been relocated to the South of the entry stair.

In addition to the above, other more minor amendments to the design were suggested by the SDRP such as considering different site entry points, the treatment of planter walls, and changes to landscaping and outdoor learning spaces. Refer to **Appendix F.**

4.4 Community Consultation

Schools Infrastructure NSW consulted with the community on the proposal through several channels. A project reference group was established including the school principal and a Parents & Citizens (P&C) representative. The group met to workshop approaches to design and construction and conduct site visits. The broader local community was consulted via:

- Regular updates and notifications posted on the schools website;
- Updates in the school newsletter;
- Local letter drops;
- An email and 1300 project number established to respond directly to concerns;
- An online survey aimed at students, teachers and parents (via the school website and distributed to the school email list);
- An online survey aimed at the broader community (via the City of Parramatta Council website);
- Updates on the Skoolbag App; and
- A travel mode survey conducted on site.

The results of the travel mode survey are discussed in the Transport and Accessibility section of this report (Section 6.6) and the key issues and concerns raised by the community in the survey are summarised in the Community and engagement report (Appendix J).

5. Statutory and Strategic Planning Context

5.1 Overview

This EIS includes an assessment of the proposed development against the following strategic plans, policies and guidelines, in accordance with the issued SEARs. The proposal has been assessed and found to be generally consistent with these, as detailed within **Table 12** below and the following sections of this EIS.

5.2 Strategic Planning

This proposal has been considered against the relevant strategic planning policies in accordance with the issued SEARS. The proposal has been assessed and found to be generally consistent with these, as detailed within **Table 12** below.

Table 12 Strategic planning framework

Strategic planning policy	Response
NSW State Priorities	NSW State Priorities are fourteen priorities unveiled by the NSW Premier, in a commitment to making a significant difference to enhance the quality of life. The 14 priorities are: – Bumping up education result for children; – Increasing the number of Aboriginal young people reaching their learning potential; – Protecting our most vulnerable children; – Increasing permanency for children in out-of-home care; – Reducing domestic violence reoffending; – Reducing recidivism in the prison population; – Reducing homelessness; – Improving service levels in hospitals; – Improving outpatient and community care; – Towards zero suicides; – Greener public spaces; – Greening our city; – Government made easy; and – World class public service. The proposal seeks to upgrade an existing school and create additional educational capacity within the Parramatta School Community Group. The development application will contribute to an increase in jobs and education, strengthening the local Toongabbie economy.
The Greater Sydney Regional Plan – A Metropolis of Three Cities (2018)	The *Greater Sydney Region Plan – A Metropolis of Three Cities,* was released by the Greater Sydney Commission in March 2018 and is the NSW Government's 40-year plan for the Sydney metropolitan area. The Pendle Hill High School redevelopment aims to assist in meeting Sydney's growing educational needs. The proposal is consistent with the objectives and directions of the Metropolis of Three Cities Plan, including: ***Objective 1 – Infrastructure supports the three cities*** The redevelopment is critical in prioritizing infrastructure investments for the future of the community. The upgrade of Pendle Hill High School aligns with

Objective 1 through enhancing and providing educational services for students and staff.

Objective 2 – Infrastructure aligns with forecast growth

The Greater Sydney Region Plan identifies that Sydney's population is to grow from 4.7 million to 8 million by 2056. A significant increase in population growth is expected in the area coupled with large shortfalls in student enrolment places. The proposed works will help provide jobs and services to the population.

Objective 3 – Infrastructure adapts to meet future needs

The redevelopment of Pendle Hill High School will enhance the school's services to adapt to the ever-changing technological environment of the 21st century. The upgrade works will provide new opportunities for the student and staff.

Objective 5 – Benefits of growth realized by collaboration of governments, community and business

Extensive collaboration has been undertaken by the project team, to produce good outcomes for the design and function of the site. Collaboration with government, agencies and the community have assured that the proposed works undertaken will respond to the communities changing needs.

Objective 6 – Services and infrastructure meet communities changing needs

As our population is growing, demographic changes are also occurring – with a projected 333,000 more children and young people than today. With this projected growth, the proposed works to develop Pendle Hill High School will help facilitate and support the needs of the SCG and local community.

Objective 7 – Communities are healthy, resilient and socially connected

The proposal aims to upgrade the school to make it more accessible and connected to the community. This will be achieved through the introduction of a shared use arrangement for facilities and improved physical connectivity into the school and through the school from adjoining streets.

Objective 12 – Great places that bring people together

The proposal aims to upgrade the local community facilities located on the Pendle Hill High School site. The proposed works will help facilitate and celebrate the local character of the local community and supports the wellbeing of students, staff and the wider community.

Objective 14 – A Metropolis of Three Cities – integrated land use and transport creates walkable and 30-minute cities

The Proposal supports the 30-minute city concept through providing educational services and jobs to the local community. The proposed works aim to support the operation of the school within peak times and its effect on the local road network and services, through the promotion of active transport options – particularly, walking and cycling.

Objective 19 – Greater Parramatta is stronger and better connected

The Greater Parramatta is one of the largest integrated health, research, education and training precincts in Australia and is a key provider of jobs for the Central River City. The proposal will increase the quality and quantity of education facilities in Greater Parramatta to service and strength the community.

Objective 30 – Urban tree canopy cover is increased

The urban tree cover is vital in providing green infrastructure to Pendle Hill High School. Aligned with the guidance on tree canopy in *Greener Places* (GANSW, 2020), the current tree canopy of the site is below the greater Sydney average of 21%. The proposal will cause an increase of the current tree canopy from 12.6% to 24.9%. Refer to the landscape plans appended at **Appendix G**, for further details on proposed canopy cover.

Objective 36 – People and places adapt to climate change and future shocks and stresses

The proposal will incorporate the use of sustainable design principles such as passive heating and cool through materials, choice of vegetation and tree canopy in order to reduce heat island impacts. Students will be encouraged to

	use shared and active transport modes to get to school with an overall objective to minimise private vehicle movements to the site. Overall, the project aligns with Greater Sydney Region Plan as it will redevelop and provide additional and improved educational facilities to meet the growing needs of the local community.
Future Transport Strategy 2056	The Future Transport Strategy sets out a 40-year vision, direction and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. The proposal is consistent with the Strategy by seeking to resolve existing known transport issues at the site.
State Infrastructure Strategy 2018 – 2038 Building the Momentum	The proposal is consistent with the State infrastructure Strategy through: – Delivering school infrastructure to keep pace with student numbers; – Providing modern learning environments; and – Facilitating shared arrangements between schools and community organizations.
Sydney's Cycling Future 2013	The goal of Sydney's Cycling Future is to make cycling a safe, convenient and enjoyable transport option for short trips. School Infrastructure NSW is supportive of students and staff using bikes as their main mode of transport to and from the school grounds. The site will provide 70 bike parking spaces for students and staff to park their bicycles.
Sydney's Walking Future 2013	The goal of Sydney's Walking Future is to encourage people to walk more, to make it more convenient, better connected and safer mode of transport. The proposal supports walking by maintaining multiple pedestrian access points to the school for both students and staff.
Sydney's Bus Future 2013	Sydney's Bus Future Strategy is the NSW Government's long-term plan to redesign the bus network to meet customer needs now and into the future. A bus stop is located directly outside the school on Binalong Road which has five public bus routes operating from it. It is proposed to relocate the existing public bus stop and stagger school bus arrival and departure times to ease congestion.
Crime Prevention Through Environmental Design Principles	The Architectural Design Statement provides a CPTED assessment of the proposal at **Appendix F**. The assessment considers the objectives and desired outcomes of the principles/ strategies employed by CPTED, including: **Surveillance** The entrance points are appropriately fenced to allow them to be closed off when they are not in use and are landscaped in a way that avoids creating hidden areas. Further, the play spaces and student spaces created as part of this project have been designed to allow for good passive and active supervision at all times – particularly during the school's operating hours. **Access Control** The new main site entrance that is created as part of this work is designed to allow for a free flow of students and parents at pick up and drop off time. However, during school operating hours the entrance is closed off and visitors are directed to the Administration Reception area to ensure that they are checked and signed-in before they are given access to the school. The facilities have been designed in a way as to allow them to be easily locked down in a case where there was a security incident. **Territorial reinforcement** The proposal creates a clear distinction between public and private property. Wayfinding signage and visual cues have been incorporated to reinforce this. **Space Management** Maintenance is closely related to principle, territorial reinforcement. Regular maintenance of school grounds discourages negative social behavior and is a matter of safety and pride for Pendle Hill High School. NSW Department of Education has a number of programs in place for the ongoing maintenance of their facilities and this development would fall under this program.
Healthy Urban Development Checklist, NSW Health	The Healthy Urban Development Checklist prepared by NSW Health assess the built environment factors that impact on health. As NSW undergoes significant population growth over the next 20-30 years, it is imperative that

	the upgrade is well designed to reduce health risks and improve health conditions, to support this growth. The upgrade promotes the checklist's 11 themes through the design and function of the site. The upgrade supports the themes of the checklist, including; – Healthy eating; – Physical activity; – Housing; – Transport and connectivity; – Quality employment; – Community safety and security; – Open space and natural features; – Social infrastructure; – Social cohesion and connectivity; – Environment and health; and – Environmental sustainability and climate change. The Proposal aims to improve the amenity and wellbeing of students and staff, through improved landscape (**at Appendix G & H),** architectural design (at **Appendix F**) and incorporated CPTED principles (at **Appendix F**).
Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)	Better Placed is an integrated design policy for the built environment of NSW. It seeks to capture our collective aspiration and expectations for the places where we work, live and play. The proposal aligns with the objectives for good design, including; – Better fit: contextual, local and of its place; – Better performance: sustainable, adaptable, durable; – Better for community: inclusive, connected and diverse; – Better for people: safe, comfortable and liveable; – Better working: functional, efficient and fit for purpose; – Better value: creating and adding value; and – Better look and feel: engaging, inviting and attractive. The project team have undertaken consultation with GANSW during the design of the proposed development These objectives and consultation meetings have shaped and guided the design. Consultation with GANSW is further explained in **Section 4** of this EIS.
Draft Greener Places Policy	The Draft Greener Places policy provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The draft guide provides strategies, performance criteria and recommendations to assist planning authorities, and design and development communities to deliver green infrastructure. The Greener Places Design Guide has three main objectives: – Open space for Recreation: green infrastructure for people; – Urban tree canopy; green infrastructure for adaptation and resilience; and – Bushland and waterways: green infrastructure for habitat and ecological health. The Draft Greener Places Policy will guide the delivery of green infrastructure of the site. Consultation with GASNW commenced at the beginning of the project to ensure that the project will deliver and provide green infrastructure for Pendle Hill High School and the greater community. Open space will be provided throughout the upgrade, including the assembly area, central atrium and central axis walkway. Tree canopy will be increased, with soft and hard landscaping works. The tree canopy target for Greater Sydney in the Draft Greener Places Policy is 40% by 2056. The tree canopy on the site is currently 12.6% and would increase to 24.9% with the proposed works.

Greater Sydney Commission's Central District Plan	The Central City District Plan was released by the Greater Sydney Commission in March 2018. The Plan identifies that the Central City District has an anticipated growth of 89,360 additional students by 2036. Several planning priorities in the District Plan are relevant to the proposed development including: ***Planning Priority C2 – Planning for a city supported by infrastructure*** It is considered that the proposed development will contribute to the success of this Planning Priority as it enables optimal land use and allows Pendle Hill High School to increase their student capacity. ***Planning Priority C3* – Providing services and social infrastructure to meet peoples changing needs** The NSW Department of Education estimates an extra 89,360 students will need to be accommodated by 2036. The Proposal will assist this demand by updating educational facilities on site, to continue to help and provide services to Pendle Hill High School and the surrounding local community. ***Planning Priority C4 – Fostering healthy, creative, culturally rich and socially connected communities*** Pendle Hill High School will develop a stronger connection with the surrounding local community, providing open spaces and facilities for local sporting clubs extracurricular groups. The Proposal will assist in enhancing these spaces for community use, supporting social cohesion and collaboration of the local community. ***Planning Priority C9 – Delivering integrated land use and transport planning and a 30-minute city*** The Proposal supports the 30-minute city concept through providing educational services and jobs to the Toongabbie community. The proposed works aim to support the operation of the school within peak times and its effect on the local road network and services, through promotion of active transport options – particularly, walking and cycling. ***Planning Priority C9 – Growing and investing in health and education precincts*** As the demand for educational services rise to support the population, it is crucial that the proposed works are undertaken to enhance and update the site to assist this demand. Investment in Pendle Hill High School is crucial to sustain future student growth. ***Planning Priority C16 – Increasing urban tree canopy cover and delivering Green Grid connections*** The proposal will increase the overall tree canopy coverage of the site from 12.6% to 24.9%. ***Planning Priority C17 – Delivering high quality open space*** Open space areas will be improved and expanded to create places for students, teaches and friends of the school to meet and connect. The project is consistent with the priorities of the Central City District Plan and will provide additional, modern, educational facilities to accommodate forecast growth and meet future educational needs of the community.

