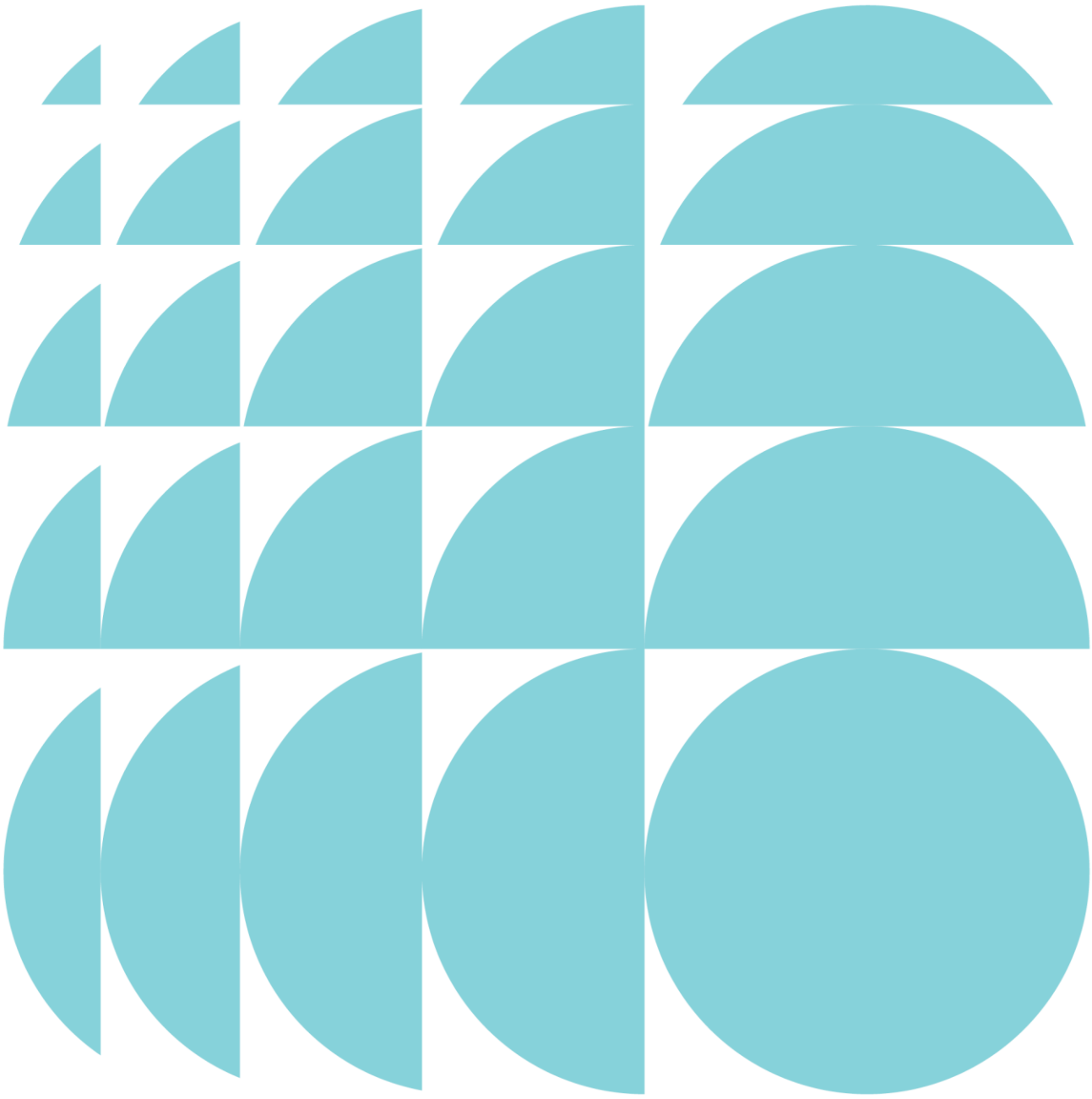
ETHOS URBAN

SSD 8640
Environmental Impact Statement

480 Argyle St, Picton
Picton High School Redevelopment

Submitted to NSW Department of Planning and Environment
On behalf of NSW Department of Education

04 April 2018 | 16734



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This document has been prepared by:



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Daniel West 04.04.2018

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V2 - PUBLIC EXHIBITION	04.04.2018	CP	Daniel West

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C Site Survey
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F Infrastructure Management Plan
Northrop

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SMEC

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TDG

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Ethos Urban

J Phase I Contamination Assessment
Douglas Partners

K Quantity Surveyor's Certificate
Wilde and Woollard

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SMEC

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Northrop

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Ecoplanning

O Aboriginal Cultural Heritage Report
AMAC

P Aboriginal Test Excavation Report
AMAC

Q Acoustic Assessment
GHD

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SMEC

S Concept Sediment and Erosion Control Plan
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T Sediment and Erosion Control Details
Bonacci Group

U Report on Additional Contamination Investigation

Douglas Partners

V Hazardous Building Materials Report

Douglas Partners

W Report on Preliminary Site Investigation with Limited Sampling

Douglas Partners

X Civil Design Report

Bonacci Group

Y Concept Stormwater Management Plan

Bonacci Group

Z Bushfire Assessment

Peterson Bushfire

AA BCA Design Assessment Report

Design Confidence

BB Arboricultural and Tree Management Plan

Horticultural Management Services

CC Report on Preliminary Geotechnical Investigation

Douglas Partners

DD Report on Supplementary Geotechnical Investigation

Douglas Partners

Statement of Validity

SSD Application Details	
Applicant name	NSW Department of Education
Applicant address	35 Bridge Street, Sydney
Land to be developed	Picton High School, 480 Argyle Street, Picton
Proposed development	Redevelopment of Picton High School as described in Section 4.0 of this Environmental Impact Statement
Prepared by	
Name	Chris Patfield
Qualifications	BPlan. MPIA
Address	173 Sussex Street, Sydney
In respect of	State Significant Development Application
Certification	
	I certify that I have prepared the content of this EIS and to the best of my knowledge: it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000; all available information that is relevant to the environmental assessment of the development to which the statement relates; and the information contained in the statement is neither false nor misleading.
Signature	
Name	Chris Patfield
Date	4/04/2018

1.0 Executive Summary

Purpose of this Report

This submission to the Department of Planning and Environment (the Department) comprises an Environmental Impact Statement (EIS) for a State Significant Development (SSD) Application under Part 4 of the Environmental Planning and Assessment Act 1979 (EP& A Act). It relates to the Picton High School Redevelopment. The proposal involves demolition works, the reuse of existing buildings, construction of new school buildings, a new school entry and landscaping works.

The proposed Picton High School Redevelopment is identified as SSD in Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011. Development of educational establishments for the purposes of alterations or additions to an existing school with a capital investment value of more than $20 million is SSD for the purposes of the EP&A Act. As the proposed development will have a capital investment value exceeding $20 million it is SSD.

A request for the issue of Secretary's Environmental Assessment Requirements (SEARs) was sought on 24 July 2017. Accordingly, the SEARs were issued on 17 August 2017 (and reissued on 29 September 2017). This submission is in accordance with the Department's guidelines for SSD applications lodged under Part 4 of the EP&A Act, and addresses the issues raised in the SEARs.

Overview of the Project

The SSD Application seeks approval for the redevelopment of Picton High School, including:

- Necessary early works including demolition of Buildings A-H, L and Q and associated excavation;
- Construction of a two to three storey building located along the central spine of the site connecting with existing retained buildings;
- Retention, repurposing or refurbishment of Buildings I, J, K, M and N;
- Reconfiguration of car and bus drop off / pick up areas, including a new access point from Wonga Road and internal access road;
- Increasing floor space incorporating permanent teaching spaces to accommodate 1,500 students and core facilities for 2,000 students;
- Boundary adjustments; and
- Associated landscaping works throughout the site.

The Site

Picton High School is located at 480 Argyle Street (aka Old Hume Highway), Picton, in the Macarthur Region of south-west Sydney and is approximately 80km south-west of the Sydney CBD and within the Wollondilly Shire LGA. The site is approximately 3km from the Picton Town Centre.

The existing co-educational comprehensive high school was established in 1958 with further upgrades and additions added to the growing school in the 1960's, 1980's and the latest Trade Training Centre in 2011. It is the only public high school in the LGA. The school has grown incrementally since its inception and there are currently more than 1,000 students enrolled in years 7-12.

Picton High School is contained within a single lot legally described as Lot 2 in DP520158 which is 5.691 hectares in area. It is noted that a small portion of the bus bay area is Wollondilly Council land. In addition, works are proposed to parts of Argyle Street and Wonga Road. The site is surrounded by residential development to the north, slopes down to Redbank Creek to the east, adjoins a small light-industrial precinct to the south and agricultural land lies to the west.

Planning Context

Section 6.0 of the EIS considers all applicable legislation in detail. The proposal is consistent with the requirements of all relevant SEPPs. The site is zoned R2 Low Density Residential. The proposal is permissible with consent and meets the objectives of the subject zone.

Environmental Impacts and Mitigation Measures

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

Consultation

Section 5 of the EIS details the consultation that has been undertaken with the various project stakeholders including Wollondilly Council, RMS, Picton High School, Picton Buslines and the general public. The outcomes of the consultation process have been considered in the design of the proposal.

Conclusion and Justification

The EIS addresses the SEARs, and the proposal provides for the redevelopment of Picton High School. The potential impacts of the development are acceptable and are able to be managed. Given the planning merits of the proposal, the proposed development is considered to warrant approval by the Minister for Planning.

2.0 Introduction

This EIS is submitted to the Department pursuant to Part 4 of the EP&A Act in support of an application for SSD.

Development for the purpose of alterations or additions to an existing school with a capital investment value of more than $20 million is identified in Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011. Therefore, as the proposed development exceeds $20 million, the proposal is declared to be SSD for the purposes of the EP&A Act.

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

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

2.1 Overview of Proposed Development

This application seeks approval for the redevelopment of Picton High School, including:

- Necessary early works including demolition of Buildings A-H, L and Q and associated excavation;
- Construction of a two to three storey building located along the central spine of the site connecting with existing retained buildings;
- Retention, repurposing or refurbishment of Buildings I, J, K, M and N;
- Reconfiguration of car and bus drop off / pick up areas, including a new access point from Wonga Road and internal access road;
- Increasing floor space incorporating permanent teaching spaces to accommodate 1,500 students and core facilities for 2,000 students;
- Boundary adjustments; and
- Associated landscaping works throughout the site.

2.2 Background to the Development

Picton High School is currently the only public high school in the Wollondilly Shire LGA. Due to the growing demand for public education in the region, the NSW Government intends to provide additional capacity to the school through its redevelopment.

A formal meeting was held with Wollondilly Shire Council in May 2017 to provide an introduction to the proposed Picton High School Masterplan. Picton High School has been formally consulted during the formation of the concept designs for the proposal. In addition, the project team has discussed the project with community stakeholders including the aboriginal community, fire & rescue, the neighbouring church group, bus company, Picton High School, P&C and the like. In addition to this, information booths will be held at the school and library throughout the project.

2.3 Objectives of the Development

The primary objective of the proposed development is to increase the capacity of Picton High School in order to meet the growing demand for public education in South West Sydney. The proposed development will see a major upgrade of the existing school to accommodate 2,000 students. This will also replace many older buildings nearing the end of their economic life and usefulness with modern educational buildings that will meet the learning needs of the students and be a comfortable working environment for staff.

Supplementary objectives of the proposed development include:

- Create a welcoming atmosphere and pleasant school environment both internally and externally;
- Improve intuitive wayfinding throughout the school grounds; and
- Improve pedestrian safety at school pick up/drop off points.

2.4 Analysis of Alternatives

Strategic need for the proposal

The Picton area is expected to experience substantial student population growth due to new land releases as part of the Greater Macarthur Land Release, which will expand Sydney's metropolitan area.