Parramatta Local Strategic Planning Statement (LSPS) 2020	The *Parramatta Local Strategic Planning Statement* (LSPS) was publicly exhibited during September-November 2019, endorsed by Council on 23 March 2020 and assured by the Greater Sydney Commission on 31 March 2020. Over the next 20 years, the LSPS aims to guide and maintain the high level of amenity, liveability, and quality within the Parramatta LGA. As the local community grows and changes, Pendle Hill High School is a key piece of infrastructure in the LGA that can respond to the evolving needs and opportunities of the wider community. The upgrade of Pendle Hill High School is consistent with the following Planning Priorities: ***Planning Priority 13 – Plan for the majority of housing growth over the next 20 years to be delivered in the GPOP area, consistent with the Structure Plan Map and as per the City of Parramatta Local Housing Strategy (once endorsed by Council and DPIE).*** Significant population and housing growth is predicted for the local area. The expansion of the school's facilities will support this population influx. ***Planning Priority 33 – Create a high quality and safe walking and cycling network across the LGA to cater for and encourage short trip (up to 2km) to local centres, jobs, public and shared transport services, schools, local open space, Green Grid and other trip generators.*** It is predicted that the mode share for walking and cycling for students going to and from the school will increase, supported by programs to encourage students to ride their bikes as well as pedestrian infrastructure upgrades. ***Planning Priority 34 – Require Green Travel Plans for certain development proposals (see Glossary) to encourage residents to us sustainable travel modes (walking, cycling, public transport).*** A Green Travel Plan (Appendix L) was provided and details the ways that students and staff will be encouraged to use sustainable modes for trips to and from the campus. ***Planning Priority 36 – Promote and prioritize expansion of recreational opportunities and spaces with a focus on the Green Grid, Parramatta Ways Walking Strategy, and the Parramatta River.*** It has been identified that there is a shortage of open space and recreational assets within the local area adjoining the school. Improvements to the existing recreational facilities on site will expand the recreational lands available to the students of the school as well as other schools in the catchment who use the facilities for carnivals and inter-school sports. ***Planning Priority 53 – Protect and increase tree canopy cover and vegetation across public and private land.*** Eleven trees to be removed as part of the proposal will be replanted. The overall tree canopy overage on the site will increase by 1.4% ***Planning Priority 65 – Minimize risk to life through the provision of appropriate evacuation routes and building design.*** The facilities have been designed in a way as to allow them to be easily locked down in a case where there was a security incident. Additionally, the proposed works will apply CPTED principles to promote positive social behavior.

5.3 Legislation

This proposal has been considered against the relevant legislation within **Table 13** below.

Table 13 Legislation

Legislation	Response
EP&A Act 1979	The proposed upgrade is consistent with the objects of the EP&A Act, in particular: – Promotes social welfare of the community; – Promotes the sustainable management of built and cultural heritage; and – Promotes good design and amenity of the built environment. The proposed development is consistent with Division 4.7 of the EP&A Act, particularly for the following reasons: – The development promotes education services and stimulates social welfare of the community; and – The development has been evaluated and assessed against the relevant heads of consideration under Section 4.15(1).
EP&A Regulation 2000	The EIS has addressed the criteria within Clause 6 and Clause 7 of Schedule 2 of the EP&A Regulation. As required under Clause 7, additional approval under the Roads Act 1993 will be required in order to permit the proposed development to occur.
Biodiversity Conservation Act 2016	The site has minimal biodiversity impacts and the proposed impacts are minimal. An assessment of Biodiversity impacts is provided at Section 6. A BDAR waiver is appended at **Appendix Z**.
National Parks and Wildlife Act 1974	The Aboriginal Cultural Heritage Assessment Report was completed based on the legal requirements of the National Parks and Wildlife Act 1974 and concluded that there is no Aboriginal cultural heritage impact from the proposed, and any unexpected finds will be appropriately treated. The Aboriginal Cultural Heritage Assessment Report is attached at Appendix M.

5.4 Environmental Planning Instruments

This proposal has been considered against the relevant environmental planning instruments (EPIs) in accordance with the issued SEARS. The proposal has been assessed and found to be generally consistent with these, as detailed within **Table 14** below.

Table 14 Environmental planning instruments

Relevant EPI	Response
State Environmental Planning Policy (State & Regional Development) 2011	The SRD SEPP identifies development or infrastructure types that are of state or critical significance. Under the Schedule 1, Clause 14 State Significant Development includes development for the purpose of alterations or additions to an existing school that has a capital investment value (CIV) over $20 million. As the proposal has a CIV of more than $20 million it therefore constitutes SSD.
State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017	State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education SEPP) aims to streamline the planning system for education and childcare facilities across NSW, ensuring greater consistency across the state. In addition, the Education SEPP seeks to balance the need to deliver additional educational infrastructure whilst ensuring high quality design, often within established urban and residential environs. Of particular relevance to the proposed development is Part 4 of the Education SEPP, which provides a range of specific development controls for schools, including (at 35(6)) relating to design quality, as well as (at 42) the relationship to and application of development standards in environmental planning instruments, such as the Parramatta LEP 2011. With regard to Clause 35(6) relating to design quality, Schedule 4 of Education SEPP provides a number of design quality principles for schools. An overview of these principles and how these have been considered in the design of the proposal is provided below. **Principle 1 – Context, built form and landscape** For the reasons discussed within this report and the supporting Architectural Design Statement at **Appendix F**, the proposal is considered to be suitable

	with regard to its context, built form and landscaping. The siting of the proposed building is the result of a detailed master planning process, which will provide a new and improved presentation to the school, resolving existing known access and legibility issues within the surrounding street network. The proposed building has sought to integrate with existing facilities at the school, whilst ensuring sufficient landscaping, areas of open space and play space are retained across the school to support the anticipated increase in student numbers. **Principle 2 – Sustainable, efficient and durable** The proposed works will implement a range of sustainability measures, including more efficient building plant and services, a focus on natural ventilation and lighting where possible (which will be supplemented by solar panels), as well as the harvesting of rainwater and other water sensitive urban design measures incorporated across the school. Please refer to a detailed overview of these initiatives at Section 6.8 of this report. **Principle 3 – Accessible and inclusive** As detailed within this report, the proposal will significantly improve the presentation of the school to Binalong Road and resolve existing access and legibility issues within the surrounding street network. Further, the proposal is capable of complying with relevant provisions for accessibility as outlined in the Access Report included at Appendix V. **Principle 4 – Health and safety** The proposal has a key focus on health and safety of students, through the provision of the new forecourt, which will improve pedestrian access and connections to and throughout the school. Further demonstrated in the CPTED principles in the Architectural Design Statement (**Appendix F**), these principles have been implemented throughout the school to help security and access for the school. **Principle 5 – Amenity** The proposal will deliver modern, state of the art facilities, spaces and equipment for use by students and staff. These areas will provide students with an enhanced learning environment and improved amenity for all users at the site. **Principle 6 – Whole of life, flexible and adaptive** Throughout the design process, design workshops have been undertaken with the executive teaching team of Pendle Hill High School. This workshop presented the need for flexible learning environments and dedicated flexible spaces which have been incorporated into the design of the proposed development. In addition, the form and materials of the proposed new building have been designed to ensure flexibility, durability and longevity. **Principle 7- Aesthetics** Extensive streetscape facades and massing have been carefully considered to respond to the existing local context. Further to durability matters above, the proposal will have high quality external finishes, which will be aesthetically pleasing by achieving a built form that has good proportion and a balanced composition. Overall, the proposal is considered to be of an appropriate scale and form within the surrounding context. Please also refer to a detailed response to these seven (7) design principles within the Architectural Design Report, prepared by Fulton Trotter Architects at Appendix F. With regard to Clause 42 of the Education SEPP, relating to the application of development standards, please refer to a detailed assessment of the Parramatta LEP 2011 (including applicable development standards) further within this report.
State Environmental Planning Policy No. 64— Advertising and Signage	A building identification “zone” is proposed to be affixed to a new 2,400mm high wall to the Binalong Road frontage of the proposed building. A separate community information sign is proposed to the Binalong Road frontage. This sign replaces existing community information sign in the same location with one that has a notice board with digital and LED lettering for notice of school/community events. This will be operated (I.e. lettering will be illuminated) outside of school hours. Refer **Section 3.12** for details. Clause 8 of SEPP 64 requires the signage is consistent with the objectives of that Policy and satisfies the assessment criteria in Schedule 1 of that Policy. Each are addressed in turn below.
Objectives	The building identification signage is compatible with the desired amenity and visual character of an area. It will have high quality design and finish that integrates with the building façade.

	The community information sign simply replaces existing community information sign in the same location with one that has digital and LED lettering for ease of school operations.
Character of the Area	The signage reflects the character of the school and is similar in nature to identification and community information signage used at other schools on building elevations for way finding and identification purposes. In this instance, the identification sign is intended to indicate the main entrance into the school.
Special Areas	The proposal does not adjoin any special areas.
Views & Vistas	Refer above response. The identification sign is affixed to a wall and will not affect the skyline or vistas.
Streetscape, Setting or Landscape	The identification sign is affixed to the proposed wall to Binalong Road frontage and does not protrude above it. The community information sign simply replaces existing community information sign in the same location.
Site & Building	Refer above response.
Associated devices and logos with advertisements and advertising structures	Details of any safety devices and logos will be developed at a later stage.
Illumination	Illumination details will be developed at a later stage. Any illumination will be designed to avoid unacceptable glare or light spill.
Safety	The proposed signage zones will not reduce road, pedestrian or cyclist safety.
The above analysis provides that the proposed building identification signage zone and community information sign are consistent with the objectives and assessment criteria of SEPP 64.	
State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 (Vegetation SEPP)	The State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 (SEPP Vegetation) seeks to protect and preserve the biodiversity values and amenity of trees and other vegetation in non-rural areas of NSW. The Vegetation SEPP provides for the removal of vegetation in non-rural areas, as well as matters for consideration in the assessment to remove vegetation. It applies to land within the Parramatta LGA and land zoned R2 Low Density Residential, and therefore applies to the site. An Arboricultural Impact Assessment has been prepared at Appendix I.
State Environmental Planning Policy (Sydney Region Growth Centres) 2006	The Growth Centres SEPP does not currently apply to the site, however an amendment was proposed that would identify Greater Parramatta is as a Priority Growth Area under the SEPP and therefore the site location would fall within the scope of the SEPP. This amendment is still being considered and a Draft wording has not yet been exhibited by the Department. However, it is understood that works proposed within the public domain would require assessment against this SEPP amendment. Given there are no works proposed within the public domain as part of this application, no assessment is required. Subject to further information being provided by DPIE, a further assessment could be completed as part of the Response to Submissions.
State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)	The ISEPP provides the legislative planning framework for infrastructure and the provision of services across NSW. Clause 104 and Schedule 3 of ISEPP trigger referral to the Roads and Maritime Services (former – now Transport for NSW) as the proposal is considered as: “Any other purpose” “with access to a road (generally)” with size or capacity of “200 or motor vehicles”. Accordingly, Transport for NSW was consulted during the preparation of the EIS.
State Environmental Planning Policy No.55 – Remediation of Land	Approval is sought for Category 1 site remediation works. SEPP 55 requires the consent authority to consider whether the subject land of any development application is contaminated and can be made suitable for the proposed use. The Supplementary Contamination Assessment conducted by Douglas Partners, appended at **Appendix S,** identified that asbestos was present within fill in the northern portion of the site. The assessment identified measures to be taken to mitigate impacts from the site contamination. Mitigation measures will take place in order to reduce contamination risks through a Remedial Action Plan (RAP). A RAP was prepared by Douglas Partners and is appended at **Appendix P**. The RAP will help mitigate

	potential contamination risks associated with the identified asbestos and infill materials. Consistent with Clause 17 of the SEPP a copy of the asbestos management plan prepared for works will be provided to the Department of Planning, Industry and Environment as the relevant consent authority prior to the commencement of works.
Sydney Regional Environmental Plan (SREP) – (Sydney Harbour Catchment) 2005	The Sydney Regional Environmental Plan 2005 (SREP) aims to ensure that the catchment areas, foreshores and waterways of Sydney Harbour are recognized, protected, enhanced and maintained. The site falls within the Sydney Harbour Catchment area however it does not fall within the Foreshores and Waterways area. Relevant to the proposal an assessment was completed to determine the groundwater impacts as well as whether acid sulphates were present on the site. The proposal is not expected to affect groundwater, nor it does the site contain any acid sulphates, as discussed in Sections 6.10 and 6.11. Implementation of the Waste Management Plans at **Appendix AB** and **Appendix AC** and Stormwater Management Plan appended at **Appendix W** will ensure impacts of the development downstream onto the Sydney Harbour catchment are minimised.
Draft SEPP - Environment	The Draft SEPP (Environment) is a proposed new SEPP that will form part of the broader land use planning framework in NSW. The proposed new SEPP aims to deliver a planning framework that protects the four catchments, maintaining: – Water quality and flows within watercourses; – Native plants, animals, habitats and ecosystems; – Recreational, scenic and environmental amenity. The proposal aligns with the aims and objectives of the Draft SEPP (Environment).

5.5 Parramatta Local Environmental Plan 2011

The proposal is not bound by the planning controls in the LEP 2011, given Clause 42 in the Education and Child care Facilities SEPP stipulates that development consent may be granted for development that is SSD, even where the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted.

Notwithstanding, an assessment against the Parramatta LEP is provided below.

Table 15 Parramatta Local Environmental Plan 2011

Provision	Consistency	Response
2.3 Land use zoning *Objectives* *The objectives of the R2 zone are:* – *To provide for the housing needs of the community within a low density residential environment.* – *To enable other land uses that provide facilities or services to meet the day to day needs of residents.* – *To ensure that non-residential land uses are located in a context and setting that minimises impacts on the amenity of a low density residential environment.* – *To allow for a range of community facilities to be provided to serve the needs of residents, workers and visitors in residential neighbourhoods.*	Yes	Development for the purpose of a school on the site is a permitted use in the *R2 Low Density Residential* zone. The proposed development is therefore permitted with consent. The proposal is consistent with these objectives as: – It provides educational infrastructure to meet the everyday service needs of residents – The minor impact to the adjoining residential land uses will be mitigated by appropriate measures. – It provides community facilities to serve the needs of residents.
4.3 Height of buildings	N/A - owing to Clause 42 of ESEPP	The site is subject to a 9m height limit pursuant to Clause 4.3 of the PLEP 2011.The proposed height is 14m. Refer further discussion on the proposed building height, along with

		associated built form and scale matters is discussed at **Section 3.4** of this report.
4.4. Floor space ratio	N/A - owing to Clause 42 of ESEPP	The maximum Floor Space Ratio (FSR) control for the site under Parramatta LEP 2011 is 0.5:1. All land surrounding also has an FSR control of 0.5:1. The proposed FSR is 0.15:1.
5.10 Heritage conservation *Objectives* *a) to conserve the environmental heritage of Parramatta,* *b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views,* *c) to conserve archaeological sites,* d) *to conserve Aboriginal objects and Aboriginal places of heritage significance.*	N/A	There are no heritage impacts arising from the proposed works. The site is not identified as, nor within proximity to, local or state (or draft) heritage items. The site is not located within, nor within proximity to, any heritage conservation areas. No known Aboriginal archaeological sites or objects, or Aboriginal places of significance are located within the site boundary and therefore the proposed development will have no impact on Aboriginal heritage.
6.1 Acid Sulfate Soils *Objective* *To ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.*	N/A	The site was tested and was deemed to not contain any Acid Sulfate Soils.

5.6 Draft Parramatta Local Environmental Plan 2020

The Draft Parramatta Local Environmental Plan 2020 (Harmonisation LEP) (Draft Harmonisation LEP) will replace the existing LEPs that apply within the local government area, amalgamating their controls into one consolidated document.

A schedule of changes to planning controls are proposed as part of the project that relate to land zonings and permissible uses, height of buildings, floor space ratio, biodiversity and riparian lands, heritage items, location of key sites and minimum permissible lot sizes. No changes are proposed to the controls that apply to the site, with the exception of minimum permissible lot sizes. Proposed minimum permissible lot sizes have been decreased for the site, however this will not affect the proposal given no subdivision is proposed.

The existing Parramatta is still in force at the time of writing and it is anticipated it will not be superseded by the Draft Harmonisation LEP until late 2021.

5.7 Parramatta Development Control Plan 2011

The Parramatta DCP 2011 provides guidance on provisions for design and development controls that should be considered when developing the design for the school.

However, Clause 11 of the SRD SEPP states that development control plans do not apply to state significant development.

Notwithstanding, the proposal has been assessed against the key relevant controls of the Parramatta DCP 2011 in **Table 16** below.

Table 16 Consistency with Parramatta DCP 2011

Provision	Objectives	Complies	Comment
Environmental Amenity			
3.1.1. Height	Prescribes height limits (in storeys) for specified land uses.	N/A	There is no prescribe height limit for schools under the DCP.
3.2.1 Building Form and Massing	– To ensure buildings are compatible in form relative to the spatial characteristics of the local area. – To ensure building mass and form reinforces, complements and enhances the visual character of the street. – To ensure the distribution of building height and mass preserves and enhances neighbourhood amenity, site characteristics and environmental constraints. – To ensure that where changes in building scale, mass and/or height is proposed, it occurs in a manner that is sensitive to amenity issues of surrounding or nearby development. – To ensure development that achieves the maximum floor space ratio permitted on any site does not inhibit any other Objective, Performance Criteria, Design Principle or Design Controls contained within this DCP.	Yes	The proposal has been designed to respond to the school location's context. Please refer further discussion on this item at Section 6 of this report.
3.2.2 Building facades and articulation	– To ensure the appearance of buildings complement and enhance neighbourhood and streetscape character. – To encourage contemporary designs which integrate with the appearance of the streetscape. – To provide attractive building facades which establish identity and contribute to the streetscape.	Yes	The choice of materials will complement the existing streetscape given they were chosen to integrate well with the existing school buildings. The chosen materiality is discussed in more detail in Section 3.6.
3.2.3. Roof Design	– To encourage roof forms that provide continuity and consistent character in the streetscape. – To encourage roof designs that integrate with the building composition and form.	Yes	The design proposes a single roof plane stretched across the courtyard and both wings of the building providing shelter and protection for the outdoor spaces. A void is created in the centre of the roof to facilitate the provision of landscaping in the

				courtyard and to let natural light into the centre of the space creating a functional and practical external gathering space in the heart of the building. Refer to Architectural Design Statement at **Appendix F**.
3.2.4 Energy Efficient Design	–	To promote sustainable development which uses energy efficiently and minimizes nonrenewable energy usage in the construction and use of buildings.	Yes	The ESD report provided at **Appendix Y** confirms the design should be granted a 5 Star Green Star Rating from the Green Building Council of Australia.
	–	To ensure that development contributes positively to an overall reduction in energy consumption and greenhouse gas emissions		
3.2.5 Streetscape	–	To ensure new development responds to, reinforces and sensitively relates to the spatial characteristics of the existing urban environment.	Yes	The development will create a new street address to Binalong Road and create an improved street presence for the school. One of the guiding design principles was to improve the legibility of the school site. This is achieved through the continuous link from entrance on Binalong Road to the open assembly area in front of the existing buildings. Refer to Architectural Design Statement at **Appendix F**.
	–	To increase the legibility of streetscapes and urban spaces so that the inter-relationship between development, landscape and open space is visually coherent and harmonious.		
	–	To maximise opportunities for buildings to define the public domain.		
	–	To encourage attractive street frontages and improve pedestrian amenity		
3.3.1 Landscaping	–	To conserve significant natural features of the site and contribute to effective management of biodiversity.	Yes	The landscaping and external areas create a series of functional spaces along the central spine of the site. The removal of vegetation has been limited to 5 trees and an additional 54 trees will be planted. Refer to the Landscape Strategy and Plans at **Appendix G-H**.
	–	To retain and provide for mature vegetation, particularly large and medium sized trees.		
	–	To provide continuous vegetation corridors.		
	–	To encourage the planting of indigenous, native and low water consumption plants and trees.		
	–	To enhance the existing streetscape and promote a scale and density of planting that softens the visual impact of buildings.		
	–	To provide privacy and amenity.		
	–	To promote energy efficiency by enhancing both solar access and shade.		
	–	To provide for the infiltration of water to the water table, minimise run-off and assist with stormwater management.		

	– To ensure developments make an equitable contribution to the landscape setting of the locality		
3.3.3 Visual and Acoustic Privacy	– To ensure that development does not cause unreasonable overlooking of habitable rooms and principal private open spaces of dwellings. – To ensure that visual privacy is provided both within a development and between a development and its neighbours. – To ensure that the siting and design of development minimises the impacts of noise transmission between properties.	Yes	The location of the windows to the northern facade of the building include aluminum hoods to limit views into the neighbouring properties to the north. Refer to Architectural Design Report at **Appendix F**.
3.3.4 Acoustic Amenity	– To ensure that the siting and design of buildings minimizes noise impacts from abutting busy roads, rail corridors and other noise-generating land uses. – To ensure that commercial or industrial development does not unreasonably diminish the amenity of nearby residential uses from noise intrusion.	Yes	An assessment of noise and vibration impacts was conducted at **Appendix X**. The report recommends external materials and other mitigation measures to ensure a high level of internal acoustic amenity during operation of the school. The report also made recommendation to reduce noise impacts during construction.
3.3.5 Solar access and cross ventilation	– To provide thermal comfort for occupants. – To ensure that development does not unreasonably diminish sunlight to neighbouring properties and within the development site. – To ensure that sunlight access is provided to private open space and habitable rooms to improve amenity and energy efficiency. – To ensure sufficient volumes of fresh air circulate through buildings to create a comfortable indoor environment and to optimize cross ventilation. – To ensure that sunlight access is provided to public open space.	Yes	The siting of the proposed development at the northern end of the Binalong Road frontage minimizes the solar impact of the development on neighbouring properties. There is no overshadowing to residential homes. Binalong Road itself will be overshadowed for a portion of the day, in particular during winter. Refer to the Architectural Design Statement at **Appendix F**.
3.3.6.1 Stormwater drainage	– To minimise the quantity of stormwater run-off including changes in flow rate and duration by disconnecting impervious areas. – To protect and enhance existing natural or constructed drainage networks including channel bed and banks by controlling the magnitude and duration of erosive flows. – To ensure that downstream flora and fauna are protected from stormwater impacts during and post construction.	Yes	A Stormwater Management Plan has been completed as part of the application and can found at **Appendix W**.

	– To minimise surcharge from the existing drainage systems – To minimise and control nuisance flooding and to provide for the safe passage of less frequent floods. – To ensure that on-site stormwater management measures are operated and maintained in accordance with design specifications.		
3.3.6.2 Water Efficiency	– To reduce consumption of potable water. – To harvest rainwater and urban stormwater turnoff for use. – To reduce wastewater discharge. – To capture, treat and reuse wastewater where appropriate.	Yes	Water efficiency measures are being undertaken to achieve the 5 Green Star Rating for the development. The ESD report at **Appendix Y** details these.
3.3.7 Waste Management	– To reduce the quantity of waste and encourage the recycling of waste generated by demolition and the construction of new developments. – To encourage building design that will minimise waste generation over the lifetime of the building. – To ensure that the disposal of waste generated by a building's occupants over its lifetime is managed appropriately, efficiently and provides for maximum recovery, recycle or reuse. – To ensure that waste storage facilities are located appropriately and do not impact negatively on the streetscape. – To ensure that waste can be effectively collected and managed. – To assist in achieving Federal and State Government waste minimisation and resource recovery (landfill diversion) targets. – To minimise the overall environmental impacts of waste, in line with the principles of Ecologically Sustainable Development (ESD)	Yes	An Operational Waste Management Plan was prepared and is at **Appendix AB.** A Construction Waste Management Plan was prepared and is at **Appendix AC.**
Social Amenity			
3.4.1 Culture and Public art	– To recognize and build on cultural identity and diversity in the design of development by creating 'places' through the integration of art and interpretive material into the fabric of the city in ways to reflect, respond and give meaning to the city's unique environment, history and culturally diverse society.	Refer comment	A mural or interpretive signage is proposed to represent Connection to Country. See Architectural Design Report at **Appendix F**.

	– To promote development that is unique to the City and that reflects links to social or cultural sub-groups in the community or links with the settlement and indigenous history of Parramatta and to reflect and engage with community aspirations, create discussion, interest and awareness, and foster relationships between people and place. – To promote the inclusion and integration of site specific public artworks within developments which are accessible to the public, make a positive contribution to the urban environment and add to the cultural of the City. This will include identifying sites for public artworks that are both large and pedestrian scaled. – To facilitate and encourage artists to work in multidisciplinary teams in the development of projects that shape and redesign the City's built environment and public domain.		
3.4.2 Access for people with disabilities	– To ensure that all people within the City are able to: – participate in community life; and – access all public spaces and premises and utilise all goods, services and facilities provided in these spaces and premises. – To ensure that applicants are aware that they have obligations under the Disability Discrimination Act, 1992.	Yes	The Access Report (**Appendix V**) identified access requirements as required under the relevant legislation and standards will be met to enable equitable access to/from the school.
3.4.3 Amenities in Buildings Available to the Public	– To encourage a high standard of women's facilities, and amenities for parents in both women's and men's toilets in buildings available to the public.	Yes	The project will create a high level of amenity on the site. Refer to the Architectural Design Statement at **Appendix F**.
3.4.4 Safety and Security	– To reduce crime risk and minimise opportunities for crime. – To increase and contribute to the safety and perception of safety in public and semipublic spaces. – To encourage the consideration and application of crime prevention principles when designing and siting buildings and spaces. – To encourage dwelling layouts that facilitate safety and encourage interaction and recognition between residents.	Yes	The Architectural Design Statement provides a CPTED assessment of the proposal at **Appendix F.**
Heritage			

3.5.1 General	– Appropriate management of heritage in the Parramatta LGA. – Retention and reinforcement of the attributes that contribute to the heritage significance of items, areas and their settings. – Maintenance and improvement to residential amenity and open space areas. – Development that is compatible with the significance and character of the area	N/A	No heritage impacts are expected to result from the proposal.
Movement and Circulation			
3.6.1 Sustainable Transport	– To support the reduction of car trips and encourage the use of sustainable transport.	Yes	The Green Travel Plan provided at **Appendix L** outlines the measures to be taken to encourage the use of sustainable transport modes and reduce car dependency.
3.6.2 Parking and Vehicular Access	– To ensure that the location and design of driveways, parking spaces and other areas used for the movement of motor vehicles are efficient, safe, convenient and are integrated into the design of the development to minimise their visual impact. – To ensure that adequate off-street parking is provided to serve the needs of development.	Yes	Parking and vehicular access is outlined in the Transport and Accessibility Impact Assessment at **Appendix L.**
3.6.3 Accessibility and Connectivity	– To improve pedestrian access and connectivity between housing, open space networks, community facilities, public transport, local activity centres and schools. – To encourage pedestrian through-site links that are designed to promote safety and amenity.	Yes	The Access Report (**Appendix V**) identified access requirements as required under the relevant legislation and standards will be met to enable equitable access to/from the school.

5.8 Development Contributions

Local infrastructure contributions are legislated under the provisions of Section 7.12 of the EP&A Act and authorise City of Parramatta Council to levy a monetary contribution which is used towards the provision of public amenities and services. The site is covered by City of Parramatta Council Section 94A Development Contributions Plan (Amendment No. 5) and the proposed development is not exempt from requirement for payment of contributions under the plan.

The NSW Department of Education does not agree to a condition of consent requiring it to pay developer contributions under section 7.11 or 7.12 of the Environmental Planning and Assessment Act 1979. Planning Circular D6 represents the consistently held view that the NSW Department of Education, as a Crown authority, provides critical community infrastructure and that to levy any developer contribution on provision of public education facilities increases the cost of such infrastructure for all taxpayers in the State.

6. Environmental Assessment

This section assesses and responds to the matters for consideration set out in the SEARs. The mitigation measures at **Section 7** complement the findings of this section.

6.1 Built Form and Urban Design

The project brief was for a building of a scale that could accommodate 14 learning spaces and new core facilities to meet the needs of a future student population of 1,320, while also responding sensitively to the architectural character of the existing buildings on site and the prevailing residential character of the adjoining lands.

The site levels slope across the site diagonally meaning an innovative design approach was required for a building with a Binalong Road address where there is a 4-metre level change to the existing buildings at the school. Furthermore, the school is within a predominantly low-density residential setting.

Fulton Trotter Architects have produced a design that:

- Modernly adapts the mid-century doughnut typology of the existing buildings, opening it up by providing a dual wing building with a central pedestrian axis and central courtyard;
- Connects the new and old buildings legibly through landscape and wayfinding;
- Includes ramping arrangements that make the campus accessible from Binalong Road for those with access requirements;
- Incorporates materials that are energy efficient, durable and high quality;
- Improves the street presence and provides a main entrance to the school;
- Can accommodate sufficient facilities to meet the needs of the future student population; and
- Allows for a good quantity of open space to be retained.

The proposal, as demonstrated in the architectural plans, view analysis and renders is found to have a satisfactory impact on the immediate locality of Toongabbie. A more detailed analysis of the built form and urban design outcomes is provided at **Section 3** above, and in the Architectural Design Statement and Architectural plans prepared by Fulton Trotter Architects at **Appendices E and F**.