Picton and its immediate surrounding area is expected to have additional new housing and projected population growth that is generating increased numbers of students and demand for teaching space and facilities to at least 2031. The projected student growth for the region is currently from approximately 3000 students to over 8000 students by 2031.

Picton High School currently services a broad catchment across the entire Wollondilly Shire region. Picton High School is central to this catchment area with the closest alternate public high schools being: Camden High School 24km to the north, Elderslie High School and Elizabeth Macarthur High School 26km to the north and Mount Annan High School 28km to the north.

Picton High School will capture a large proportion of the population growth within the region and this project will help to meet the long term projected increase in the demand for government secondary schooling by expanding the capacity of Picton High School.

Alternative Options

Four options are available to NSW Department of Education in responding to the identified need for accommodating increases in student populations within the Picton region.

Option 1 – Do Nothing

Under the 'do nothing' scenario, the current facilities at Picton High School would not be able to accommodate the projected increases in student numbers. This would likely result in poorer education outcomes, and would compromise health and safety standards as student numbers exceed the capacity of existing infrastructure. This would jeopardise the NSW Government's strategy to develop areas such as the Greater Macarthur Land Release.

Option 2 – Alternative Designs

The Department of Education undertook an analysis of the options available in responding to the need for a redeveloped facility on the site including consideration of the site constraints and the planning regime. The proposed redevelopment has been the subject of a robust design process aimed at creating a facility that meets its functional educational needs and recognises and responds to the context of the school site.

Option 3 – Increase capacity at a different school, or develop a new school

Picton High School is the only public high school in the Wollondilly LGA. To increase the capacity at a different school would continue to place pressure on the capacity of Picton High School due to land releases with close proximity to Picton. As well as the redevelopment of Picton High School, the NSW Government is planning for a new public high school in Wilton – 10km to the south-west of the site. Prior to the development of this new school, Picton High School will be required to accommodate increased demand on capacity prior to the completion of the land release development.

Option 4 – The Proposal

Option 4 involves undertaking the proposed redevelopment as outlined in this SSD application (as described in **Section 4**). The proposal will ensure that a high quality educational facility is provided on the site that responds to the strategic need identified above.

2.5 Secretary's Requirements

In accordance with section 4.39 of the EP&A Act, the Secretary of the Department reissued the requirements for the preparation of the EIS on 29 September 2017 (following an initial issue on 17 August 2017). A copy of the SEARs is included at **Appendix B**.

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

Table 1 – Secretary's Requirements

Requirement	**Location in Environmental Assessment**	
General		
The Environmental Impact Statement (EIS) must be prepared in accordance with, and meet the minimum requirements of clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (the Regulation).	Environmental Impact Statement	
Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.	Section 7	
Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include: • adequate baseline data; • consideration of potential cumulative impacts due to other development in the vicinity (completed, underway or proposed); and • measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment.	Section 6	
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 Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; • an estimate of the jobs that will be created by the future development during the construction and operational phases of the development; and • certification that the information provided is accurate at the date of preparation.	Appendix K	
Key Issues The EIS must address the following specific matters:	**Report / EIS**	**Technical Study**
1. Statutory and Strategic Context – including: Address the statutory provisions contained in all relevant environmental planning instruments, including: • *Mine Subsidence Act 1961;* • *State Environmental Planning Policy (State & Regional Development) 2011;* • *State Environmental Planning Policy (Infrastructure) 2007;* • *State Environmental Planning Policy No. 55 – Remediation of Land;* • *State Environmental Planning Policy No. 64 – Advertising and Signage;* • *Draft Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017;* • *State Regional Environmental Planning Policy – Hawkesbury-Nepean River; and* • *Wollondilly Local Environmental Plan 2011.*	Section 6.1	-

Requirement	Location in Environmental Assessment	
Permissibility Detail the nature and extent of any prohibitions that apply to the development. *Development Standards* Identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.		
2. Policies Address the relevant planning provisions, goals and strategic planning objectives in the following: • NSW State Priorities; • A Plan for Growing Sydney; • NSW Long Term Transport Master Plan 2012; • Sydney's Cycling Future 2013; • Sydney's Walking Future 2013; • Crime Prevention Through Environmental Design (CPTED) Principles; • Healthy Urban Development Checklist, NSW Health; • Greater Sydney Commission's Draft South West District Plan; • Wollondilly Development Control Plan 2016; and • Wollondilly Growth Management Strategy 2011.	Section 6.1	-
3. Built Form and Urban Design • addresses the height, density, bulk and scale, setbacks of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces. • provide a detailed justification of the sustainability of the site to accommodate the proposal and increase in student capacity. • address design quality, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials, colours and Crime Prevention Through Environmental Design Principles. • detail how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	Section 6.2	Appendix A Appendix D
4. Environmental Amenity • detail amenity impacts including solar access, acoustic impacts, visual privacy, view loss, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. • detail any proposed use of the school grounds out of hours (including weekends) and any resultant amenity impacts on the immediate locality and proposed mitigation measures.	Section 6.2	Appendix A Appendix D
5. Transport and Accessibility Include a transport and accessibility impact assessment, which details, but not limited to the following: • accurate details of the current daily and peak hour vehicle, public transport, pedestrian and cycle movement and existing traffic and transport facilities provided on the road network located adjacent to the proposed development; • an assessment of the operation of existing and future transport networks including the bus network and their ability to accommodate the forecast number of trips to and from the development; • details of estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips based on surveys of the existing and similar schools within the local area; • the adequacy of public transport, pedestrian and bicycle networks and associated infrastructure within Argyle Street to meet the likely future demand of the proposed development; • the impact of the proposed development on existing and future public transport infrastructure within the vicinity of the site in consultation with Roads and Maritime	Section 6.3	Appendix H Appendix L

Requirement	Location in Environmental Assessment	
Services and Transport for NSW and identify measures to integrate the development with the transport network; • the identification of suitable infrastructure required to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections (including the potential for traffic signals and/or a round-a-bout at the Wonga Road, Remembrance Driveway and Argyle Street intersection) and the provision of supporting plans that demonstrate compliance with Ausroads Guide to Road Design, Australian Standards and Roads and Maritime Services guidelines; • details of travel demand management measures to minimise the impact on general traffic and bus operations and to encourage sustainable travel choices and details programs for implementation; • the impact of trips generated by the development on nearby intersections, with consideration of the cumulative impacts from other approved developments in the vicinity, and the need/associated funding for upgrading or road improvement works, if required. Traffic modelling is to be undertaken using SIDRA network modelling for current and future years; • the proposed active transport access arrangements and connections to public transport services; • details of any proposed school bus routes along bus capable roads (i.e. travel lanes of 3.5m minimum) and infrastructure (bus stops, bus layovers etc.); • the proposed access arrangements, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones; • measures to maintain road and personal safety in line with CPTED principles; • proposed bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance; • proposed number of on-site car parking spaces for teaching staff, students and visitors and corresponding compliance with existing parking codes and justification for the level of car parking provided on-site; • details of emergency vehicle access arrangements; • an assessment of road and pedestrian safety adjacent to the proposed development and the details of required road safety measures; • service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times), including consideration of the access off Wonga Road (east) for such movements; • in relation to construction traffic: – assessment of cumulative impacts associated with other construction activities (if any); – an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity; – details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process; – details of anticipated peak hour and daily construction vehicle movements to and from the site; – details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle; – details of temporary cycling and pedestrian access during access during construction; – traffic and transport impacts during construction, including cumulative impacts associated with other construction activities, and how these impacts will be mitigated for any associated traffic, pedestrian, cyclists, parking and public transport, including the preparation of a draft Construction Traffic Management Plan to demonstrate the proposed management of that impact.		

Requirement	Location in Environmental Assessment	
6. Ecologically Sustainable Development (ESD) • Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design and ongoing operation phases of the development. • Demonstrate that the development has been assessed against a suitably accredited rating scheme to meet industry best practice. • Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.	Section 6.4	Appendix M
7. Social Impacts Include an assessment of the social consequences of the schools' relative location and decanting activities if proposed.	Section 6.5	-
8. Biodiversity Biodiversity impacts related to the proposed development are to be assessed and documented in accordance with the Framework for Biodiversity Assessment, unless where otherwise agreed by the OEH, by a person accredited in accordance with s142B(1)(c) of the *Threatened Species Conservation Act 1995*.	Section 6.6	Appendix N
9. Aboriginal Heritage • Identify, describe and document the Aboriginal Cultural Heritage values that exist across the whole area that will be affected by the development, which may include the need for surface survey and test excavation. The identifying of Aboriginal Cultural Heritage values should be guided by the *Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECC, 2011)* • Where Aboriginal Cultural Heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW).* The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS. • The EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented in the EIS.	Section 6.7	Appendix O Appendix P
10. Noise and Vibration Identify and provide a quantitative assessment of the main noise and vibration generating sources during construction and operation, 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 the community use of school facilities and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.	Section 6.8	Appendix Q
11. Sediment, Erosion and Dust Controls Detail measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles.	Section 6.9	Appendix R Appendix S Appendix T
12. 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	Section 6.10	Appendix J Appendix U Appendix V Appendix W
13. Utilities • Prepare an Infrastructure Management Plan in consultation with relevant agencies, detailing information on the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure. • Prepare an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.	Section 6.11	Appendix F
14. Contributions Address Council's Section 94A Contribution Plan and/or details of any Voluntary Planning Agreement, which may be required to be amended because of the proposed development.	Section 4.16	-

Requirement	Location in Environmental Assessment	
15. Drainage • Detail drainage associated with the proposal, including stormwater and drainage infrastructure • Detail measures to minimise operational water quality impacts on surface waters and groundwater, especially the ephemeral stream adjacent to the eastern boundary of the site being a tributary of Stonequarry Creek and the Nepean River.	Section 6.12	Appendix X Appendix Y
16. Flooding Assess any flood risk on the site (detailing the most recent flood studies for the project area) and consideration of any relevant provisions of the NSW Floodplain Development Manual (2005), including the potential effects of climate change, sea level rise and an increase in rainfall intensity.	Section 6.13	Appendix X Appendix Y
17. Waste Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.	Section 6.14	Appendix G
18. Construction Hours Identify proposed construction hours and provide details of the instances where it is expected that works will be required to be carried out outside the standard construction hours.	Section 4.13	-
19. Bushfire Address bushfire hazard and if required, prepare a report that addresses the requirements for Special Fire Protection 2006 guidelines.	Section 6.15	Appendix Y
Plans and Documents	**Report**	**Technical Study**
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following: • Architectural drawings (dimensioned and including RLs); • Site Survey Plan, showing existing levels, location and height of existing and adjacent structures / buildings and boundaries; • Site Analysis Plan; • Stormwater Concept Plan; • Sediment and Erosion Control Plan; • Shadow Diagrams; • View Analysis / Photomontages; • Landscape Plan (identifying any trees to be removed and trees to be retained or transplanted); • Preliminary Construction Management Plan, inclusive of a Preliminary Construction Traffic Management Plan detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures; • Geotechnical and Structural Report; • Accessibility Report; • Arborist Report; • Salinity Investigation Report (if required); • Acid Sulphate Soils Management Plan (if required); and • Schedule of materials and finishes.	-	Appendix A Appendix C Appendix X Appendix T Appendix E Appendix L Appendix W Appendix H Appendix AA Appendix BB
Consultation		
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups including local Aboriginal land councils and registered stakeholders,	Section 5.0	-

Requirement	Location in Environmental Assessment	
and affected landowners. In particular, you must consult with: • Wollondilly Shire Council; • Transport for NSW; and • Roads and Maritime Services. Consultation with TfNSW and RMS should commence as soon as practicable to agree to the scope of investigation. 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.		