6.2 Heritage

<u>European Heritage</u>

The site is not identified as, nor located within proximity to, any local or state (or draft) heritage items. Further, the site is not located within, nor within proximity to, any Heritage Conservation Area. The closest local heritage item within the locality is ‘Joseph Knox College’ (I455), currently operating as a kindergarten, located approximately 80m from the southern boundary of the site and approximately 180m from the location of the proposed development.

It is noted that the SEARs did not require the preparation of any detailed heritage assessment and given the significant distance to the nearest listed heritage item, that the proposed development is not considered to result in any unreasonable impact to European heritage.

Aboriginal Heritage

An Aboriginal Cultural Heritage Report Assessment Report (ACHAR) has been prepared by Tocomwall and is provided at **Appendix L**.

In undertaking this assessment, it has been determined that there are no known Aboriginal sites, objects or Potential Archaeological Deposits (PADs) located within the study area or proposed development footprint. Further, that the soils in the study area have been significantly disturbed as a result of land clearing, including historical farming uses, as well as from broader urban development within the locality, including the construction of the Pendle Hill High School in 1965, with associated sports and playing fields.

This report provides that the study area is considered to have low to nil archaeological potential as a result of previous disturbances, with no further archaeological investigations considered necessary. Notwithstanding, standard unexpected finds protocols are recommended, including:

- If any unanticipated Aboriginal archaeological objects, sites or PADs are identified during the construction program within the impact footprints, works should cease immediately, and notify Heritage NSW;
- If any human remains are identified during the earthworks within the impact footprints works, should cease immediately and the Police and NSW Heritage should be contacted; and
- Consultation with the registered Aboriginal stakeholders should continue, and an opportunity will be provided for their review and comment on the results and recommendations of this report. These comments will be included in the final format of this report.

It is anticipated these will be implemented as conditions of consent. On the basis of the above, the proposed development is not considered to result in any unreasonable impact to Aboriginal heritage.

6.3 Play space

Having the adequate play space and open space at school, is beneficial to students, the environment, and local community. Recognizing the importance of play space, NSW Department of Education guidelines provide that a minimum of 10m^2 usable onsite play space per student be provided at each school.

Pendle Hill High School currently has approximately 36.5m^2 of play space per student, exceeding minimum play space requirements. Whilst the proposed development will decrease the play space per child, the proposal will maintain more than the recommended standard of play space, at 28.2m^2 per child, accounting for the proposed increased student capacity based on forecast enrollments for 2023.

Under a scenario where the site will be further developed to include future works and student enrolment numbers will have increased under the Preferred Master Plan (option 4 above), the play space per child would be approximately 17m^2. This is shown indicatively in **Figure 41** below.

Refer to a breakdown of play space across the site within the Architectural Design Report at **Appendix F**.

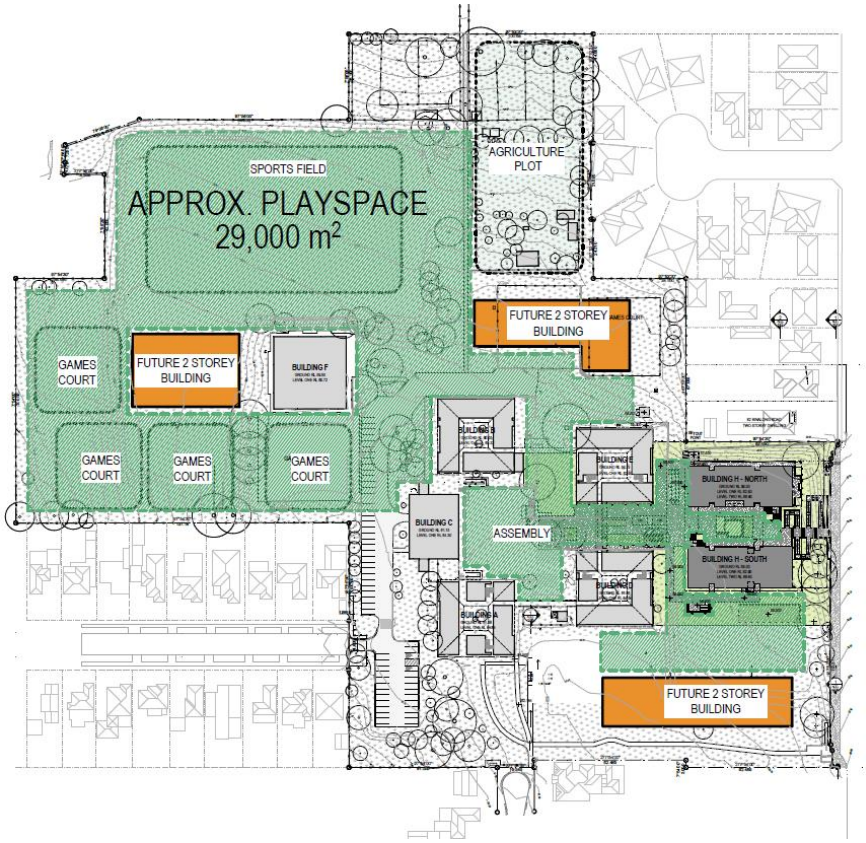


Figure 41 Play space on site under a potential future scenario
Source: Fulton Trotter Architects

6.4 CPTED Principles

A Crime Prevention through Environmental Design (CPTED) Assessment has been included in the Architectural Design Statement, prepared by Trotter Fuller Architects at **Appendix F.** The Design Statement outlines the design elements and CPTED principles included in this proposal that will deter unsocial and criminal behavior from the site.

Please refer to **Table 17** below that highlights the proposal's consistency with CPTED principles.

Table 17 CPTED Principles

Principle	Proposed development
Surveillance	The entrance points are appropriately fenced to allow them to be closed off when they are not in use and are landscaped in a way that avoids creating hidden areas. Further, the play spaces and student spaces created as part of this project have been designed to allow for good passive and active supervision at all times – particularly during the school's operating hours.
Access Control	The new main site entrance that is created as part of this work is designed to allow for a free flow of students and parents at pick up and drop off time. However, during school operating hours the entrance is closed off and visitors are directed to the Administration Reception area to ensure that they are checked and signed-in before they are given access to the school. The facilities have been designed in a way as to allow them to be easily locked down in a case where there was a security incident.
Territorial reinforcement	The proposal creates a clear distinction between public and private property. Wayfinding signage and visual cues have been incorporated to reinforce this.

Space Management/ Maintenance	Maintenance is closely related to principle, territorial reinforcement. Regular maintenance of school grounds discourages negative social behavior and is a matter of safety and pride for Pendle Hill HS. NSW Department of Education has a number of programs in place for the ongoing maintenance of their facilities and this development would fall under this program.

6.5 Environmental Amenity

Solar access and overshadowing

The siting and form of the proposed development has been designed to provide maximum solar access to all existing and proposed school buildings and areas of open space across the site. In addition, the proposed new building has been designed to facilitate maximum solar access and natural light within classrooms.

By virtue of the orientation of the site and siting of the proposed building, the proposal will not result in any overshadowing impacts to nearby residential properties as detailed within the shadow diagrams at **Appendix F**.

Visual Privacy

Existing buildings are generally located centrally within the site, with significant setbacks to nearby residential properties and do not present any direct visual privacy impacts to these dwellings. However, further to matters raised during pre-application consultation with Council, it is acknowledged that the proposed building is both larger in scale and within close proximity to nearby residential development along Binalong Road to the north east of the site.

In particular, potential visual privacy impacts to dwellings numbered (however not limited to) 82 through 88 Binalong Road have been considered by the design team to ensure appropriate mitigation measures are incorporated within the building façade to prevent any unreasonable visual privacy impact to these properties.

In response, fixed screening (alumimium hoods) have been provided to windows to the northern façade to limit views into the neighbouring properties. This screening is to be complemented by additional landscaping along the northern boundary of the site to further limit any views into the neighbouring properties. **Figure 42** demonstrates the strategy and further details contained within the Architectural Design Report at **Appendix F**.

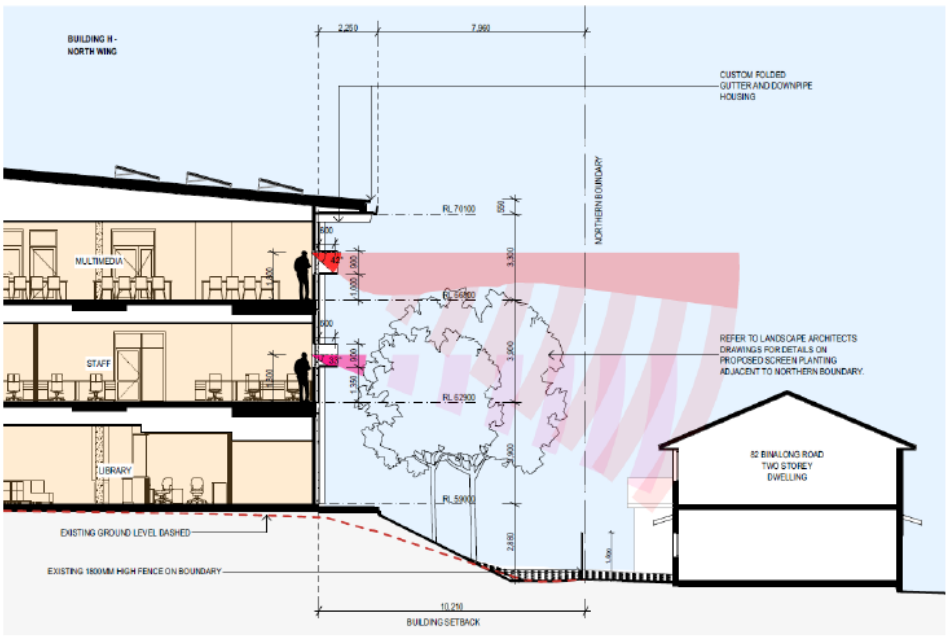


Figure 42 Interface study for 82 Binalong Road
Source: Fulton Trotter Architects

View Loss

The site nor surroundings do not benefit from any local, district or significant views. As such, the proposal is not considered to result in any view loss.

Visual Impact

Notwithstanding the above, in response to items 3 and 5 of the SEARs, a View Analysis has been prepared by Fulton Trotter Architects and is contained within the Architectural Design Report at Appendix F to this EIS. The View Analysis has been prepared in response to the SEARs items 3 and 5, which require:

- At (3): *"… 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*"; and
- At (5): "*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*"; and
- "… a view analysis of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development".

Accordingly, the View Analysis has identified key existing public viewpoints around the school and assessed the visibility of the proposed development. The visual catchment of the site extends to the north, south, east and west of the site, except where obscured by existing buildings, topography or vegetation.

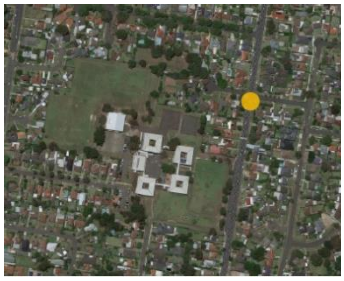
The View Analysis has considered a series of public and private views of the proposed development in accordance with the SEARs and the statutory planning framework. Categories of views have been selected that are representative of open spaces, key streets and surrounding buildings, including the adjoining aged care facility and residential development to the north.

Six (6) viewpoints have been selected detailed below.

- Viewpoint 1: View from Binalong Road at the intersection of Ford Street, facing south;
- Viewpoint 2: View from Binalong Road at the southern boundary of the site, facing north;
- Viewpoint 3: View from the existing school entrance, located within Knox Street, facing north east;
- Viewpoint 4: View from the existing school entrance, located within Cornock Avenue, facing north east;
- Viewpoint 5: View from Kim Place, facing south east; and
- Viewpoint 6: View from the corner of Chalmers Crescent and Lennox Street, facing north west.

View 1 – Binalong Road North – From Ford Street

Location



View

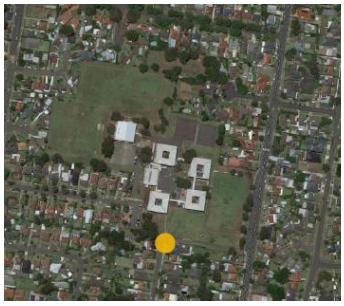
View 2 – Binalong Road South

Location

View

View 3 – Knox Street Entrance

Location



View

View 4 – Cornock Avenue Entrance

Location

View

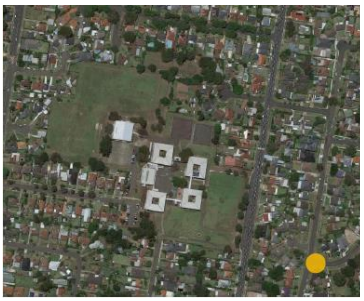
View 5 – End of Kim Place

Location

View

View 6 – Corner of Chalmers Crescent and Lennox Street

Location



View

Figure 43 View Analysis
Source: Fulton Trotter Architects

An overview of the impact of the proposed redevelopment on the selected viewpoints as determined by the view analysis (**Appendix F**) is summarized in **Table 18** below.

Table 18 Summary of view impact

Description	Type of Location	Sensitivity	Magnitude	Impact Rating
Viewpoint 1: View from Binalong Road at the intersection of Ford Street, facing south.	Public domain	Low	Low	Low
Viewpoint 2: View from Binalong Road at the southern boundary of the site, facing north.	Public domain	Low	Low	Low
Viewpoint 3: View from the existing school entrance, located within Knox Street, facing north east.	Public domain	Low	Low	Low

Viewpoint 4: View from the existing school entrance, located within Cornock Avenue, facing north east.	Public domain	Low	Low	Low
Viewpoint 5: View from Kim Place, facing south east.	Public domain	Low	Low	Low
Viewpoint 6: View from the corner of Chalmers Crescent and Lennox Street, facing north est.	Public domain	Low	Low	Low

Due to existing surrounding development, vegetation, and the topography of the site, the proposed development will generally have a low impact from all vantage points. It is therefore the professional opinion of the authors of the View Analysis that the modest scale, character and visual catchment of the development are such that they would not constitute reasons to hinder planning approval on visual impact grounds. Refer to the View Analysis prepared by Fulton Trotter Architects at **Appendix F**.