3.0 Site Analysis

3.1 Site Location and Context

The site is located at 480 Argyle St, Picton within the Wollondilly Local Government Area. Picton is in the Macarthur Region of New South Wales, 80km south-west of Sydney, 30km south-west of Campbelltown and 20km south-west of Camden. The town is located on Stonequarry Creek, a tributary of the Nepean River. The town is accessible via the Old Hume Highway and the Picton Railway Station, located on the Southern Highlands Line.

Picton High School is located approximately 3km south of the town centre, and 2km from the railway station. It is in a semi-rural area.

The site's locational context is shown at **Figure 1**.



Figure 1 – Picton High School Locational Context

Source: Ethos Urban

3.2 Site Description

The site is legally described as Lot 2 DP520158. The land is owned by the NSW Department of Education. The site also consists of a small portion of land as part of the road reserve which is under the ownership of RMS and is managed by Wollondilly Council. This land is within the current bus bay area of the school.

The area of Lot 2 DP 520158 is approximately 56,900 sqm. Lot 2 DP 520158 does not include the area of the Argyle Street road reserve (approximately 750sqm) that forms part of works to the bus bay area. Furthermore, road upgrades are also proposed on landholdings not under the ownership of the Department of Education, including the Wonga Road road reserve (approximately 2,750sqm) and the Argyle Street upgrade area (approximately 3,634sqm), which results in a combined total site area of approximately 64,034sqm. Post subdivision, the size of Lot 2 DP 520158 is to be reduced via a dedication of part of the Argyle Street road reserve approximately 815sqm to RMS and a dedication of the south east corner of the site to Wollondilly Council reducing the lot size further by approximately 650sqm. This results in a site area post-subdivision of approximately 63,869sqm.

It is generally rectangular in shape. A survey plan is located at **Appendix C**. An aerial photo of the site is shown at **Figure 2**.

The site is accessed via the Old Hume Highway/Argyle Street to the bus bay. Towards the rear of the site on the northern boundary are many mature trees. The site is generally flat; however the topography declines significantly within a short distance east of the site towards Stonequarry Creek.



Figure 2 – Site Plan

Source: Ethos Urban and Billard Leece Partnership

Existing buildings on site forming part of Picton High School include the following:

- Block A: Administration
- Block B: Music
- Block C: General learning
- Block D: Computer learning
- Block E: Art/physical education
- Block F: Art
- Block G: Tech and applied science
- Block H: Canteen/toilets

- Block I: Material learning/GLS
- Block J: General learning
- Block K: General learning
- Block L: Science
- Block M: Multipurpose facilities
- Block N: Special education
- Block O: Tech and applied science
- Three storage rooms
- Two covered outdoor areas
- Outdoor recreation facilities including two courts, an oval and cricket nets
- Agriculture facilities

Onsite parking is provided with a capacity of 113 spaces, primarily within a car parking area along the northern boundary of the site.

The existing buildings listed above are shown in an annotated site plan in **Figure 3** below, whilst various photos of the site are shown in **Figures 4-7**.

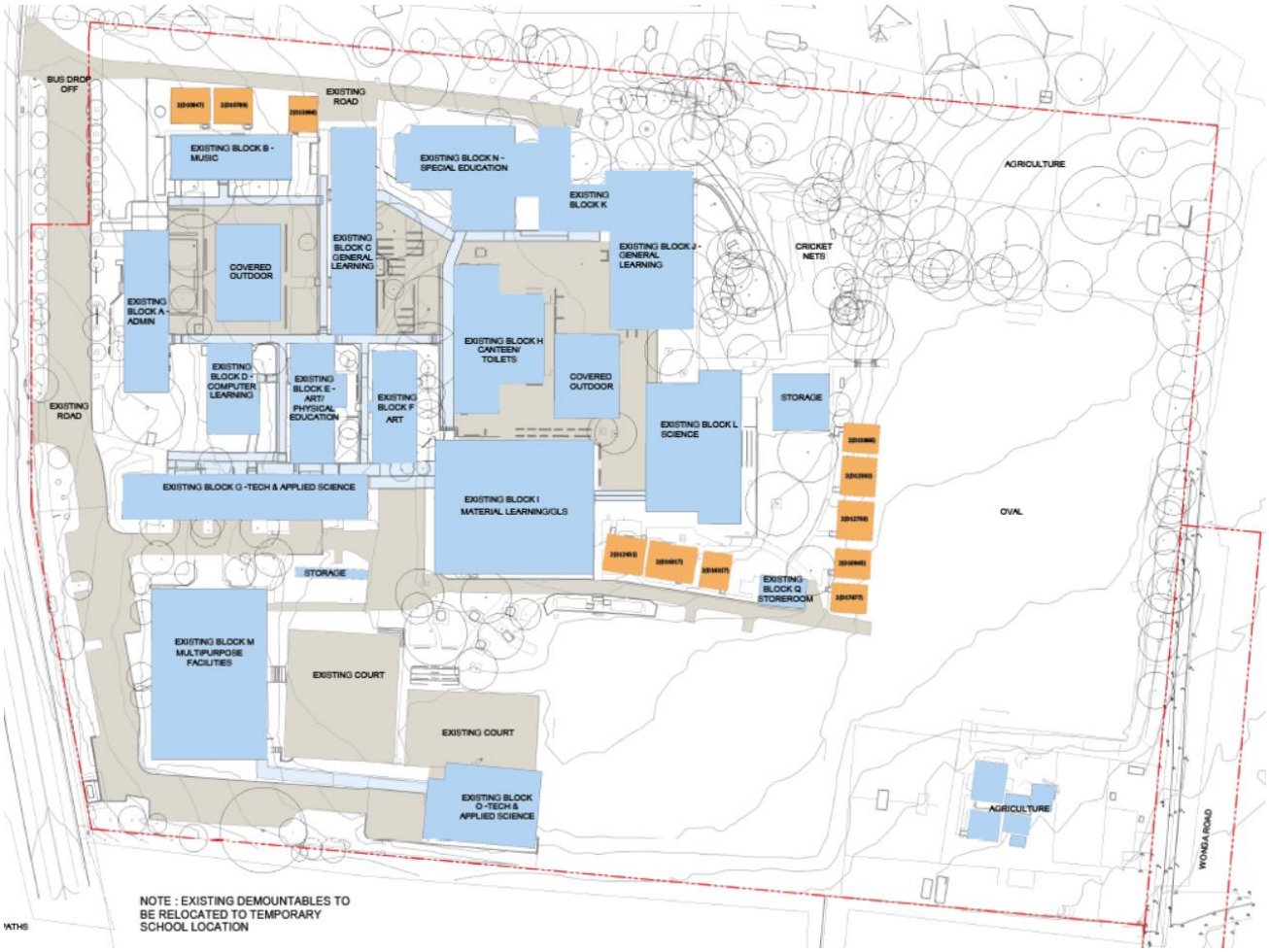


Figure 3 Existing buildings on site

Source: Billard Leece Partnership



Figure 4 – Administration Block A

Source: Ethos Urban



Figure 5 – Multipurpose facilities Block M and court

Source: Ethos Urban



Figure 6 – View across outdoor area towards Block K and J

Source: Ethos Urban



Figure 7 – View across covered outdoor area towards Block A

Source: Ethos Urban

3.3 Surrounding Development

The land surrounding the site is predominantly semi-rural in nature surrounding the town of Picton.

- **To the north:** On the northern boundary of the site is a low density semi-detached residential area two blocks in width. 500m to the north is the Wollondilly Community Leisure Centre, featuring a 50m outdoor swimming pool. Further to the north is generally low density residential areas leading into the town centre of Picton 3km away, and 2km from the Picton Railway station.
- **To the south:** Directly to the south of the site is a small industrial area along Wonga Road, including businesses such as a bus company and environmental management. Further to the south are generally agricultural uses, with a few water reservoirs and areas of vegetation along Argyle Street. The town of Tahmoor is located approximately 4km to the site's south-west, with the Tahmoor Colliery operations (the source of mine subsidence in the area) a further 2km south from the town (i.e. 6km from site).
- **To the east:** The unformed Wonga Road runs along the rear boundary of Picton High School to the east. Already classified as a local road, the unformed part runs approximately 100m along the back of the school boundary from near to the corner boundary of the site. Beyond this, a small clearing of grass precedes a heavily vegetated gully that descends steeply to Stonequarry Creek approximately 300m from the site boundary. Further to the east, the Southern Highlands railway line continues to Douglas Park Station approximately 10km to the site's east near to the Hume Highway.
- **To the west:** To the immediate west of the site across Argyle Street are primarily agricultural allotments. A small industrial area centred on Henry Street and Bridge Street is approximately 300m to the north-west. Two railway lines intersect the land further to the west, including the Southern Highlands line and the decommissioned Picton-Mittagong loop railway line near the town of Thirlmere.



Figure 8 –Picton Town Centre

Source: View Real Estate



Figure 9 – Tahmoor Colliery

Source: Tahmoor Coal



Figure 10 – Wollondilly Community Leisure Centre

Source: Wollondilly Leisure Centre



Figure 11 – Typical residential development in Coachwood Crescent on the site's northern boundary

Source: Google Earth

4.0 Description of the Development

This chapter of the report provides a detailed description of the proposed development. Architectural drawings are included at **Appendix A**.

This application seeks approval for the following development:

- Necessary early works including demolition of Buildings A-H, L and Q and associated excavation;
- Construction of a two to three storey building located along the central spine of the site connecting with existing retained buildings;
- Retention, repurposing or refurbishment of Buildings I, J, K, M and N;
- Reconfiguration of car and bus drop off / pick up areas, including a new access point from Wonga Road and internal access road;
- Increasing floor space incorporating permanent teaching spaces to accommodate 1,500 students and core facilities for 2,000 students;
- Boundary adjustments; and
- Associated landscaping works throughout the site.

A photomontage of the proposed development is shown at **Figure 12** to **Figure 14** below. Note, however, that no signage is proposed within this application.

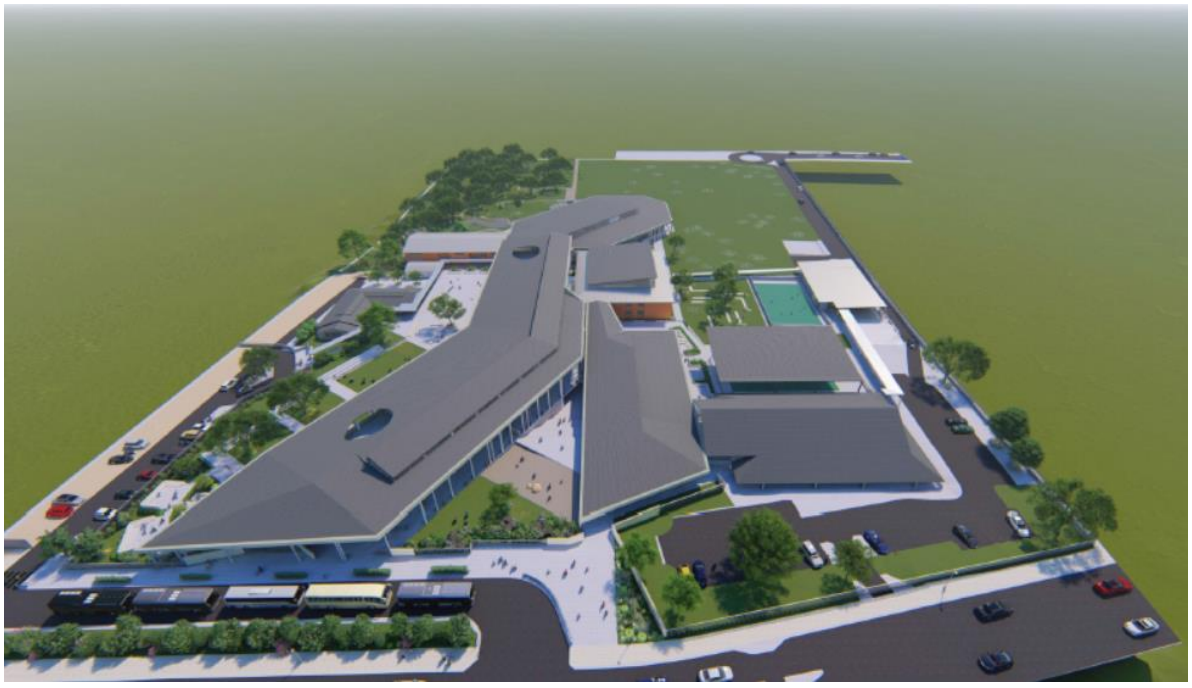


Figure 12 Photomontage of proposed development from above Argyle Street

Billard Leece Partnership



Figure 13 Photomontage of Proposed Development from Argyle Street

Source: Billard Leece Partnership



Figure 14 Photomontage of Proposed Development from within School Boundaries

Source: Billard Leece Partnership

4.1 Development Principles

The planning and design principles adopted for the proposed development respond directly to the *State Environmental Planning Policy (Educational Establishments and Child Care Facilities 2017* (Education SEPP) Design Quality Principles and include:

- **Context, built form and landscape**: Schools should be designed to respond and enhance the positive qualities of their setting, landscape and heritage, including Aboriginal cultural heritage.
- **Sustainable, efficient and durable**: Schools should be designed to be durable, resilient and adaptable, enabling them to evolve over time to meet future requirements.
- **Accessible and inclusive**: Schools should actively seek opportunities for their facilities to be shared with the community and cater for activities outside of school hours.
- **Health and safety**: Good school development optimises health, safety and security within its boundaries and the surrounding public domain, and balances this with the need to create a welcoming and accessible environment.
- **Amenity**: Schools should provide pleasant and engaging spaces that are accessible for a wide range of educational, informal and community activities, while also considering the amenity of adjacent development and the local neighbourhood.
- **Whole of life, flexible and adaptive**: School design should consider future needs and take a whole-of-life-cycle approach underpinned by site wide strategic and spatial planning.
- **Aesthetics**: School buildings and their landscape setting should be aesthetically pleasing by achieving a built form that has good proportions and a balanced composition of elements.

A Design Verification Statement that addresses how the proposed school redevelopment meets each of these design principles has been prepared by the project architects, Billard Leece Partnership, and is available at **Appendix D**.

4.2 Numerical Overview

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

Table 2 – Key development information

Component	Proposal
Site area • Lot 2 DP520158 • Bus Bay Area • Works to Wonga Road • Works to Argyle Street	64,034m^2 • 56,900m^2 • 750m^2 • 2,750m^2 • 3,634m^2
Additional GFA	14,985 m^2
Maximum Height	14.42m
GFA • Existing • Proposed	 • 9,285m^2 • 14,985m^2
FSR[1] • Existing • Proposed	 • 0.16:1 • 0.25:1
Student Population (Years 7-12) • Pre-development • Post-development – core facilities[2] • Post-development – permanent teaching spaces[3]	Student Population (Years 7-12) • 1,000 • 2,000 • 1,500

[1] Taken as a proportion of Lot 2 DP520158 only (i.e. not inclusive of site area related to Argyle St or Wonga Rd)
[2] Core facilities refer to common amenities including library, hall, recreational facilities etc.

Component	Proposal
Boundary Setbacks[4] • North • South • East • West	 • 62.29m • 66.92m • 78.49m • 0m
Car spaces • Visitor • Staff spaces • Informal spaces	137 • 11 • 44 • 82
Proposed trees • 2-2.5m • 2.5-3.5m • 3.5-4.5m • 4.5-6m	74 • 23 • 15 • 19 • 17
Total area of softscape • Garden bed • Turf • Revegetation/Supplementary Planting • Existing Garden Beds	18,940m^2 • 1,907m^2 • 11,245m^2 • 4,083m^2 • 1,705m^2

4.3 Demolition and Site Preparation

The proposed redevelopment will require the demolition of the following buildings:

- Block A: Administration;
- Block B: Music;
- Block C: General learning;
- Block D: Computer learning;
- Block E: Art/physical education;
- Block F: Art;
- Block G: Tech and applied science;
- Block H: Canteen/toilets;
- Block L: Science; and
- Block Q: Storeroom.

In addition to these buildings, two (2) covered outdoor areas are proposed to be demolished, as well as a storage building located at the rear of Block L and five (5) structures in the agriculture facilities. 78 trees are also proposed to be removed, of which only seven are canopy trees. For more information on tree removal, refer to the Arboricultural Assessment and Tree Management Plan at **Appendix BB**.

4.4 Built Form and Urban Design

[3] Permanent teaching spaces refers to classroom space
[4] Setbacks are included with reference to the distance between the site boundary and the nearest proposed new building. Retained existing buildings may be located within a shorter distance of the listed setback.

Proposed new buildings

The proposed redevelopment includes the following new buildings to be built on site:

- Construction of a two to three storey main building located along the central spine of the site, which includes:
  - Canteen
  - Design Technology
  - Executive administration space
  - Student Hub
  - Staff common
  - Science and maths
  - Year 8/9 hub
  - Year 10/11 hub
  - Year 12 hub
- Two storey building connecting to the existing hall, including:
  - Fitness and performing arts

Retention and Refurbishment of Buildings

The proposed redevelopment retains the following buildings:

- Block N – Special Education;
- Block K – Lecture Theatre;
- Block O – Tech and Applied Sciences; and
- PE and general storage shed.

The following buildings are to be retained, and either refurbished or connected to new proposed buildings:

- Block M - Hall/Multipurpose facilities;
- Block I – Music and Hospitality; and
- Block J – General Learning.

Building Height

The tallest building on site will be the roof ridge of the new main building at a height of 228.66 RL. This equates to 14.42m above ground level under the definition of building height in the *Wollondilly LEP 2011* which is the vertical distance from the existing ground level (RL 217.740m) to the highest point of the building.

Building Setbacks

New buildings are proposed within the centre of the site, with significant (i.e. >60m) setbacks provided between the property boundary and the proposed buildings. However, the proposed main building includes a canopy with posts that are located at a nil setback at the western boundary to provide shelter to staff and students alighting buses at the front entrance to the school.

External Materials and Finishes

The exterior of the buildings are to be primarily various shades of grey, with red feature cladding. Ebony bricks and grey cladding are to comprise the majority of the exterior, with many glass windows throughout. The roofs are proposed to be basalt Klip Lock System. The suite of materials and finishes are shown below, as taken from the Architectural Drawings at **Appendix A**.

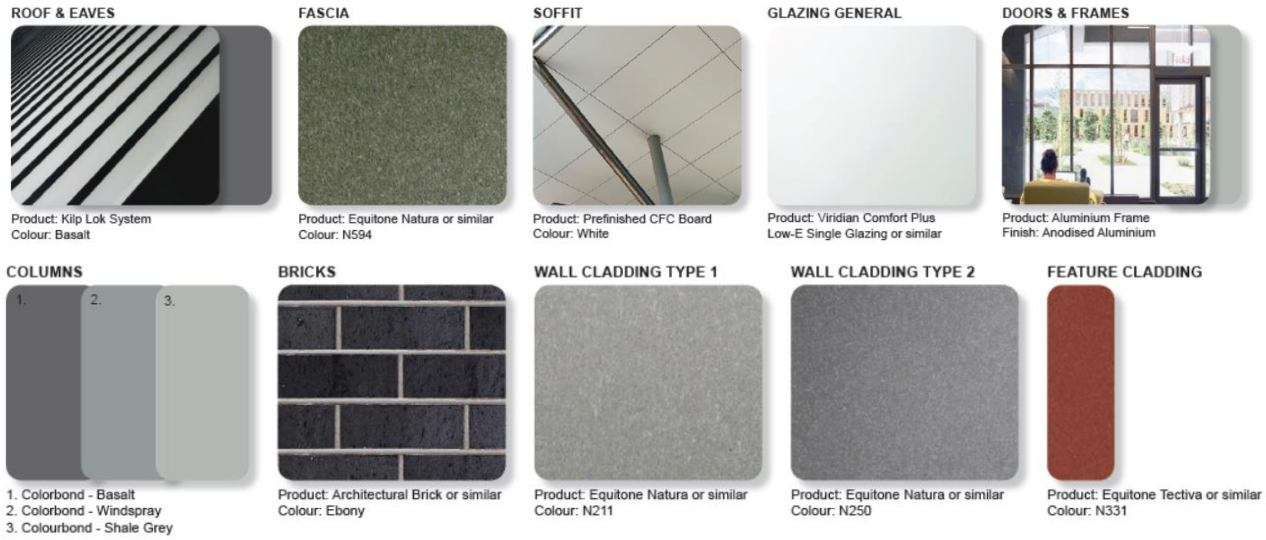


Figure 15 Proposed Materials and Finishes

Source: Billard Leece Partnership

4.5 Landscaping and Public Domain

A Landscape Schematic Design Report has been prepared by Arcadia Landscape Architecture and is available at **Appendix E**. This application includes the following landscape elements:

- Substantial new planting within the school grounds, with 74 new trees proposed;
- Water Sensitive Urban Design (WSUD) elements throughout the school;
- Outdoor classrooms;
- Sustainable elements including a reduction of paved impermeable surfaces and endemic planting;
- Outdoor paving throughout the site;
- An entry forecourt with a feature tree and bench seating;
- Terraced lawns in the north-east of the site;
- Outdoor social hub including sports court;
- Educational trail around the dry creek bed at the lower part of the site; and
- Relocated agriculture facilities.

4.6 New Access Road

A new access will be created via Wonga Road, by extending the existing paper road, which will include the following features:

- An access will run along the southern boundary of the site connecting the car park in the south-western corner of the site to Wonga Road, providing for exit and entry movements;
- Bus stops will be provided on both sides of the road near the school entrance, accommodating up to four buses, to allow for any overspill bus parking in the future; and
- A turning facility will be provided for buses at the connection with the site, to prevent buses from having to access the site.

4.7 Pedestrian Access

The primary pedestrian access to the school will be along Argyle Street. This includes pedestrians walking along Argyle Street from alternate destinations, and pedestrians being dropped off by buses.

The existing pedestrian crossing facility on Argyle Street has been removed as its previous location required pedestrians to cross the internal bus parking area. In order to accommodate pedestrian movements across Argyle Street, two new pedestrian crossings are proposed to the north of the site and between the two southern crossovers.

A pedestrian footpath is proposed on the western side of Argyle Street in the vicinity of the school in order to facilitate pedestrian movements for staff and students parking on the western side of the road, and the pedestrian crossing facilities.

In order to facilitate pedestrian movements from the bus stops proposed along Wonga Road, pedestrian footpaths will be provided across the school access to ensure pedestrians are able to cross in a safe environment.

4.8 Vehicular Access and Parking

Car parking for the school will continue to be provided via the car parking area along the northern boundary of the site, which will continue to gain access via the existing crossovers. The southern parking area will gain access via a new entry crossover from Argyle Street, and will exit the school via a new access point at Wonga Road at the south-eastern corner of the site.

An additional 37 informal car parking spaces will be provided along the new accessway that will link the existing car park with Wonga Road. Including the 45 informal parking spaces in the north west of the site, a total of 82 informal spaces are to be provided.

Changes to the parking layout will result in the provision of 10 visitor parking spaces and 43 formal parking spaces for staff will be provided in the southern parking area. In addition to the above, 2 accessible formal spaces are to be provided – 1 in the visitor formal parking area and 1 in the staff formal parking area. This results in a total of 137 parking spaces.

A taxi drop-off area has been provided within the northern car parking area, which will service the taxi associated with the Special Needs class.