Wind Impacts

The development contains a three storey building with significant setbacks to other existing buildings at the site. Given the low-density nature of surrounding development, it is not considered that this development will result in any unreasonable wind impacts within the locality.

6.6 Transport and Accessibility

A Traffic and Accessibility Impact Assessment has been prepared by TTW and is appended at **Appendix K**. The assessment includes details of the surrounding road network and traffic movements, including an analysis of the impacts associated with this proposal.

Existing Situation

Travel mode survey

A travel mode usage questionnaire was undertaken by students and staff at Pendle Hill High School. The results are set out at **Tables 18 and 19** below.

Table 19 Travel mode for students travelling to and from school
Source: Traffic and Accessibility Impact Assessment prepared by TTW

Mode Share	Percentages
Bus only	*19.6%*
Walk	*26.8%*
Car	*47.7%*
- Dropped off	*41.2%*
- Drive and park	*6.6%*
Train	*5.9%*
Bicycle	*0%*

Table 20 Travel mode – Staff travelling to and from school
Source: Traffic and Accessibility Impact Assessment prepared by TTW

Mode Share	Percentages
Bus only	0%
Walk	5%
Car	95%
- Dropped off	*2.5%*
- Drive and park	*92.5%*
Train	0%
Bicycle	0%

It is noted that the peak arrival time of students mostly coincides with the network AM peak hour of 7:45am – 8:45pm. However, in the afternoon, the peak departure period does generally not overlap with the network PM peak hour of 2:45pm – 3:45pm.

Public transport

A review of the available public transport services operating within the vicinity of the school indicates that bus is the most easily accessible, with numerous services operating along Binalong Road, two bus stops on Bulli Road and three bus stops on Bungaree Road, providing connectivity to Parramatta, Blacktown and Wentworthville.

Pendle Hill High School is also serviced by five school bus services, two which service the morning peak and three that operate in the afternoon. However, it is noted the public bus routes are preferred as they are more reliable than the school bus services.

The two nearest train stations to the school are Toongabbie Train Station, 1.7km away and Pendle Hill Train Station, 1.3km away.

Active transport infrastructure

There are on-road cycling paths on Binalong Road, Bulli Road and Bungaree Road providing connection to Toongabbie, Westmead and Wentworthville however there are currently no off-road cycle paths. Feedback from the travel survey indicated that the main reason children are not choosing to cycle to school is safety.

A review of the pedestrian infrastructure around the school indicates that most of the approaches have good access in the form of footpaths on both sides of the road and pedestrian crossings, both raised and at-grade zebra crossings.

There are a couple of missing links; connecting into the school from the west from Knox Street where there is no footpath along the western side of the road and along sections of Holden Street to the north. To resolve this, SINSW has worked with Transport for NSW to identify four locations for pedestrian upgrades.

Car pick-up and drop-off

Previously the drop-off and pick-up was from the Cornock Avenue car park however due to safety concerns the school principal advised parents to use alternative locations. School pick-up and drop-off occurs informally on Cornock Avenue, Knox Street and Bonalong Road.

Figure 44 Existing pick up and drop off locations
Source: Transport Impact Assessment prepared by TTW

On-site parking

A total of 67 car spaces are provided within the Pendle Hill High School grounds, which are reserved for school staff. The weekday average occupancy rate was recorded at 66% (23 vacant spaces) with the lowest availability on any observed day being 15 car spaces.

Table 21 On-site parking occupancy rates
Source: Transport Impact Assessment prepared by TTW

Date	Day	Occupied	Vacant
8/12/2020	Tuesday	47	20
3/08/2020	Monday	47	20
15/06/2020	Monday	45	22
12/09/2019	Thursday	46	21
8/04/2019	Monday	43	24
11/09/2018	Tuesday	52	15
29/05/2018	Tuesday	46	21
22/08/2017	Tuesday	34	33
3/11/2016	Thursday	38	29
5/05/2016	Thursday	41	26
6/10/2015	Tuesday	29	38
6/05/2015	Wednesday	46	21
27/06/2014	Friday	47	20
Weekday average occupancy		**44**	**23**
Weekday minimum occupancy		34	33
Weekday median occupancy		46	21
Weekday maximum occupancy		52	15

On-street car parking

The majority of the on-street parking adjoining the school is unrestricted.

Surveys of on-street parking around the site (in the assessed zone of Cornock Avenue, Knox Street, and Binalong Road between Burrabogee Road and to Bora Place / Ford Street) shows minimum weekday availability of 76 spaces, with an average of 87 spaces and a maximum availability of 100 spaces.

Traffic volumes on the road network

Surveys were conducted for existing traffic volumes for four intersections adjoining the site. Based on the total traffic volumes for each hourly time interval at each intersection, the overall network peak hours have been determined by calculating the total traffic volumes across the network. The network peak hours are outlined below:

- Network AM School Peak: 7:45am - 8:45am; and
- Network PM School Peak: 3pm – 4pm.

The road network peak times coincide with the school's start and finish times.

SIDRA analysis was undertaken for the four intersections adjoining the school based on existing situation, to understand their performance. The results are set out in **Table 22** below.

Table 22 SIDRA Results for existing scenario
Source: Transport and Accessibility Impact Assessment, TTW

Intersection	Peak period	Level of service	Highest degree of saturation (w/c)	Average delay (s)	95% Back of Queue Length (m)
Binalong Road-Burrabogee Road	AM	A	0.28	5.9	13
	PM	A	0.259	5.1	11.4
Bungaree Road-Burrabogee Road	AM	A	0.25	5.1	10.5
	PM	A	0.201	5.3	8.3
Cornock Avenue-Bungaree Road	AM	A	0.156	1.8	0.4
	PM	A	0.126	1.4	0.2

Proposed Development

Car parking

The car park will be adjusted to accommodate 57 on-site spaces. Adjustments are required to make the size of existing car spaces compliant and the works will include the creation of two additional accessible parking spaces. The changes represents an overall reduction in parking of 10 spaces. No groundworks are required as the works are limited to changes to linemarking.

The resulting ratio of staff members to parking spaces is 0.55 spaces. A car parking rate of 0.5 spaces per staff member is applied in multiple surrounding LGAs including Ryde, Auburn, and Holroyd however no rate is specified in the Parramatta DCP.

A lower provision of parking is consistent with the TfNSW Road User Space Allocation Policy. Further, the proposed strategy assists in moving away from the traditional “predict and provide” methodology towards a more beneficial “decide and provide” methodology for sustainable transport practices. Operational strategies are proposed to be employed to encourage sustainable travel initiatives. Refer to discussion on the Green Travel Plan below for details and the detailed Green Travel Plan at **Appendix K**.

Trip generation

The trip generation for the proposed development, accounting for existing mode share, is set out at **Table 23** below.

Table 23 Trip Generation Summary – Students and Staff
Source: Transport and Accessibility Impact Assessment prepared by TTW

Mode	Type of trip	Additional trips generated per day
Private vehicle	Student	450
	Staff	55
Bus	Student	190
	Staff	0
Train	Student	57
	Staff	0
Bicycle	Student	0*
	Staff	0
Walk	Student	255
	Staff	5

*Note: Estimates from the journey to work data indicate 1% of students and 0% of workers would ride a bicycle to the school. However, the travel mode survey revealed that not one student or staff member utilised this travel mode. This is not considered an accurate representation of the future demand and bicycle facilities are still to be included in the design.

Traffic generation on road network

As noted in **Table 23**, the proposed development will likely increase the traffic generation by 535 trips in the morning peak and 316 trips in the afternoon peak hours. This, in combination with acceptable results of the existing traffic situation, it is considered that the network will still be able to operate at an appropriate level of service with the increased student and staff numbers. The worst condition at south leg of Binalong Road with a 27.4m queue length (95th percentile) and at the east leg of Burrabogee Road related to a 14.6-second average delay (resulting in Level of Service 'B') which both are still an acceptable level of service.

Car pick-up and drop-off

A pick-up/drop-off zone strategy has been developed to distribute the pick-up/drop-off function between seven locations:

- Binalong Road northbound – primary kiss & ride;
- Binalong Road southbound - North of pedestrian crossing;
- Burrabogee Road westbound - East of new pedestrian crossing;
- Burrabogee Road eastbound - West of Knox Street;
- Bungaree Road northbound - South of pedestrian crossing;
- Bungaree Road southbound - South of Cornock Avenue; and
- Favell Street westbound - Outside the existing pedestrian entry.

Distributing the kiss and ride function between these seven locations will improve access to the school by vehicle, reduce congestion and improve safety outcomes.

Upgrades to pedestrian access

Four new pedestrian crossing are proposed as part of this application to improve pedestrian access into the school. The four locations were selected following feedback provided in the Parramatta Transport Working Group, and based on forecasted pedestrian levels. The four locations are:

- On Binalong Road north of the site;
- On Binalong Road south of the site;
- Burrabogee Road at Knox Street; and
- Bungaree Road at Cornock Avenue.

These upgrades will provide safe access into the school including via the relocated main entrance on Binalong Road.

Bicycle parking

The cycling mode share is predicted to increase by a number of means outlined in the Green Travel Plan provided at **Appendix L**, including distribution of transport access guides to staff and students, an annual Ride2School Day and the provision of 70 bicycle parking spaces on the school grounds.

Based on feedback provided by Parramatta Council through the Parramatta Transport Working Group a staged approach has been adopted where 70 bicycle spaces will be provided in the first instance and expanded to 130 in future development applications.

The school does not currently have end of trip facilities available for staff which is considered a deterring factor contributing to no current staff riding a bike. End of trip facilities in the form of 1 shower with a change area, plus provision of 10 lockers for personal storage are being constructed in one of the existing buildings however these works are part of a separate application and do not form part of this SSDA.

These end of trip facilities coupled with the methods listed above will encourage staff and students to ride their bikes to the school.

Vehicular access

No new vehicular access points are proposed as the location of the entrance to the car park and the emergency vehicle access point will remain the same.

Key Findings

A review of the available transport options and the forecasting for the future indicates that driving and taking the bus are likely to remain the most popular means of arriving and departing the school.

In terms of active transport, given the available cycle paths are on-road and the site is sloped, cycling is not likely to become the main transportation mode for students however there is scope to increase the current mode share to 10% assisted by on-site hardstand bicycle parking and end of trip facilities being provided and behavioural change strategies to encourage cycling to school, as outlined in the Green Travel Plan (GTP) at **Appendix K**.

Walking trips are likely to remain constant or increase slightly, as people who previously drove may opt to walk due to lower availability of on-site parking. Upgrades to pedestrian access will encourage more students are staff who live locally to walk.

There is a reduction in parking overall, however measures will be put in place to reduce the mode share of private vehicle trips. On-street parking availability is also high as demonstrated in historical usage data, showing that any possible overflow could be accommodated in the adjacent street frontages.

The development is for the purposes of a school, and therefore experiences demand during school hours only which would leave all on-street parking available for residents overnight.

Green Travel Plan

As discussed, A GTP has been prepared in order to achieve the desired more share and improve transport conditions options.

A detailed GTP, has been prepared by TTW, and is appended at **Appendix K**. This report is to be read in conjunction with the Traffic and Transport Impact Assessment, also included in **Appendix K.**

The GTP aims to increase active travel and transport for students and staff, by reducing traffic congestion, implementing student safety measures, optimising the site layout and increasing public transport usage. The GTP outlines a range of proposed action items including:

- Distributing Transport Access Guides to staff and students with information on safe and sustainable options for travelling to the school;
- Programming and events such as a Ride2School Day to encourage active transport usage;
- Working with Transport for NSW to improve bus services;
- Encouraging staff to carpool through priority parking arrangements; and
- Regular reviews of the Green Travel Plan to reassess priorities.

<u>Construction Traffic and Parking</u>

A Construction Traffic and Pedestrian Management Plan (CTPMP) has been prepared by TTW for the proposed development to outline the construction traffic measures to improve site safety for the public and workers during the construction process. Refer to the Plan at **Appendix N**.

Construction Vehicle Access

The majority of works will occur adjacent to Binalong Road, providing good construction access to the site, and allowance for an on-street Works Zones in the existing bus bay. Due to the grade difference between site and Binalong Road, the driveway into the site will be limited to the southern end of the frontage or would require significant earthworks at other locations. Four options for the access arrangement are discussed in the CTPMP with the preferred option to be determined and confirmed in the final CTPMP.

A swept path analysis was conducted that demonstrated that vehicle manoeuvring in and out of the site will not change on completion of the development as the existing car park access and servicing scheme will be retained. The swept path analysis was modelled for a vehicle of 12.5 metres length. The swept path analysis is provided in the Transport and Accessibility Impact Assessment in **Appendix L**.

Construction vehicles will enter the site from Binalong Road. **Figure 44** below shows routes for vehicles travelling to and from the north/west, north/east, south/west and south/east.

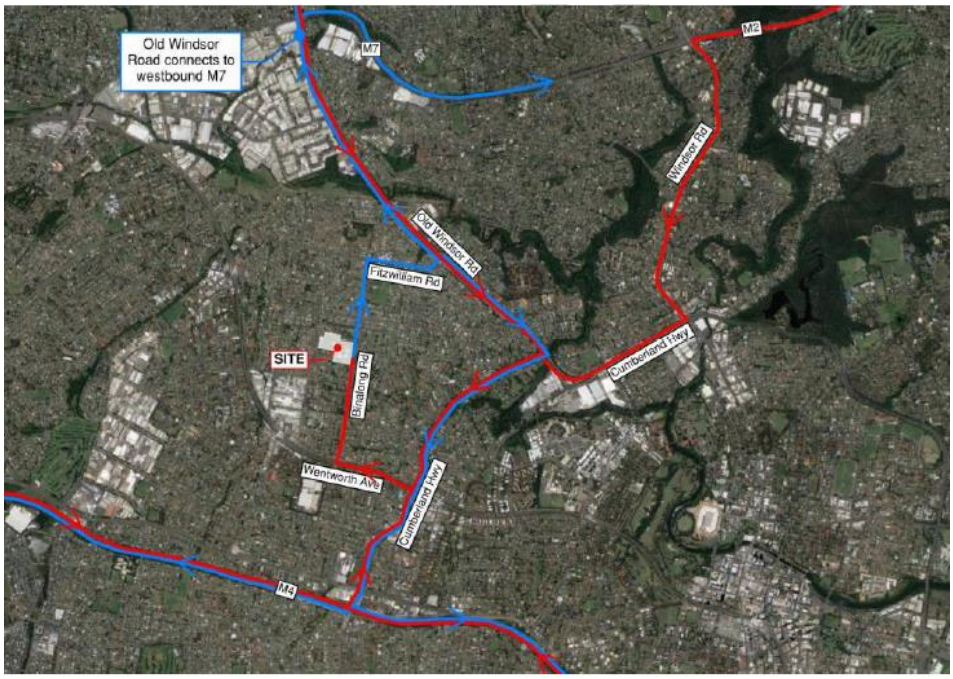


Figure 45 Construction vehicle routes
Source: CCTMP prepared by TTW

Works Zone

Throughout the entire SSDA stage a work zone will be required on Binalong Road in the existing bus bay. Due to the relatively low traffic volumes on Binalong Road, trucks are anticipated to be able to exit the Works Zone in suitable traffic gaps.