A loading area is provided at the southern end of the site adjacent to the Metals Block, with service vehicles to access the site via the new Wonga Road access.

4.9 Boundary Subdivision

In order to ensure the appropriate future management and maintenance of the school, and adjacent infrastructure including roads, the boundary of Lot 2 DP520158 is proposed to be amended. These amendments include:

- Dedication of the entire bus bay area from the Department of Education to Council/RMS; and
- Dedication of the proposed rear access point to Wonga Road from the Department of Education to Council/RMS.

These boundary amendments are captured in the image below.

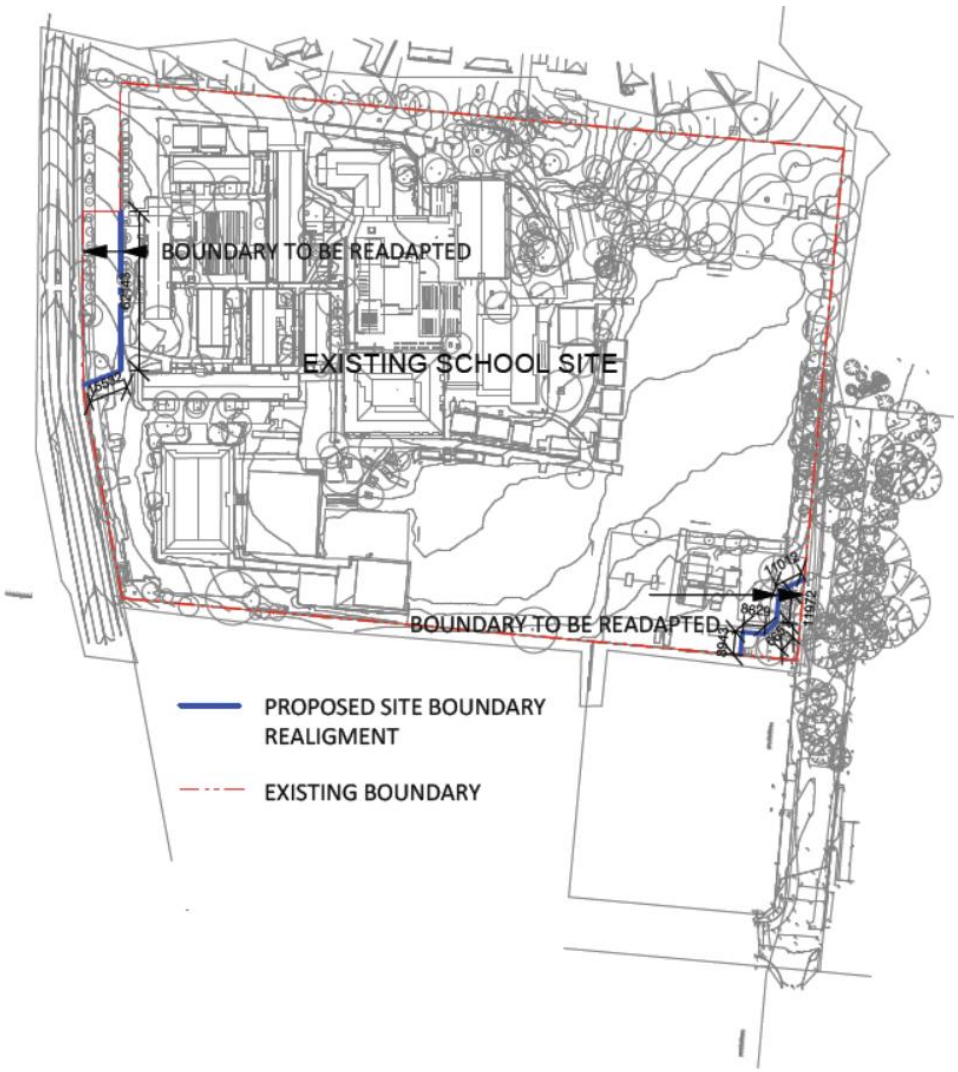


Figure 16 Proposed Boundary Subdivision

Source: Billard Leece Partnership

4.10 Environmentally Sustainable Development

The project is required to meet the design principles of the Educational Facilities Standards Guidelines and, consequently, targets a 5-star Green Star Design Review As Built v1.1 (self-assessed) Rating. The significant design initiatives to be implemented include:

- A strong commitment to energy efficiency with the project design to demonstrate a 40% energy reduction over a standard construction building of its type;
- A highly efficient façade system designed to minimise heat gain into the building while promoting the entry of daylight into classroom spaces;
- Selection of low impact material and of certified materials;
- The use of highly efficient water fixtures and fittings, alongside a waterless heat rejection system;
- Implementation of renewable energy source in the form of solar PV cells to reduce peak electricity demand and reduce energy costs;
- Integration of the site into the surrounding bushland and community; and
- Conditioning spaces through naturally ventilation and an energy efficient in slab heating system, ensuring good indoor air quality and mitigating the health risks that come with water-based heat rejection.

4.11 Infrastructure and Services

The proposed development requires upgrades to the existing infrastructure and services network. This includes:

- A new electrical substation with 1500kVA transformer and 2000Amp/phase capacity;
- Connection of a new Telstra telecommunications private fibre;
- Upgrade of the water system meter to feed the redeveloped site; and
- Upgrade of the gas meter and regulator.

Further to the above, there is a potential for need to upgrade the Sydney Water sewer main depending upon sewer main capacity, which will be confirmed by Sydney Water within the Notice of Requirements further to the Section 73 application to be made to Sydney Water upon receipt of the DA.

All other infrastructure and services are capable of being supplied by the existing networks. Further information is available in the Infrastructure Management Plan at **Appendix F**.

4.12 Construction Staging

Construction activities are expected to occur over eighteen (18) months and will include the following activities:

- Demolition of existing buildings/structures – 1 month;
- Clearing works – 1 month;
- Excavation and bulk earthworks – 6 months; and
- Construction works – 10 months.

The commencement of construction is subject to the approval of this SSD application, however, is anticipated to commence prior to the end of 2018 if approved.

Consent for the construction of the temporary school to accommodate the existing school population during the construction of the main works is separate to this SSD application. A subsequent stage regarding the refurbishment of the existing hall is to occur after this main works package, and will be subject to a separate consent.

4.13 Construction Hours

Proposed construction hours are to be in accordance with Wollondilly Council standard conditions, which include:

- Monday to Friday: 7.00am – 5.00pm;
- Saturday: 8.00am – 4.00pm; and
- No work on Sundays.

Weather permitting, it is not expected that there will be any instances of works that will be required to be carried out outside the standard construction hours. If unforseen delays impact on the construction hours and work is required to occur outside of these hours, a modification application will be made to the Department at the appropriate time.

The school will remain in operation between 8am-3pm during construction within a temporary school in the south-west corner of the site.

4.14 Community Use of School Facilities

The design has considered the opportunity for shared use facilities with the broader community. The public forecourt designed to encourage access for community onto the campus with a separate secure line into the school.

This enables facilities designed around the forecourt to be accessible to community groups outside of school hours without compromising security to the rest of the campus. From the forecourt and secure carpark, community can access multi-function facilities in the Fitness and Performing Arts building for a variety of activities including meetings, formal gatherings, dance and drama as well as access to the multi-purpose hall for larger events.

The library can also be accessed from the public forecourt as part of an extended hours program to allow public use of library facilities including technology, meeting rooms, interview spaces, small seminars and general research opportunities.

Support facilities such as toilets are accessible for public use across all buildings as not all facilities are likely to be open at the same time. General access can be provided through a controlled process managed by the school.

The following table highlights potential community uses of Picton High School facilities and includes the facilities which can be used, the types of use appropriate for each facility and the hours of operation for each facility.

Table 3 Indicative Community Uses of School Facilities

School Facilities	Types of Functions/Activities	Indoor/Outdoor	Occupancy	Hours of Operation
Hall	• Children's services e.g. Out of School Hours Care (OSHC) • Community Language Schools • Dance, music or drama lessons • Community education and training • Community productions • Community meetings • Sporting events • Vacation care	Indoor	Max 200 approx	School Hours: 8:00am – 4pm After School Hours 4-00pm – 10:00pm (Times are indicative only and will have to be confirmed with school)
Performance/ Fitness Hub Performance Workshop	• Children's services e.g. Out of School Hours Care (OSHC) • Community Language Schools • Dance, music or drama lessons • Community education and training • Community productions • Community meetings • Vacation Care	Indoor	Fitness and Performance Hub: Max 120 approx. Performance Workshop Max: 75 approx	School Hours: 8:00am – 4pm After School Hours 4-00pm – 10:00pm (Times are indicative only and will have to be confirmed with school)
Fitness Lab	• Community education and training • Sporting events • Sports training	Indoor	Fitness Lab: Max 80 approx	School Hours: 8:00am – 4pm After School Hours 4-00pm – 10:00pm (Times are indicative only and will have to be confirmed with school)
Student Hub Library	• Children's services e.g. Out of School Hours Care (OSHC) • Community Language Schools • Community education and training • Community productions • Community meetings • Vacation care	Indoor	Student Hub Max: 100 approx	School Hours: 8:00am – 4pm After School Hours 4-00pm – 10:00pm (Times are indicative only and will have to be confirmed with school)
Public Forecourt	• Community education and training • Community productions • Community meetings	Outdoor	Public Forecourt Max: 400 approx	School Hours: 8:00am – 4pm After School Hours 4-00pm – 10:00pm (Times are indicative only and will have to be confirmed with school)

4.15 Operational Waste Management

A Waste Management Plan (WMP) has been prepared by SMEC and is available at **Appendix G**. With respect to operational waste, the WMP proposes:

- **General Strategy:** The overall strategy is to provide a waste management system that:
  - Minimises the generation of waste through avoid-reduce-reuse-recycle policies;
  - Will provide the opportunity to educate students in waste management and resource recovery;
  - Meets the relevant regulatory guidelines;
  - Is 'hands on' but safe, (students/staff segregate their wastes into different receptacles at source);
  - Provides flexibility to be adapted to future developments in management practices; and
  - Is cost effective
- **System Components:**
  - Purchasing policies, education programs;
  - Internal bins (e.g. 30L) at source (two or three bin system for most areas, potentially more bins in kitchen and office areas);
  - External Bins (240L) per area(s), inside Bin Enclosures;
  - Special Bins for special purposes (e.g. workshop, kitchen);
  - Bin Holding Areas, for the storage of full bins and 'Stand-by Bins'; and
  - Bin Collection Areas, where bins are collected during non-student times.
- **The Segregation & Collection Process**
  - Waste is placed by staff/students into separate internal bins (paper/cardboard, other recyclables comingled, remaining general waste);
  - From the internal bins the material is transferred to external 240L bins located at assigned External Bin Enclosures by cleaning staff;
  - On collection day, full bins will be placed in the Collection Area (TBD) by cleaning staff from where they will be emptied by a suitable vehicle, outside student attendance times; and
  - The actual filling rates for all collection containers will be monitored, and appropriate bin numbers, volumes and collection frequencies will be adopted. It may be necessary to initiate additional, extraordinary collections to service extraordinary events held at the site.

4.16 Contributions

The relevant contributions plan for the site is the *Wollondilly Development Contributions Plan 2011*. The underlying purpose of the plan is to enable Council to require a contribution towards the provision, extension or augmentation of public amenities and public services that will, or are likely to be, required as a consequence of development within the LGA.

Whilst Council's Plan does not automatically exclude NSW Government developments or educational establishments from the payment of section 7.12 contributions, an exemption is considered appropriate in this instance. The Department of Education is a government agency which relies on government grants to provide new facilities for both the school community, and the general public. The levying of a development contribution would divert a portion of these public funds, which have been specifically provided to fund a school redevelopment, to local services without any direct nexus to the impact on those services.