Pedestrian Access

Several options are being considered for the management of pedestrians in and around the Binalong Road Works Zone. These include removing access to the footpath within the Works Zone, installing overhead hoarding and relocating the footpath.

Depending on the finalized vehicle access arrangement, the Knox Street pedestrian access may become unavailable. In this case, relevant barricades and signage would be installed to direct pedestrians to alternate entries.

The CTPMP also addresses Parking Controls, Pedestrian Management, Staff Parking, Emergency Vehicle Access, and more. TTW found that with the measures described in the CTPMP in place, impact of the construction on the daily activities of the school and the neighboring properties can be minimized. It is envisaged that this document will be

reviewed during the construction stage and amended if required, due to changes in design, TfNSW, Council or any other authority requirements.

6.7 Ecologically Sustainable Development

As required by Item 7 of the SEARs, an Ecologically Sustainable Development (ESD) report has been prepared by Aurecon and is provided at **Appendix Y**.

ESD initiatives

Overall, the proposed development is seeking to achieve a 5-Star Green Star rating, through formal certification with the Green Building Council of Australia. To achieve this, several building services and façade design improvements are proposed to assist in achieving this, including:

- The design will adopt passive cooling and heating design principles to reduce the school's reliance on artificial lighting and HVAC systems, through; external shading, glazing on glass and implementation of a cross flow ventilation strategy in occupied spaces to provide thermal comfort for students and staff. It is proposed to install a heat recovery unit which serves to temper the outside air and reduce the outside air heating and cooling loads.
- All mechanical equipment will be selected for maximum operational efficiency and support to life cycle cost analysis. This will be supported by sustainable electrical services, including long life LED lighting, internal blinds and screens, energy and water monitoring screens for students and staff monitoring and implementation of solar photovoltaics (PV) system. To further limit electricity consumption from lighting, motion sensor control is proposed to limit lighting in occupied spaces, which will also be accompanied by manual local switches for user control.
- With regard to hydraulic services, the project team will adopt efficient hydraulic services to assist water efficient design, including, however not limited to rainwater reuse, water sub-metering and electric hot water supply.

The project team has also taken into consideration a number of broader sustainable strategies in relation to waste management, promoting alternative forms of transport, future proofing of building infrastructure and the use of sustainable materials within the new building.

The four principles of ecological sustainable development as set out within 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 have been incorporated into the proposal, as detailed below.

Precautionary Principle

Namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:

- Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and
- An assessment of the risk-weighted consequences of various options.

Due to the proposed works being a redevelopment of the existing long-standing school at the site, it is considered that there will be no additional adverse environmental effects. During the construction phase, a detailed Construction Environmental Management Plan (CEMP) and a Climate Adaption Plan will be implemented to ensure all environmental risks are mitigated and appropriately managed.

Intergenerational equity

Namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.

The proposed development will aim to reduce consumption of energy, water and reduce waste, both as part of the construction and operational phases of the development. The ESD principles have been incorporated into the development through energy efficient measures and towards achieving the overall a 5-Star Green Star rating, including through formal certification with the Green Building Council of Australia.

Conservation of biological diversity and ecological integrity

Namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration. Whilst matter relating to biodiversity are addressed within this report at Section 6.18, given that the site is already developed, there is minimal biological concern for the development overall. As detailed within this report, a detailed CEMP will be developed to mitigate any further adverse impacts to biodiversity during the construction phase.

Improved valuation, pricing and incentive mechanisms

Namely, that environmental factors should be included in the valuation of assets and services, such as:

- Polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance and abatement;
- The users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assts and the ultimate disposal of any waste; and
- Environmental goals, having been established, should be pursued in the most cost-effective way by establishing incentive structures, including market mechanisms that enable those best placed to maximise benefits or minimize costs to develop their own solutions and responses to environmental problems.

As detailed within the ESD report at **Appendix Y**, it is acknowledged that expenditure in sustainability initiatives will provide a return on investment over the life of the building, which has will be factored during the detailed design phase with regard to the final sizing and specification of items such as for PV panels and rainwater tanks.

Overall, the project is considered to provide for industry best practice in achieving sustainability targets and in accordance with the requirements of the SEARs. Whilst further opportunities exist to improve sustainability during the detailed design phase, it is noted that the project is seeking a 5-Star Green Star rating, through formal certification with the Green Building Council of Australia to ensure all sustainability targets are met.

6.8 Social Impacts

A Social Impact Assessment (SIA) has been prepared Elton Consulting and provided at **Appendix K**. Potential negative impacts are anticipated during the construction phase such as congestion, dust and noise. Elton Consulting anticipates an overall social benefit from the proposal once the new building and facilities are operational. Positive impacts identified by Elton were improve learning outcomes ad learning experience, increased student capacity and local job creation.

A potential social benefit arises where a shared access arrangement can be established for some of the school's facilities. School Infrastructure NSW has a current Memorandum of Understanding with Council around exploring partnership opportunities. Council has identified a shortage of community spaces (halls, meetings rooms), indoor sport courts and sports field in the area. As a result, a shared access arrangement would have an immediate social benefit.

As per the NSW Department of Education's policy of 'Community Use of School Facilities Implementation Procedure', schools are encouraged to share facilities with their local community. This policy encourages members of the community and education groups to use school facilities for appropriate uses and purposes when they are not required by the school.

The SIA report prepared by Elton Consulting indicates that previous attempts to share the School's spaces have been unsuccessful because the current facilities are in poor condition. An improvement to the school's facilities will encourage more people to use the school's spaces, providing a net social benefit to the community. The proposal has been designed by Fulton Trotter Architects so as that the facilities could be adapted for shared uses in the future, however no current formal commitment to share facilities is in place.

It is noted that Council and School Infrastructure NSW are currently in discussions about future partnership opportunities. Any such arrangement for the shared or joint use of facilities would provide improved facilities for all community users and contribute to community cohesion. School Infrastructure NSW will continue to liaise with Council to determine any such arrangements regarding the sharing of facilities.

Table 24 Social impacts

Social Impact	Assessment
Adequate access to education facilities	The proposal will increase access to education within the Parramatta LGA, relieving education demand needs. The proposed upgrades will support a diverse curriculum with the provision of more learning spaces and learning spaces that can be used for specialized learning. The proposal will create spaces that are more agile and flexible for students and staff alike.
Local business	During the construction phase, the project is expected to generate employment and business opportunities, Including providing construction jobs for the local area. A flow on to other local entities due to the increase of project related salaries in the area may also occur.
Employment during construction and operational phases of development	The development of the school will provide employment through the construction phase and beyond when the school becomes operational. As discussed earlier, it is proposed that the development will generate 44 jobs during the construction phase and 18 full time employment staff during the operational phase.
Visual/ noise	Refer to visual impact analysis within the Architectural Design Statement, appended at **Appendix F**. The construction and operation of the proposed school site is demonstrated in Part 6 of this report, and the impacts will be sufficiently meditated through on site hoarding. Construction will be contained to 9am and 5pm weekdays and Saturdays 8am -1pm to limit disruption to nearby residents.
Traffic and transport	TTW have modelled the proposed development against the road network and proposed generation of traffic from the site and have found that the required level of service will be maintained on the adjoining road network, even with the increase in student enrolments.
Safety and security	The proposal has been designed with CPTED principles addressing concepts: – Crimes against people and property are less likely to occur if other people are around; – Passive surveillance; and – Giving people options and safe choices. A CPTED assessment is provided at **Appendix F** and is discussed further in Section 6.4.
Access and use of community facilities	As per the DoE's policy, appropriate use of school facilities include:

	– Children's services; – Community language schools; – Dance, Music or drama lessons; – Community education and training; – Community productions; – Community meetings; – Sporting events; and – Vacation care. For further discussion on community access see Section 3.15.

6.9 Noise and Vibration

As required by Item 10 of the SEARs, an Acoustic Assessment has been prepared by Aurecon at **Appendix X.**

Method

In undertaking this assessment, the following the applicable NSW policies and Australian Standards have been applied, including, however not limited to the NSW Noise Policy for Industry 2017, NSW Interim Construction Noise Guideline 2015, NSW EPA Assessing Vibration: A Technical Guideline 2006; NSW DECCW Road Noise Policy 2011 and the Association of Australasian Acoustical Consultants (AAAC) Technical Guideline for Child Care Centre Noise Assessment.

In addition, six (6) noise monitoring locations were selected to characterize the existing noise environment at the site. These locations were generally located to determine acoustic impacts to nearby sensitive receivers, being residential development to the east (R1), north east (R2), north (R3), north west (R4), west/south west (R5) and south (R6). Both unattended noise monitoring and attended measurements were also conducted to develop a base line acoustic environment and identify the any contributing factors.

Based on the background and ambient noise and vibration monitoring carried out within and surrounding the site, Aurecon has developed project specific noise and vibration criteria and mitigation measures to minimize any impacts from noise and vibration.

The Acoustic Assessment establishes noise intrusiveness criteria for residential receptors between 7am and 10am. The Acoustic Assessment also establishes the road traffic noise criteria required for assessment of sensitive development adjoining busy roads.

Operational Noise and Vibration

As detailed at Section 7 of the Acoustic Assessment, key noise sources associated with the operation of the school include:

1. Increased student capacity on outdoor play areas;
2. Community use (after-hours) and lecture theatres;
3. Building services and plant, as well as the public address (PA) system (including the school bell); and
4. Noise arising from additional traffic generation within the surrounding road network.

With regard to item 1, it is the overall objective of the proposed development to upgrade existing facilities, whilst increasing student capacity at the site. The Acoustic Assessment provides that whilst the proposed increased student capacity will increase noise generated from outdoor play areas at the site, these impacts throughout the day are marginal, being approximately 1-2dB over the existing site circumstance, will not result in any unreasonable amenity impact to nearby sensitive receivers. It is noted that the use of outdoor play areas is intermittent throughout the school day, whilst being varied across the multiple outdoor play areas provided within school grounds.

With regard to item 2, impacts resulting from after-hours use are considered to be negligible and will not result in any unreasonable impact to surrounding nearby sensitive receivers. Any potential impacts can be further ameliorated through the provision of suitable acoustic glazing (which can be implemented as a suitable condition of consent).

With regard to item 3, impacts resulting from building services, the school PA system or bell are within allowable limits and therefore not considered to result in any unreasonable impact to surrounding receivers over existing circumstances. For new infrastructure (such as air conditioning) suitable acoustic barriers are proposed, whilst for the PA system and bell, it is recommended that decibel limiters are installed to limit the potential for exceedance. It is anticipated such measures will be considered as part of future detailed design processes.

With regard to item 4, the proposed revised access arrangements are considered to result in a significantly improved traffic and acoustic outcome, alleviating pressure from surrounding residential streets, however with additional traffic directed along Binalong Road, which provides a more arterial function within the locality. With the exception of Binalong Road, both AM and PM traffic volumes are expected to decrease, presenting an improved acoustic impact during school pick up and drop off periods.

Whilst it is acknowledged that Binalong Road will experience additional vehicle movements to the school arising from the proposed development, the acoustic assessment has determined that given the nature of traffic flows during the day, this is generally in accordance with the DECCW Road Noise Policy 2011, and whilst may experience minor exceedances (within 2dB), is considered acceptable under the circumstances.

Overall, it is concluded that the proposed development can be designed to have limited acoustic impacts and can meet the applicable environmental noise emission criteria at the nearest sensitive receivers.

Construction Noise and Vibration

In addition to operational noise, the Acoustic Assessment has sought to determine any impacts associated with construction noise and vibration.

Nearby sensitive receivers expected to be most affected by construction noise include those along Cornock Avenue and Knox Street, which provide more direct vehicular access to the development site. Sensitive receivers within other surrounding streets are expected to receive lesser impacts due to a greater setback from the construction works and lesser vehicle movements associated with the construction.

The Acoustic Assessment recommends mitigation measures for implementation during the construction phase to limit any noise or vibration impacts to nearby properties. In particular, a detailed Construction Noise and Vibration Management Plan (CNVMP) will be required once the contractor is appointed and construction management is finalised before construction commences on site. It is anticipated this be incorporated within any conditions of consent.

6.10 Contamination

A contamination assessment for the school found the most significant risks associated with contamination were considered to be imported fill and previous site uses impacting fill and surficial soils.

The report also cites a contamination risk associated with the demolition and renovation of existing buildings impacting fill and surficial soil. No works to existing buildings or demolition are proposed as part of this application however works to existing buildings is proposed under separate approvals and could impact on the site conditions for the subject development.

A contamination assessment for the school was completed in 2020 and the supplementary contamination assessment provided as part of the application has been completed to document further testing done in March 2021.

The Supplementary Contamination Assessment found the northern portion of the playing field has a moderate to high potential to be impacted with asbestos contamination.

The following recommendations were made:

- Undertake an additional investigation to confirm the presence of FA/AF (asbestos) in the topsoil as an additional safety measure for the existing site users;
- Prepare a site-specific asbestos management plan;
- Investigate lateral and vertical delineation fill and contamination (asbestos) identified in the vicinity of one of the borehole locations (BH109) prior to commencement of works
- Complete a detailed asbestos assessment during early works and put in place appropriate asbestos monitoring controls and test pits / trenches that can be easily excavated to delineate the asbestos impacted area
- Prepare a remediation action plan (RAP) which would include and outline both requirements of the detailed asbestos assessment (as discussed above) and potential remediation strategies with a preferred approach dependent on the proposed works plan.

A remediation action plan has been prepared and is attached (Appendix P). The RAP establishes appropriate remediation objectives, strategies and processes to enable remediation such that the site is suitable for the proposed land use. A detailed assessment of the asbestos impacts and an asbestos management plan will also be prepared prior to commencement of works.

Prior to commencing the construction works, the project Environmental Consultant is to be informed of the proposed remedial approach to be adopted for each stage. If there are any proposed changes to the remediation approach as a result of further testing, or any unexpected finds are discovered during works, then the RAP will be updated in consultation with the relevant parties.

6.11 Groundwater

Douglas Partners was contracted to assess the probable impact to groundwater from existing contamination on the site. The assessment found that it was unlikely that overlying soils and associated contamination would impact underlying groundwater and unlikely that groundwater would be encountered at all due to the development given that no basement levels or dewatering are proposed.

6.12 Geotechnical

A Geotechnical Investigation has been undertaken through various reports appended at **Appendix O**, **Appendix P** and **Appendix Q**.

Acid Sulfate Soils

In accordance with the PLEP 2012, the site is located in an area with an extremely low probability for the occurrence of Acid Sulfate Soils.

Groundwater

Douglas Partners was contracted to assess the probable impact to groundwater from existing contamination on the site. The nearest surface water receptor is Pendle Creek which is located approximately 600m west of the site The assessment found that it was unlikely that overlying soils and associated contamination would impact underlying groundwater and unlikely that groundwater would be encountered at all due to the development given that no basement levels or dewatering are proposed.

Salinity

Field investigations were undertaken involving the drilling of thirteen boreholes to a depth of 3 metres below ground level. All of the soil samples collected were non-saline, and as a result the entire site has been confirmed to be non-saline. Additionally, Douglas

Partners identify that management of sodic soils is required to prevent adverse effects occurring on the site. It is therefore imperative that all imported materials should be assessed for salinity to maintain the non-saline nature of the site. For full findings please refer to the Salinity Investigation and Management Plan prepared by Douglas Partners **Appendix Q.**

6.13 Structural

A Structural Design Statement was prepared by Aurecon which assessed the structural strength of the proposed building.

The Contamination Assessment by Douglas Partners noted the presence of uncontrolled fill on the site, which can cause movement of building footings. As a result, Aurecon has recommended that the building be constructed on piles or foundations deeper than the fill layer so as to ensure the enduring stability and structural soundness of the building.

This approach has been adopted in the design of the proposed building H. Aurecon also notes the design of the new building will adhere to the Australian standards relating to building structure.

6.14 Sediment, Erosion and Dust Control

During construction, appropriate sediment erosion and dust control measures will be conducted. Measures include, protection of waste points and storm water entry points with geo-textile fabrics and hay bales to filter stormwater lines from runoff, footpaths will be swept and maintained at all times and wheels of vehicles will be monitored to prevent off-site transmission.

Further details are included in the Preliminary Construction Management Plan, prepared by TSA at **Appendix N**. Additionally, an Erosion and Sediment Control Plan has been provided at **Appendix R**.

6.15 Accessibility

The siting of Building H has been positioned to create a new site entry and street presence to Binalong Road, improving the connection of the school to the surrounding community and increasing the accessibility of the site.

The proposed development improves accessibility to all areas of the site, through the addition of:

- New ramps providing an accessible path of travel from Binalong Road;
- A new lift that provides access to all levels of the proposed new Building (Building H);
- New ramps, paths and a covered walkway that provides all weather access between Building H and existing buildings; and
- The central courtyard will provide direct accessibility into the new facilities and a central courtyard, increasing accessibility and wayfinding.

Accessibility and inclusivity are further explored in the Architectural Design Report and Landscape report (**Appendix E** and **F**).

An Access Design Statement was prepared by iAccess assessing the design against the National Construction Code 2019 (Amendment 1), the Disability (Access to Premises – Buildings) Standard provisions of the Disability Discrimination Act 1992 and the relevant Australian Standards. The Statement concluded that the proposed development can achieve compliance with the relevant statutory requirements. It is attached at **Appendix V.**

6.16 Utilities

An Infrastructure Management Plan has been prepared by Aurecon at **Appendix T.** The plan provides findings related to services for the proposal, including hydraulic, electrical and communication services.

Hydraulic

The Plan provides that there are sufficient hydraulic services to support the school, including the proposed upgrade as described below.

Existing Sydney Water authority services are present around the Pendle Hill High School site, including Sydney Water sewer drainage connection points along Binalong Road and Cornack Avenue.

The existing sewer drainage connections points and reticulated pipelines are of adequate size to accommodate the increase of load, and do not require augmentation.

The existing authority potable water supply is of adequate size to accommodate the increase of load, and it is not anticipated that any upgrades will be required.

Gas

Jemena natural gas mains are located with Cornack Avenue and has sufficient capacity to service the proposed development. A gas application will be required to be lodged once the development application consent is granted.

Electrical

Endeavour Energy is the electrical supply authority for the school site, with a single main switchboard located centrally in the school assembly playground. The electrical distribution of the main switchboard will not be impacted by the proposed upgrades.

A preliminary technical enquiry was submitted to Endeavour Energy on 23 January 2020. Their correspondence has resulted in:

- A proposed 1000kVA kiosk substation to be installed along Binalong Road; and
- A new site main switchboard in Building H with capacity to supply all buildings on site post construction.

This proposed design will minimise disruption to the school operation during construction, maintain existing infrastructure and provide sufficient capacity for the development and potential future works.

Communication Services

Pendle Hill High School is serviced by Telstra and NBN telecommunication infrastructure, which enters from Knox Street into the school.

It is important to note that the NSW Department of Education and the School's IT Department are in the process of liaising with NBN and Telstra to establish communication services for the school from Binalong Road.

In particular, the Main Communication Room is located in Block B and serves the whole school. A new Communications Room will be provided to within new Building H, in order to provide sufficient capacity to service the whole school post construction. OS2 fiber cables and inground pathways will be provided through the new development to connect the two communication rooms.

Fire Protection Services

The school has no fire detection and alarm systems installed, however is supported throughout with fire extinguishers in the library, main switchboard room and laboratory.

6.17 Drainage

Under existing conditions, stormwater runoff within the development site drains as overland flow, down the embankment and to the concrete channel into the council pit. Given that it is a new establishment, any increase of stormwater runoff has the potential to adversely impact the carriageway. Therefore, the development will include a detention tank to control the flow into the City of Parramatta's drainage network.

Aurecon was commissioned to design a drainage and detention solution in accordance with City of Parramatta Council standards.

Aurecon proposes stormwater treatment devices in addition to a 243m^3 detention tank to control the discharge into the wider council drainage network. This system was modelled using DRAINS software on a scenario where the site was further developed to include the proposed works. The modelling results indicated that with Aurecon's proposed stormwater treatment devices and 243m^3 detention tank in place there would be no adverse impact to downstream properties. The Stormwater Management Plan is provided at **Appendix W**.

6.18 Biodiversity

A Biodiversity Development Assessment Report (BDAR) was prepared by ecologist, Kleinfelder and is appended at **Appendix Z**.

The BDAR provides evidence that the proposed development is not likely to have a significant impact on biodiversity values within the site. As the area to be modified is very small, the site comprises isolated native planted vegetation or exotic grassland will be sufficiently managed.

6.19 Sediment, Erosion and Dust Control

The appropriate sediment, erosion and dust control measures have been prepared and are included in the Preliminary Construction Management Plan, prepared by TSA at **Appendix N.**

6.20 Waste

A Site Waste Management Plan (SWMP) has prepared by Taylor at **Appendix AB**. The WMP includes provisions that will inform operational and construction waste management measures required on site once planning approval is sought.

Construction waste

A Construction Management Plan (CMP) is appended at **Appendix N** and provides an informed framework to maximize resource recovery and minimize waste. In accordance with the CMP, waste procedures will be managed by the site contractor.

The Site Waste Management Plan (SWMP) states that waste generated on the site will be reused and recycled where possible, with landfill disposal undertaken when required.

The SWMP notes that any hazardous waste found on the site will only be handled and disposed of by competent persons. Relevant to this development, this would apply to any asbestos that was found on the site during construction.

Operational waste

An Operational Waste Management Plan (OWMP) has been prepared by EcCell and is appended at **Appendix AB.** The OWMP mentions that the operational waste requirements will continue to stay in line with the waste management framework currently being undertaken by the school.

The operation of the school has and will continue to generate a variety of waste streams, including general waste, paper recycling, comingled recycling, shredded paper, e-waste and printer cartridges. Areas for waste will be stored and collected from adjacent to Building A and within the school grounds. Waste and recycling will be transferred by staff from the point of generation to an onsite bin storage area.

6.21 Economic Impacts

The economic impacts of the proposed development are positive as 44 FTE construction jobs and 5 FTE consultant positions will be created over the course of the project. An additional 18 school staff positions would be created. The construction works have a CIV in excess of $20 million which will stimulate the economy. Government infrastructure works are particularly important in the current Covid-19 environment to generate jobs and stimulate the economy.

6.22 Cumulative Impacts

Council advised there are no planned works for the local roads near the site and that while some residential projects are occurring the small scale of these developments mean that they will not affect the construction program. Further details about nearby construction works will be confirmed in a final CTPMP. The Department of Planning, Industry and Environment's Major Projects website identified two projects near to the site; the Wentworthville Public School redevelopment which commenced in early 2021 and will continue construction until mid-2022, and the Pendle Hill Liquid Waste Management Facility for which an application had not yet been lodged to DPIE at the time of writing.

Works sperate to this approval are proposed as 'Exempt Development' under the ESEPP. These early works allow for additional demountable buildings on site to allow for the continued operation of the school during construction of the proposed works. The installation of demountables would precede the school upgrade under this SSDA. It is anticipated all early works will be complete on site before the SSDA works commence and therefore no cumulative impact on the site will occur.

The total timeframe for construction of the works subject of this application is approximately one year. Note it will be the same contractor appointed for both the early and SSDA works.

While the early works will add to the cumulative impacts to surrounding residents and community, all are necessary to keep the school operational and facilitate construction. A preliminary CMP and a CTPMP have been prepared for the SSDA and will be updated as the application progresses.

The CTPMP prepared by TTW at **Appendix L** provides that during the construction stage, liaison with adjacent developments (if any) will be undertaken to mitigate the cumulative effect of the concurrent works. This will include the coordination of truck movements to prevent the combined impact of construction activities.

6.23 Site Suitability

There are no known site conditions which would prevent the development including geotechnical conditions, contamination, flooding, biodiversity, Aboriginal cultural heritage or other. There are traces of asbestos in the northern corner of the site however a Remediation Action Plan has been developed providing strategies and mitigations to such that the site can be made suitable for the proposed land use.

While existing trees will be impacted, their removal will be compensated by proposed tree planting to increase the trees on site and tree canopy cover to 24.9%.

There is sufficient land within the site to be able to provide for a generous provision of play space per students and met recommended standards.

The proposed development will deliver 28.2m^2 of play space per student (based on 1,320 student enrolments).

The impacts on surroundings during construction and operation are not significant and can be adequately managed.

The site has long been used as a school and its upgrade will ensure its longevity as a school is maintained, whilst providing improved facilities to continue to attract enrolments from local families. There is an existing height of buildings development control of nine metres which the development would exceed. However proposed Building H will sensitively respond to the residential character of the area context through building setback and scale, landscaping and in its use of compatible materials and finishes.

The site is therefore suitable for the proposed development.

6.24 Public Interest

The proposed development offers significant public benefits to the users of the school and the broader community.

Where there are environmental impacts these can be sufficiently ameliorated through mitigation measures and design development. There will be impacts on the local community during construction particularly from construction traffic and partial temporary road closures, however this will be closely managed in accordance with the CCTMP and the Detailed Construction Traffic and Pedestrian Management Plan that is required to be prepared.

Generally, the proposal will deliver a significant public benefit because it is for the purpose of important public social infrastructure that will meet the educational and social needs of the local community. It will result in increased quality of education and improve student outcomes and staff satisfaction.

Other key benefits of the proposed school upgrade include:

- It responds to increase in demand for educational facilities. Without the development, there will be a shortfall in capacity of which cannot be accommodated at other schools elsewhere within the SCG.
- It will provide permanent facilities for students and staff that meet current standards and best practice requirements. It will eliminate the need for demountable buildings on site. The current school has inadequate core facilities that do not meet required standards.
- The existing buildings are setback from the street and make the school feel disconnected from its surrounds. A proposed new Building H has been designed to be the new entrance to the site and will improve the legibility into the school and sense of connection with the community. It has been subject to a design review process with GANSW and will be subject to their further expert design advice and refinement during design development.
- Improved play space, tree numbers, tree canopy and shade cover for students compared with the existing situation. The proposed development will provide 28.2m^2 of play space per student (based on 1,320 student enrolments).

- Improved and coherent landscaping strategy for the site which will make the relationship between the school buildings feel more coherent, and improve wayfinding and amenity within the school.
- The new building will be designed to equivalent 5-star Green Star Design, improving environmental performance of the school.
- It will generate 44 construction and non-construction Full Time Equivalent jobs during construction phase, and 18 additional teaching related positions during operational phase. Hence, these jobs, together with the value of the project, will stimulate the economy.
- The site has been long used as a school and its redevelopment will ensure its longevity as a school is maintained.

On balance, accounting for site suitability, environmental impacts, risk assessment and key benefits detailed further above, the proposed development is in the public interest.

7. Environmental Risk Assessment

In accordance with the SEARs, this section 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), identifies mitigation measures, and once these measures are applied, identifies residual risks (low, medium, high).