The inherent public character of the proposed development is in contrast to a strictly commercial development where a full levy might be considered reasonable. The nature of the development means that the infrastructure which Council typically seeks to levy for will largely be provided by the school for use by staff, students and the general public. This includes upgrades to surrounding infrastructure that are being negotiated with Council to be provided by the proposed development, including:

- Upgrade to the existing bus bay and access requirements from Argyle Street; and
- New rear access point to the school from Wonga Road.

These negotiations are being undertaken separately to the *Wollondilly Development Contributions Plan 2011* and are deemed to be sufficient for the proposed development.

The Department of Education's position is supported by the provisions of Circular D6, as discussed below.

Crown applications – Department of Planning Circular D6

Again, it is noted that Council does not automatically grant exemptions to NSW Government Developments, however the Department of Planning's Circular D6 sets out the reasons why Crown developers (as a similar applicant) should be able to seek exemptions from division 7.1 payments.

While the Department of Planning's Circular D6 *"Crown Development Applications and Conditions of Consent"* was formulated in 1995, it still remains the guiding document in relation to Crown applications and development contributions. The effect of this circular is that, where the applicant is a Crown authority and the development is for Educational Services, no contributions should be collected for open space, community facilities, parking, and general local and main road upgrades. As the proposed development is for the redevelopment of an existing school, it is clearly development for the purposes of Educational Services.

The school is utilised for its facilities by not only the existing school population, but also the general community of Picton. This includes the use of facilities such as the multi-purpose hall. The availability of these amenities and services on the site, which are maintained by the Department of Education, reduces the demand on public amenities outside the school campus.

Taking into account the significant public benefits which the proposed development, and the presence of a redeveloped school generally, will provide, and the positive impact that this development will have on local and regional infrastructure, it is clear that no development contributions should be levied against this development. As stated in Circular D6:

> *Crown Activities providing a public service or facility lead to significant benefits for the public, in terms of essential community services and employment opportunities. Therefore, it is important that these essential community services are not delayed by unnecessary disputes over conditions of consent. These activities are not likely to require the provision of public services and amenities in the same way as developments undertaken with a commercial objective.*

5.0 Consultation

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

A summary of the consultation undertaken to-date with Council, the community and relevant agencies is provided below. Several consultants have undertaken additional consultation with relevant parties during the preparation of their reports; including Aboriginal cultural heritage consultation (refer to **Section 6.7** for further information).

The collaborative design process for the school commenced with a Picton High School Project Reference Group meeting involving an introduction to New Learning Environments (education specialists), some of the trends and research affecting the design of new learning spaces and an introduction to the educational space planning process.

School staff were then invited to provide feedback on pedagogy/space ideas via NLE's Learning Environments Analysis Tool (LEAT) in the form of an online survey. Community participation was not invited. There were 77 survey participants, who represent a substantial proportion of the PHS staff - the following response distribution was identified. Staff were also asked to complete a PARK exercise that helps participants identify those elements of the school that they wish to Preserve, Add, Remove and Keep Out.

Feedback workshops were also conducted by NLE, with BLP and Mace. Small groups of staff from teaching faculties, support and administration, selected students and the school executive were invited to give their views via targeted questions and free discussion.

Billard Leece Partnership has also held meetings with the Department and the Office of the Government Architect as a matter of courtesy, and also to update these stakeholders about the design development of the project.

The table below provides a summary of the consultation undertaken on the project to date with other key stakeholders in addition to the above.

Table 4 – Consultation Activity Summary

Stakeholder	Date	Consultation Activity / Meeting	Meeting Aim	Meeting Outcome
Wollondilly Council	10.05.2017	Council introduction	To provide representatives from Wollondilly Shire Council an introduction to the proposed Picton High School Masterplan and discuss items identified as requiring Council engagement.	• Council presented plans and initial feedback received • Fire services were discussed and the need to provide emergency access/egress • Civil engineering was discussed and the opportunity to seal Wonga Road • Impact on neighbours was discussed • Consultation with RMS was recommended
Wollondilly Council, RMS	14.07.2017	Traffic meeting	Further discussion around the existing traffic issues that create safety issues at the current school entrance and exit arrangements towards finding a solution to mitigate the issues in the proposed redevelopment design.	• Traffic statistics and reports were reviewed • Lot boundaries were discussed and redefining the boundaries to have the bus stop area in a single zone was to be the best solution • Ongoing maintenance of the bus zone was discussed but not resolved • Existing arrangements regarding access and parking were requested to be assessed by the project team.
Picton Buslines	17.08.2017	Picton Buslines Meeting	To update Picton Buslines about the proposed amendments to the Bus Bay and their capacity to service the proposed redevelopment	• Picton Buslines preferred to have a clear separation between cars and bus pick up/drop off zones • Discussion about the proposed bus drop off/pick up arrangements including taxi services for special education.

Stakeholder	Date	Consultation Activity / Meeting	Meeting Aim	Meeting Outcome
Wollondilly Council	30.08.2017	Concept update	To provide Wollondilly Council with an update on the Concept Design Development of Picton High School.	• Council was updated on the project, including changes since previous meeting • Consultation process was discussed, including further collaboration with Council • Issues discussed include traffic, transport, parking, site contamination, visual impact etc.
Wollondilly Council	02.11.2017	Wollondilly Council Consultation	To provide Wollondilly Council with an update on the Schematic Design Development of Picton High School	• Council was updated on the project, including changes since previous meeting • Access and planning pathways for Wonga Road were discussed • Issues discussed include height, access
Wollondilly Council	10.01.2018	Wollondilly Council Consultation	To provide Wollondilly Council with an update on the proposed Picton High School design intent prior to finalisation of the SSD Planning Application to the Department of Planning and Environment	• Design development discussed • Issues discussed include building height, traffic planning and a request to incorporate an animal enclosure on Council land
RMS	15.01.2018	Pre-lodgement advice	Letter providing comments from RMS regarding pre-lodgement advice	• A range of comments were raised by RMS in their pre lodgement advice. For a response to each of the matters raised, refer to the Traffic Impact Assessment at **Appendix H**.
Picton Buslines	24.08.2018	Picton Buslines update meeting	To ensure that Picton Buslines are informed of the design development. The project team presented the proposed draft schematic design and temporary school design for comment and input	• Design update was given • The project team reviewed the bus bay on Argyle Street to minimise conflict between buses and other vehicles • Picton Buslines consulted about the design of the Wonga Road bus facilities, which have informed the design.

The proposed development will be placed on public exhibition for 30 days in accordance with clause 83 of the *Environmental Planning and Assessment Regulation 2000*. During the public exhibition period Council, State agencies and the public will have an opportunity to make submissions on the project.

6.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposed DA. It addresses the matters for consideration set out in the SEARs (see Section 4.0).

The Mitigation Measures at **Section 6.0** complement the findings of this section.

6.1 Relevant EPIs, Policies and Guidelines

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

Table 5 – Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines

Instrument/Strategy	Comments
Strategic Plans	
NSW State Priorities	NSW State Priorities are twelve high-level priorities for the State, being: • Creating jobs; • Delivering infrastructure; • Driving public sector diversity; • Improving education results; • Improving government services; • Improving service levels in hospitals; • Keeping our environment clean; • Making houses more affordable; • Protecting our kids; • Reducing domestic violence reoffending; • Reducing youth homelessness; and • Tackling childhood obesity. The proposal seeks to redevelop an existing school and create additional educational capacity in south-western Sydney. The proposal will therefore contribute to the provision of infrastructure, as well as jobs and education, thereby contributing to strengthening the local and regional economy.
A Plan for Growing Sydney	One of the key directions of the Plan is to plan for education and health services to meet Sydney's growing needs. The proposal is consistent with Direction 1.10, which aims to plan for education and health services to meet Sydney's growing needs. The proposed development will enhance the provision of education infrastructure in the region, thereby supporting the actions of A Plan for Growing Sydney.
NSW Long Term Transport Master Plan 2012	The proposed development is consistent with the Master Plan as it supports the provision of education facilities in proximity of existing bus services. The proposal supports a reduced reliance on private vehicles, assisting in improving the modal split between cars and public transport. The bus interchange at Picton High is a major interchange for the surrounding region.
Sydney's Cycling Future 2013	The Department of Education is supportive of students and staff using bikes as a mode of transport. However, with respect to providing cycling facilities, a travel mode survey revealed that the majority of students and staff arrive by bus or private vehicle to the school, with minimal bicycling trips recorded. Therefore, no additional cycling infrastructure is proposed under this development.
Sydney's Walking Future 2013	Whilst the development does not propose any walking infrastructure on the site, the school design has been carefully planned to minimise conflict between vehicles and pedestrians, particularly in the upgraded bus bay area. Walking paths connect the school to the main town of Picton.
Crime Prevention Through Environmental Design (CPTED) Principles	A CPTED report has been completed and is available at **Appendix I**. The purpose of this report is to assess the elements and fear of crime that may be associated with the proposed redevelopment of Picton High School. The Crime Risk Assessment Rating of the proposed development is rated in the 'low' category. Further information is provided in **Section 6.2.6**.
Healthy Urban Development Checklist, NSW Health	The proposed development is consistent with the HUD checklist in that it: • Provides recreation facilities within the school campus which promotes and encourages

<table>
<tr><th>Instrument/Strategy</th><th>Comments</th></tr>
<tr><td></td><td>physical activity and exercise;
• Is highly accessible by public transport and is encouraging of active transport;
• Has been designed having regard to preventing crime and promoting a sense of security for future students and teachers having regard to the CPTED principles;
• Provides access to green space and natural areas associated with the oval to the east of the site;
• Will respond to existing community needs and current gaps in educational facilities in the region; and
• Has been designed to minimise disturbance and health effects associated with noise, odour and light pollution, and has been designed to address the potential for hazards (both natural and manmade) and address their mitigation.</td></tr>
<tr><td>Greater Sydney Commission's Draft South West District Plan</td><td>The draft Western City District Plan was released in October 2017 and replaces the draft South West District and West District plans, released in November 2016.

The vision for the Western City District is to become the Western Parkland City, primarily focussed on the growth of a new CBD at the Western Sydney Airport – Badgerys Creek Aerotropolis.

Under the Plan, Planning Priority W3 refers to providing services and social infrastructure to meet people's changing needs. It recognises that a projected increase in school-aged children of 43 per cent necessitates planning for new and more innovative use of existing schools. The NSW Department of Education estimates that an extra 77,978 students will need to be accommodated in both government and non-government schools in the District by 2036.

The Picton High School redevelopment works to assist this Planning Priority by increasing the capacity of an existing school to accommodate 2,000 students. Further, it helps meet the directions of a 'city supported by infrastructure' and 'a collaborative city', by helping to deliver much needed school infrastructure in south-west Sydney in a collaborative way, delivered in consultation between the Department of Education, the Department of Planning, Wollondilly Council and other agencies including RMS.</td></tr>
<tr><td colspan="2">State Legislation</td></tr>
<tr><td>EP&A Act</td><td>The proposed development is consistent with the objects of the EP&A Act, in particular:
• it promotes the social welfare of the community;
• it allows for the orderly and economic development of land; and
• it is development for public purposes and will facilitate the delivery of community services.