Table 25 Environmental Risk Assessment

Impact Theme	Impact Detail	Level of Impact	Mitigation Measures	Residual Risk
Traffic				
Construction	As mentioned in the Concept Construction Traffic Management Plan (CCTMP) and the Preliminary Construction Management Plan, TTW and TSA identified that the construction activity can be managed so as to have minimal disruption to the daily activities within the vicinity of the site.	Medium	Construction Traffic and Pedestrian Management - A Detailed Construction Traffic and Pedestrian Management Plan will be required to be prepared as a condition of consent. This is to address cumulative impacts of other on-site and surrounding development including truck movements. Parking – A portion of the car park is affected during construction resulting in a decrease in parking spaces. The car park works will be limited to line marking changes and surveys indicated there are usually 23 vacant spaces so the impact can be managed. Emergency Vehicle Access – The emergency vehicle access via Cornock Avenue will be maintained during construction.	Low
Operation	It has been determined that the proposed development will likely increase the traffic generation by 535 trips in the morning peak and 316 trips in the afternoon peak hours. This, in combination with acceptable results of the existing traffic situation, it is considered that the network will still be able to operate at an appropriate level of service with the increased student and staff numbers.	Low	Pedestrian crossing infrastructure – SINSW developed a pick-up/drop-off zone strategy to distribute the pick-up/drop-off function between seven locations; one on each side of Binalong Road, Burrabogee Road and Bungaree Road, and one westbound on Favell Street. The primary kiss and ride location will be southbound on Binalong Road to the south of the bus bay and near the new entrance. Having several kiss and ride locations will improve the access to the school by vehicle, reduce congestion and improve safety outcomes. In addition, four pedestrian crossings are proposed as part of the application; two on Binalong Road and one on each of Knox Street and Bungaree Road.	Low
Noise & Vibration				
Construction	Based on the results of the preliminary assessment, the noise associated with the normal construction works is expected to exceed the noise limits for highly noise affected receivers within standard hours – and consequently also for outside of	Medium	A Detailed Construction Noise and Vibration Management Plan (CNVMP) will be prepared before construction.	Medium

	standard construction hours – in accordance with the ICNG Guideline. For any vibration intensive plant expected to be within close proximity of the minimum distances described in the Noise & Vibration Impact Assessment, the contractor must engage a qualified engineer to carry out a vibration survey in order to assess any potential risks. The vibration survey and assessment will determine whether the vibration levels might exceed the relevant criteria then vibration mitigation and management measures will need to be put in place to ensure vibration impacts are minimized as far as practicable.			
Operation	Noise emissions associated with operation of the school will remain similar however some additional noise will be generated by the proposed development. This relates to the increased student capacity in outdoor play areas, mechanical plant and additional traffic generated by the upgrade.	Low	For operational noise, a similar or higher level of noise impact can be expected at the nearest affected residence, from the use of outdoor play areas associated with the school. Noise emission predictions indicate levels of up to 69dB(A)Leq at the façade of some adjoining residential properties, which is considered a reasonable level for a school. The Public Address and School Bell Systems shall be designed, installed and operated in accordance with the recommendations in the Acoustic & Vibration Impact Assessment. Building façade treatments for the library and lecture theatre will minimize disruption to students from traffic and similarly minimize disruption to residential properties during after-school activities. The Acoustic & Vibration Impact Assessment concluded the noise levels omitted from the operations of the school upgrade will meet the relevant project operational noise limits and the management strategies above will allow for disruption to neighbors to be minimized. A detailed construction noise and vibration impact study will be completed later in the project.	Medium
Built Heritage				
Construction and Operation	There are no built heritage impacts arising from the proposed works.	N/A	None required.	N/A
Aboriginal Heritage				
Construction and Operation	There is no Aboriginal cultural heritage that has been identified for the study area, and proposed development footprint, that would be harmed by the proposed development.	N/A	None required. If any unanticipated Aboriginal archaeological objects, sites or PAD are identified during the construction program within the impact footprints, works would cease immediately, and the applicant would notify Heritage NSW.	N/A

8. Recommendations and Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed upgrade works are detailed in **Table 26** below.

These measures have been derived from the previous assessment in **Section 6** and those detailed in appended consultant's reports.

Table 26 Mitigation Measures

Item	Mitigation Measures
Aboriginal Heritage	The Aboriginal Cultural Heritage Assessment Report (ACHAR) (Appendix M) prepared by Tocomwall, confirmed there are no Aboriginal heritage impacts arising from the proposal and therefore no mitigation was recommended.
Historical Archaeology	If any unanticipated Aboriginal archaeological objects, sites or PAD are identified during the construction program within the impact footprints, works would cease immediately, and the applicant will notify Heritage NSW. The necessary mitigation will determined at such as time as this occurs and dependant on the archaeological value of the find.
Traffic and Accessibility	The main impacts from the development are due to the increased student and staff attendance at the school and therefore are related to additional road traffic and the consequences for travel times, safety and the environment. In relation to the travel times, the SIDRA modelling completed by TTW concluded the level of service on the road network, resulting from the expected additional trips generated by the development, will continue to operate at an appropriate level of service. The worst condition were expected at the Binalong Road and Burrabogee Road intersection where a with a 27.4m queue length (95th percentile), equivalent to a 14.6-second average delay was expected, which is still an acceptable level of service. The delay at the intersection currently is 11.8 seconds, so the additional delay is 2.8 seconds. Another mitigation is to redirect trips towards more sustainable modes (public transport, cycling and walking) which have less impact to the road network and the environment, as well as improved safety outcomes. The chosen strategies for shifting the mode share are detailed in the Green Travel Plan and discussed in Section 6 of this report. In relation to safety, reducing the volume of the cars on the road will improve safety for students and staff arriving at the school. In addition four new pedestrian crossing are proposed as part of this application. The four locations were selected following feedback provided in the Parramatta Transport Working Group and based on forecasted pedestrian levels. The four locations are: – On Binalong Road north of the site; – On Binalong Road south of the site; – Burrabogee Road at Knox Street; and – Bungaree Road at Cornock Avenue. These upgrades will provide safe access into the school including via the relocated main entrance on Binalong Road. For further detail see the Traffic and Accessibility Impact Assessment, and the Green Travel Plan prepared by TTW (Appendix L).
Construction Traffic	Additional traffic is expected to be generated by the development by construction vehicles as well as constructions staff arriving and parking at the site. The access arrangement for construction vehicles is still being considered and five options have been proposed. The large undeveloped area on the site provide adequate space for entry and exit into the site without having to affect access to school buildings. For construction staff parking it is noted the average vacancy rate in the existing car park is 23 spaces during the week and the full car

	park capacity is available on the weekends. No works are proposed to the car park except for line marking to make them larger and compliant as well as to provide additional accessible parking. As a result the capacity within the car park will be available to construction workers during the construction period. The additional 21 construction staff would have to park in adjoining streets which have unrestricted parking, or commute to the site by other means. To lessen the impacts of construction worker parking, workers will be encouraged to carpool or use alternate transport methods where appropriate. There are suitable pedestrian facilities leading to the site from both Pendle Hill and Toongabbie train stations. Public bus route 711 services two bus stops outside the site. Where possible works will be conducted during school holiday periods and so the whole construction staff could be accommodated within existing car park during this time/ Construction and operational traffic measures will be addressed in accordance with the Construction Traffic and Pedestrian Management Plan prepared by TTW, and the Preliminary Construction Management Plan (**Appendix N).** A detailed Project Program and Construction Management Plan will be prepared prior to site establishment.
Groundwater	A Groundwater assessment was completed for the development and found that it was unlikely that overlying soils and associated contamination would impact underlying groundwater and unlikely that groundwater would be encountered at all due to the development given that no basement levels or dewatering are proposed. Given no groundwater is expected to be encountered, no mitigations were recommended. For more detail see the Groundwater report prepared by Douglas Partners, dated 17 March 2021 (**Appendix O**).
Contamination	The proposed upgrade works will be delivered in accordance with the recommendations in the Remedial Action Plan (RAP) prepared by Douglas Partners (**Appendix P**) and the Contamination Assessment prepared by Douglas Partners (**Appendix S**) both dated March 2021.
Salinity	The findings of the Salinity Investigation and Management Plan prepared by Douglas Partners were that the site was non-saline. Consequently, no special salinity precautions or mitigation measures are considered necessary for the site.
Arboricultural	The construction of Building H requires removal of 5 trees located within the development footprint. These trees were assessed as having low or moderate retention value. An additional 54 trees will be planted to mitigate the loss of tree canopy and result in an overall doubling of tree canopy of 12.6% to 24.9%. The proposed works will be delivered in accordance with the recommendations described in the Arboricultural Impact Assessment Report dated 25 March 2021 at **Appendix I**.
Ecologically Sustainable Development	Building H has been designed so as to be capable of achieving a 5 Green Star certification from the Green Building Council of Australia. Several building services and façade design improvements are proposed to assist in achieving this, including: – Passive cooling and heating design principles to reduce the school's reliance on artificial lighting and HVAC systems, through; external shading, glazing on glass and implementation of a cross flow ventilation strategy – It is proposed to install a heat recovery unit which serves to temper the outside air and reduce the outside air heating and cooling loads – All mechanical equipment will be selected for maximum operational efficiency and support to life cycle cost analysis and will be supported by sustainable electrical services (long life LED lighting, internal blinds and screens, energy and water monitoring screens for students and staff monitoring and implementation of solar photovoltaics (PV) system) – Motion sensor control is proposed to limit lighting in occupied spaces. – Efficient hydraulic services to assist water efficient design will be adopted. See the Ecologically Sustainable Development Report prepared by Aerocon at **Appendix Y**.

Visual privacy	The building will be designed so as to maintain the privacy of adjacent residents, in particular those on Binalong Road to the north of the new building and across the road from the new entrance. Aluminium hoods will be affixed to the windows of Building H and landscaping is proposed between Building H and 82 Binalong Road (to the north) as well as along the Binalong Road frontage to maintain the privacy of residents at these addresses. Detail is provided in the Landscape Strategy (Appendix H) and the Architectural Design Deport (Appendix F).
Accessibility	The school site will overall be more accessible after the proposal than previously. The design includes a ramp leading into a lift lobby designed so as to make the new building fully accessible. Further, line marking works are proposed within the existing car park to provide additional accessible car spaces. The works have been designed in accordance with the relevant statute and Australian Standards for disability access. The proposal will be delivered in accordance with the Access Design Statement, prepared by iAccess at **Appendix U**.
Waste	Construction and operational waste will be managed in accordance with the measures identified in the Construction Management Plan prepared by TSA and at Appendix L and the Operational Waste Management Plan prepared by EcCell dated 18 March 2021 at **Appendix A**.
Structure	The proposed upgrade works are certified as compliant with the relevant standards for building structure as detailed in the Structural design report at **Appendix U.**
Hydraulic Services	The proposed upgrade works have been designed in accordance with the Environmentally Sustainable Development report, which includes a section on Integrated Water Management. The report was prepared by Aurecon at **Appendix T.**
Noise and Vibration	Based on background and ambient noise and vibration monitoring carried out within and surrounding the site, Aurecon has developed project specific noise and vibration criteria and mitigation measures to minimize any impacts from noise and vibration. Acoustic Assessment provides that whilst the proposed increased student capacity will increase noise generated from outdoor play areas at the site, these impacts throughout the day are marginal, being approximately 1-2dB over the existing site circumstance, will not result in any unreasonable amenity impact to nearby sensitive receivers. Aurecon identifies four sources of operational noise as: 1. Increase volume of students using outdoor play areas 2. After-hours use 3. Student PA system and bell 4. Traffic noise No after-school uses are anticipated except for cleaners being present on site. Any impacts from potential future uses can be further ameliorated through the provision of suitable acoustic glazing. The school PA system or bell are within allowable limits and therefore not considered to result in any unreasonable impact to surrounding receivers over existing circumstances. For new infrastructure (such as air conditioning) suitable acoustic barriers are proposed and for the PA system and bell, it is recommended that decibel limiters are installed to limit the potential for exceedance. It is anticipated such measures will be considered as part of future detailed design processes. Given the pickup and drop off locations will be distributed around the site, with the exception of Binalong Road, both AM and PM traffic volumes are expected to decrease, presenting an improved acoustic impact during school pick up and drop off periods. See the Acoustic Assessment report, prepared by Aurecon (**Appendix X**). A detailed construction noise and vibration impact study will be developed during subsequent stages of the project alongside the Project Program and Construction Management Plan to determine the level of impact on surrounding affected receivers including nearby residential properties and develop site-specific management strategies.
Construction management	Construction will be managed in accordance with the measures identified in the Preliminary Construction Management Plan prepared by Multiplex and appended at Appendix N.

	A Detailed Construction Environmental Management Plan (CEMP) is to be prepared prior to construction commencing on site.
Construction Staging	To maintain school operations, temporary accommodation (demountable buildings) will be required throughout the duration of the works. There have been approved under a separate development application to council. Hoarding/fencing will be installed to ensure safety of students and to prevent public access to, and maintain security of the works A Preliminary Construction Management Plan has been prepared in accordance with the SEARs and can be found at Appendix N.

9. Conclusion

This Environmental Impact Statement has been prepared for the proposed upgrade works to Pendle Hill High School in accordance with the Secretary's Environmental Assessment Requirements issued by the NSW Department of Planning, Infrastructure and Environment on 26 October 2020, Schedule 2 of the Environmental Planning and Assessment Regulation and Section 4.15(1) of the Environmental Planning and Assessment Act 1979. It includes assessment of the proposal against the relevant strategic and statutory planning framework, undertakes a merit assessment of the environmental impacts including assessment of site suitability, a risk assessment, and an evaluation of the public interest.

Having regard to the above, the carrying out of the project is justified for the following reasons:

- The assessment of this proposal has demonstrated that the proposed upgrade works will not generate environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site.
- The development will provide a significant new piece of social and educational infrastructure to the area, providing an upgraded school with permanent teaching spaces to accommodate 1,320 students. The provision of a new teaching and education building for the school will improve the quality of education.
- The proposal allows for the provision of new teaching and educational facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on the site or surrounding uses.
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the EP&A Regulation 2000.
- The proposed upgrade works are anticipated to create 44 jobs during the construction phase and 18 full time employment staff during the operational phase.
- The proposed upgrade works will not have a significant impact on any threatened flora or fauna species.
- The proposed upgrade works will not result in any adverse traffic impacts on the surrounding road network, and parking demand associated with the proposed development can be accommodated.

On balance, accounting for site suitability, environmental impacts, risk assessment and key benefits, the proposed development is in the public interest.

Given the above it is considered that the SSD Application has merit and can be supported by the Department of Planning, Industry and Environment and the Minister for Planning and Public Spaces.