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

As required by Clause 7(1)(d)(v) of Schedule 2, the following additional approvals will be required in order to permit the proposed development to occur.
<table>
<tr><th>Act</th><th>Approval Required</th></tr>
<tr><td colspan="2">Legislation that does not apply to State Significant Development</td></tr>
<tr><td>Coastal Protection Act 1979</td><td>N/A</td></tr>
<tr><td>Fisheries Management Act 1994</td><td>N/A</td></tr>
<tr><td>Heritage Act 1977</td><td>N/A</td></tr>
<tr><td>National Parks and Wildlife Act 1974</td><td>N/A</td></tr>
</table></td></tr>
</table>

Instrument/Strategy	Comments
	Native Vegetation Act 2003 — N/A Rural Fires Act 1997 — N/A Water Management Act 2000 — N/A Legislation that must be applied consistently Fisheries Management Act 1994 — No Mine Subsidence Compensation Act 1961 — Yes (refer below) Mining Act 1992 — No Petroleum (Onshore) Act 1991 — No Protection of the Environment Operations Act 1997 — No Roads Act 1993 — No Pipelines Act 1967 — No
Mine Subsidence Act 1961	As the site is within a mine subsidence district, approval from the Mine Subsidence Board is required for the proposed development under Section 15 of the *Mine Subsidence Act 1961*. The Mine Subsidence Board have been contacted regarding this process, and advised that they will be referred this application post lodgement for their determination. Additional consultation has been undertaken with the relevant mining company (Glencore) as discussed in **Section 5**.
Biodiversity Conservation Act 2016	Refer to **Appendix N**.
SEPP 55 – Remediation of Land	The Phase I Environmental Site Assessment prepared for the site (see **Appendix J**) demonstrates the site is suitable for the proposed development.
SEPP (Infrastructure)	Provisions of the SEPP (Infrastructure) relating to Education have since been transferred to the Education SEPP as of 2017. It is noted that the development will require referral to RMS in accordance with Clause 104 of SEPP (Infrastructure).
SEPP (State and Regional Development)	The aim of the policy is to identify development that is State Significant Development (SSD). Pursuant to the SRD SEPP a project will be SSD if it falls into one of the classes of development listed in Schedule 1 of the SEPP. Development that has a capital investment value of more than $20 million for the purpose of alterations or additions to an existing school is identified as SSD The works have a CIV of over $20 million, and so qualifies as State Significant Development. A Quantity Surveyor's certificate prepared by Wilde and Woollard confirming the total CIV is included with the application (**Appendix K**).
SEPP (Educational Establishments and Child Care Facilities) 2017	Under Clause 35 (6) of the Education SEPP, the consent authority must take into consideration (a) the design quality of the development when evaluated in accordance with the design quality principles set out in Schedule 4 and (b) whether the development enables the use of school facilities (including recreational facilities) to be shared with the community. In accordance with Clause 35 (6) (a), a Design Verification Statement has been prepared by Billard Leece Partnership (**Appendix D**) that responds to each of the design quality principles set out in Schedule 4. A meeting has also been held with the Office of the Government Architect to ensure that these design quality principles have been met. With regards to Clause 35 (6) (b), refer to **Section 4.14**. Under Clause 42 of the Education SEPP, development consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted. This clause is used to justify a minor height breach in the centre of the site with reference to the Wollondilly LEP 2011 (refer to discussion on the LEP below).
SEPP 64 – Advertising and Signage	No signage is proposed under this application and therefore, the provisions of SEPP 64 do not apply.

Instrument/Strategy	Comments	
State Regional Environmental Planning Policy – Hawkesbury-Nepean River	The aim of this plan is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. No aspect of the proposed development will have any adverse impact on the river system due to the nature of use and environmental considerations assessed throughout the remainder of **Section 6** of this EIS. Development for the purposes of a school or education facility is deemed permissible under clause 8 of the SEPP.	
Local Planning Instruments and Controls		
Wollondilly Local Environmental Plan 2011 (WLEP 2011)	Clause 2.3 – Zone	The proposed educational establishment is permissible with development consent in the R2 Low Density zone.
	Clause 4.3 – Height of Buildings	The site has a maximum building height of 9m under the WLEP 2011. The proposed development has a maximum building height of 14.42m. Whilst this exceeds the maximum height under the LEP, clause 43 of the Education SEPP states that consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted. Notwithstanding the above, the height breach is considered justified as it relatively minor, it is located in the centre of the site, and will have no impact on the amenity of neighbouring properties with regards to solar access, privacy or view loss.
	Clause 4.4 – Floor Space Ratio	Not applicable.
	Clause 5.10 – Heritage Conservation	There are no heritage items on the site, nor is it in a heritage conservation area. The closest heritage item is located 400m to the south (Koorana Homestead).
	Clause 7.1 Essential Services	The development is capable of being supplied by essential services, as confirmed by the Infrastructure Management Plan available at **Appendix F**.
	Clause 7.2 Biodiversity Protection	The site is not identified as being on sensitive land relating to biodiversity.
	Clause 7.3 Water protection	This clause does not apply, as the subject site is not identified as 'sensitive land' on the Natural Resources – Water Map.
	Clause 7.4 Flood planning	Refer to **Section 6.13**.
	Clause 7.5 Earthworks	The proposed development will not include bulk earthworks. The proposal will involve minor excavation associated with footings for the proposed new main building. Any replacement fill, which is not anticipated to be substantial
	Clause 7.6 Development within a designated buffer area	This clause does not apply, as the subject site is not identified as being part of an 'odour buffer area; on the Odour Buffer Area Map.
Wollondilly Development Control Plan 2016	Section 3.10 of the Wollondilly Development Control Plan refers to Educational	DCPs are not a matter for consideration for SSD applications. Notwithstanding this, consideration has been given the key

Instrument/Strategy	Comments	
	Establishments. The objectives and controls are shown below. **Objectives** • To provide for access to and within the site by a variety of modes of transport including pedestrians, cyclists, public transport, service and emergency vehicles, • To ensure an appropriate traffic circulation system and availability of a variety of transport modes to allow safe drop off and collection of students, staff and visitors. **Controls** • Secure storage must be provided for bicycles, skateboards, scooters and the like in addition to any requirements under Part 3 of this volume. Such storage must be provided at the rate of $20m^2$ per 100 students. The storage space must not be narrower than 2 metres in each and every direction. • Bus stops for schools must ensure that the bus can fully leave the travel lane during loading and unloading of passengers. • If there is a footpath/cycle way/share way within 100m of the proposed development then the development then a link from the development to that network must be provided in the form of a concrete share way in accordance with Council's Design Speciation.	controls outlined in DCP 2016. A travel mode survey revealed that the majority of students and staff arrive by bus or private vehicle to the school, with minimal bicycling trips recorded. Therefore, no additional cycling infrastructure is proposed under this development, including storage space. The bus bay has been designed to ensure that buses can fully leave the travel lane during loading and unloading of passengers. A link to adjacent footpaths is provided as part of the proposed development.
Wollondilly Growth Management Strategy 2011	The Growth Management Strategy is a policy document with associated mapping which contains key directions and principles to guide proposals and Council decisions on growth. It includes 22 key policy directions, none of which relate to the development or design of educational establishments.	The only comment made in the GMS in relation to schools is that travel behaviour in Wollondilly is dominated by cars in part due to the lack of local schooling opportunities especially for high school students. The improvement of the Picton High School infrastructure under this proposal is deemed to improve this outcome by promoting the use of buses to access the school.

6.2 Built Form and Urban Design

6.2.1 Height

The maximum height of the proposed development is 14.42m (new main building roof ridge). The maximum height of building control under the WLEP 2011 is 9m. Whilst this exceeds the maximum height under the WLEP 2011 by 60%, clause 43 of the Education SEPP states that consent may be granted for development for the purpose of a school that is State significant development even though the development would contravene a development standard imposed by this or any other environmental planning instrument under which the consent is granted.

Notwithstanding the above, an assessment against the objectives of Clause 4.3 of the WLEP 2011 is provided in the table below in order to adequately justify the breach of height control.

Table 6 Assessment of the proposal against the objectives of Clause 4.3 of the WLEP 2011

4.3 (1) The objectives of this clause are as follows:	
(a) to minimise the impact of new development on neighbouring properties and the streetscape with regard to bulk, overshadowing, privacy and views.	The proposed development meets this objective as: • the location of the height breach of the WLEP 2011 is in the centre of the site in excess of 50m from the northern site boundary, and has no visual impact from the streetscape or any neighbouring properties; • all proposed development fronting the streetscape and neighbouring properties is compliant with the WLEP 2011 height limits; and • none of the proposed development (height compliant or otherwise) will have any adverse impact on overshadowing, privacy or view impact on the streetscape or any neighbouring properties.
(b) to maintain a size and scale of development that is compatible with the existing and emerging character of the locality.	The proposed development meets this objective as: • there is an existing building that breaches the height control which is proposed to be retained. Block I is being retained, with works proposed including enclosing the internal courtyard with a roof. The proposed main building exceeds the Block I roof line by 1.5m. Therefore, the proposed development is compatible with existing heights on site; • the height transitions from its tallest point in the centre of the site to the residential areas to the north; • whilst the proposed main building is larger than neighbouring development in terms of size and scale, this floorspace is primarily distributed horizontally rather than vertically, and is appropriate for a land use such as a school which differs in form and function to neighbouring residential development.
(c) To ensure that the height of the buildings is compatible with the landscape and environmental constraints of the land.	The proposed development meets this objective as: • the height breach of the WLEP 2011 is due to topographical features of the site. The site slopes downwards as it moves east from Argyle Street. This slope allows for a two storey street frontage with a central three storey element, stepping back to a two storey built form toward the rear of the site following the natural contours of the land. Whilst this built form is appropriate for the longitudinal sloping east west axis of the site, the 9m height limit descends with the topography, resulting in a breach in the centre of the site whilst the roof line from the street is retained. • the school's design therefore utilises the natural gradient and allows for equitable access to all areas of the site with the incorporation of minimal ramps and a single central lift.

Furthermore, there is precedent to allow school developments to exceed height standards in local environmental plans, including for the 'Inner Sydney High School' located on Cleveland Street, Surry Hills – which was approved prior to the formal gazettal of the Education SEPP. In this example, the proposed development had a building height of 58.1m, whereby the applicable control was 9m (or 9.9m with a 10% design excellence bonus) and was supported by a Clause 4.6 request to justify the significant contravention. In its assessment report, the DPE acknowledged the substantial public benefits associated with a new school and considered the proposed height (and FSR) to be well justified in terms of the objectives of both the development standards and can be supported.

In the circumstance of Picton High School, the height breach is therefore considered justified as:

- it is being submitted after the gazettal of the Education SEPP, which allows the DPE to grant development consent for a development that contravenes a development standard imposed by a LEP;
- the proposal meets the objectives of Clause 4.3 of the LEP;
- the location of the height breach means that it will have no material impact to any adjoining property; and
- the height breach will allow for significant public benefit associated with the delivery of a redeveloped public school to meet the demand of a growing student population in the region.

6.2.2 Density, Bulk and Scale

The proposed development seeks approval for the use of an additional 14,985m^2 of floor space. It is noted that no FSR control applies within the Wollondilly DA and therefore density, bulk and scale is assessed on a merits basis.

The proposed buildings of two to three storeys are consistent with the existing school development. Moreover, the maximum height of the proposed development is within the centre of the site aligning with the gradient of the land. This ensures that the development, when viewed from a public space, is of a complementary bulk and scale to the existing development, as assessed in **Table 6** above.

6.2.3 Site Layout

The main building being through the centre of the site ensures a minimal impact on adjacent residential properties. The design has taken advantage of the natural contours, with the proposal for a two storey street frontage with a central three storey element, stepping back to a two storey built form toward the rear of the site. The central level provides connections into upper levels of retained buildings and through the incorporation of voids, stairs and a lift fully integrate the old and new development.

The proposed layout is anticipated to be more welcoming to staff and students from the primary access point, being the bus bay, with a new canopy connecting to the main building to ensure that paths of travel are protected from inclement weather.

Reconfigured access points, including the new Wonga Road entry have been designed to minimise conflict between pedestrians and vehicles, in addition to minimising conflict between buses and other vehicles.

6.2.4 Streetscape and Setbacks

The development's relationship with the streetscape will result in an overall positive change from the existing situation, by providing a more welcoming and inviting forecourt for staff, students and visitors alike. The majority of the development is concentrated in the centre of the site – a significant distance from any boundary.

The most sensitive boundary in terms of visual impact is the northern boundary, considering the number of residential properties on its edge. A setback of more than 60m to the nearest proposed building ensures that there is no impact on any of these properties in terms of privacy loss, view loss, or overshadowing. The proposed buildings are no closer than existing buildings to the northern property boundary.

The western boundary has a 0m setback due to a canopy which fronts the bus bay area. It is noted that no setback controls apply to the proposed development, as DCPs are not a matter of consideration for SSD applications. Notwithstanding this, the canopy is considered to have a vital role to play in ensuring an amenable path of access under cover from the bus bay to the main school facilities.

6.2.5 Amenity Impacts

Overshadowing

No adjoining property is to be overshadowed as a result of the proposed development. Refer to shadow diagrams in **Appendix A**.

Visual and Acoustic Privacy

All new buildings will be a minimum of 60m from the nearest residential or commercial neighbouring property. There are not anticipated to be any visual privacy issues due to the siting and scale of the development.

As assessed in **Section 6.8**, the proposed noise generation as a result of the proposed development is projected to be in accordance with existing guidelines, assuring minimal impact on the acoustic privacy of adjoining properties.

View Loss

There are not anticipated to be any impacts in relation to view loss as a result of the proposed development. All proposed buildings are set back behind the existing building line (with the exception of the western setback, which

does not neighbour any properties). A collection of photomontages are included within the Architectural Plans at **Appendix A**, which demonstrate that the proposed development is not anticipated to have minimal impact on the existing nature of the streetscape in terms of views from public places.

6.2.6 Crime Prevention Through Environmental Design (CPTED)

A CPTED Assessment has been prepared by Ethos Urban and is available at **Appendix I**. The purpose of the report is to assess the elements and the fear of crime that may be associated with the proposed redevelopment of Picton High School. A summary of the assessment and the proposed mitigation measures are included below.

Assessment
The CPTED Assessment reviewed the Site's context and issues including the following:

- **Nature of recorded crime in the area**: The site is not located within proximity of any high-density crime 'hotspots', however break and enter non dwelling and malicious damage to property hotspots are identified in the Picton town centre.
- **Surveillance**: The concept scheme for the redevelopment provides high levels of natural surveillance over nearly all parts of the school and promotes long sight-lines.
- **Lighting and Technical Supervision**: A lighting strategy is considered necessary should the school be used after hours for school and non-school related activities.
- **Territorial Reinforcement:** Overall, the use of the school and the introduction of a greater number of students and teachers overtime will substantially increase the territorial reinforcement of the site.
- **Environmental Maintenance:** Given the proposed development incorporates significant landscaping, effective environmental maintenance will be critical in achieving the perceived safety of the school and immediately surrounding area.
- **Activity and Space Management:** Numerous educational and sporting uses can be facilitated by the proposed development, which promotes the dynamic use of the Site.
- **Access Control**: Access control along the perimeter of the school grounds via appropriate fencing and other materials (such as walls etc) and clear access/egress points with high visibility, natural surveillance and effective guardianship is a key component to ensuring a controlled and safe school environment.
- **Design, definition and designation**: The design of the proposed development clearly articulates the intended use of space, resulting in minimal area of unclear definition and purpose.

Based on the above, the Crime Risk Assessment Rating of the proposed development is rated within the 'low' category.

Recommendations

The following recommendations were made with respect to the CPTED Assessment:

Surveillance

- Ensure opportunities for natural and incidental surveillance are maintained through effective lighting, access control and environmental maintenance.
- Ensure that all proposed landscaping does not create concealment opportunities and restrict sightlines within the site and to the entrances to the school grounds. As such, planting within the proposed development should be maintained as follows:
  - For shrubs and ground cover – not exceed a height of 700mm above ground level at maturity.
  - For trees – the underside of a canopy should exceed 2m from ground level at maturity.
  - Planting that has a mature height of between 700mm-2m should ideally be avoided or contained to areas not requiring clear sightlines or natural surveillance.
- Ensure clear sight lines from the administration building to the main front entrances and approaches.

Lighting and Technical Supervision

- Consult a qualified lighting engineer to ensure the correct lighting is provided to meet (and ideally exceed) minimum Australia and New Zealand Lighting Standards, to entrances, pathways, courtyards and the exterior of buildings to improve surveillance and minimise opportunities for vandalism.
- Lighting uniformity is essentially in outdoor lighting to promote consistent light levels and the perception of safety and security. As such, a target minimum lighting uniformity level of 0.4 Uo is recommended for outdoor lighting used within the school grounds (exc. lighting for sporting fields/courts). Lighting should also be designed to minimise light spill and pollution to adjoining properties, particularly residential properties.
- All lighting detail should be in accordance with the Australian Standards and relevant Council policy.
- All lighting is recommended to have a minimum Colour Rendering Index (CRI) of 60. Motion sensor lighting is also considered appropriate within the school grounds.
- The Department of Education security requirements for secondary schools shall be implemented including: CCTV network and security system controlled by on-site communications room (preferably in administration building), intruder alarm system. The CCTV footage shall be recorded and kept for a minimum of 30 days.
- It is recommended that a security consultant with a Class 2A licence under the Security Industry Act 1997 is engaged to provide specific advice on placement, installation, monitoring and maintenance of the CCTV network.

Territorial Reinforcement

- Secure fencing and signage is recommended to delineate and separate any publicly accessible portions of the site (i.e. oval, courts) from the core school areas.
- School appropriate perimeter fencing to ensure clear physical and visual delineation of school and non-school land.
- Ensure that car parking areas are restricted and locked to ensure cars cannot enter the grounds outside of school hours.
- Preparation of signage strategy including way finding signage to reinforce visitor's perception of safety and legibility of the development. Also advisory signage at all entrances to the school grounds is recommended including a notice of entering school grounds and that all visitors must report to the administration building.

Environmental Maintenance

- Ensure the landscaping does not create concealment opportunities and does not restrict sightlines to/from the development and the surrounds. Additionally, the environmental condition should not facilitate a breach of access control.
- Ensure a prompt response is incorporated within environmental maintenance procedures, particularly in respect to dumping, graffiti and vandalism.
- The environmental maintenance procedures of the school should be reviewed regularly to ensure their ongoing effectiveness.
- Use high quality materials for construction to lessen the likelihood of damage and help to reduce maintenance costs.

Activity and Space Management

- The use of the school buildings and grounds afterhours and on weekends by external educational and sporting organisations should be appropriately managed and controlled to ensure the spaces within the school grounds do not become unsafe environments during these after-hours activities. In this regard, management procedures/plans are recommended to be prepared and implemented.
- The school grounds are recommended to be secured after hours.
- Separate school operating hours and after hours security management plans/procedures should be prepared and implemented.

Access Control

- It is recommended that the perimeter of the site be fenced and pedestrian and vehicle entrance/exit points be clear and able to be secured (via gates etc.). Further fencing to control access to the core of the school is suggested to prevent unauthorised after-hours access to closed areas of the school after hours.
- Provide restricted access keys or the like to the secure gates/doors at the entrance/exit points of the site to prevent unauthorised entry outside of school hours.
- Secure access to buildings and classrooms afterhours is recommended. In particular classrooms and storage areas with valuable equipment must be secured appropriately.
- Fire exits are for emergency use only and doors should be alarmed to alert security. These exits should be brightly lit and free of obstructions to ensure good sightlines to these doors.

Design, Definition and Designation

- Maintain the current design definition demonstrated in the proposed development. Ensure clarity of ownership and management are clearly understood by users of the development.

6.3 Transport and Accessibility

A Traffic and Accessibility Impact Assessment has been prepared by TDG and is available at **Appendix H**. The purpose of the assessment was to assess the traffic and parking implications of the proposed school capacity increase. A summary of the assessment and the proposed mitigation measures are included below.

Assessment

Traffic and parking surveys have been undertaken in the vicinity of the site, which shows a peak site trip generation demand for a total of:

- 248 vehicles in the AM peak, 63% arrivals, 38% departures;
- 204 vehicles in the PM peak, 30% arrival, 70% departures;
- 17 to 18% of trips involve bus movements.

Interpretation of the AM peak period data indicates an average daily traffic volume of about 11 to 12,000 vehicles per day on Argyle Street immediately north of the site frontage.

In addition, a travel mode survey has been undertaken for the existing student and staff population to determine the use of alternative transport modes to access the site. The results of this survey are captured in the table below, indicating a significant proportion (approximately two thirds) of student arrivals were by bus.

Table 7 Mode of Travel Survey

Mode of travel	Student totals	Student mode split %	Staff totals	Staff Mode Split %
Walk	13	6.3%	1	1.6%
Bus	140	68.3%	0	0.0%
Train	1	0.5%	0	0.0%
Bicycle	1	0.5%	0	0.0%
By car – dropped off in the morning	46	22.4%	0	0.0%
Passenger in another student's car	2	1.0%	0	0.0%
Passengers in a car driven by a member of staff	2	1.0%	2	3.2%
Car as a driver	0	0.0%	59	95.2%
Other	0	0.0%	0	0.0%
Total Respondents (apparent number in class)	205	100.0%	62	100.0%

Based on the above survey results, the school currently generates a minimal number of walking and cycling trips, with the majority of students and staff arriving to school by bus or private vehicles. The walking and cycling trips generated by the school are therefore expected to continue to be minimal. As such, the existing cycling and pedestrian infrastructure is adequate. Notwithstanding this, it is proposed to provide a pedestrian footpath along the western side of Argyle Street to facilitate pedestrian movements between the proposed pedestrian crossing facilities along Argyle Street. The proposed design provides a clear entrance to the school by these modes.

A detailed assessment of the road network has included a SIDRA analysis of the school driveways and the intersection of Argyle Street with Wonga Road. The analysis concluded that the surrounding road network will experience an increase in traffic in conjunction with the increased traffic movements generated by the school as it reaches capacity. The Wollondilly Development Contributions Plan indicates that Argyle Street is proposed to be upgraded to a four land road, which is expected to largely mitigate the impacts of the increase in traffic. It is also noted that the Argyle Street / Wonga Road intersection would need to be upgraded prior to the school reaching capacity. Based on discussion with Council, it is understood that this would likely be in the form of a roundabout. Furthermore, it is proposed to provide a right turn bay for vehicles turning into the school from Argyle Street, designed in accordance with the relevant guidelines and standards.

No public bus facilities are provided within the vicinity of the site. Picton Buslines has been informed of the project and a meeting was held to discuss the impacts to the existing bus routes. The company has confirmed that they will provide additional services as required in the future. In addition, the comments from Picton Buslines have been accommodated into the design of the school.

The proposed design provides a number of amendments to the layout of the Argyle Street bus stop for the school in order to improve safety and efficiency. In addition, another bus stop will be provided at the rear of the site via Wonga Road.

Based on the parking analysis undertaken, the school will generate an on-street parking demand of 161 spaces. Given the additional access via Wonga Road and its proximity to the front of the school, it is likely/expected that a number of staff and students will choose to park in this area, or further to the north of the school along Argyle Street. The parking demand outside of the existing parking survey area is 66 spaces. A total of 137 parking spaces are proposed to continue to be provided on-site, including:

- 11 visitor parking spaces within the northern car park;
- 44 staff spaces in the existing south-western car park; and
- 82 informal parking spaces within the northern car parking area and along the new accessway accessed via Wonga Road.

With regards to traffic safety, there is no evidence of a recurrent, persistent or adverse road crash history that would raise a particular local road safety concern. With regards to pedestrian safety, currently pedestrians are required to cross the road and then cross the internal bus stop area. Therefore, a pedestrian crossing facility has been provided to the north and south of the access to prevent this manoeuvre. Fencing will be provided between the accesses to prevent pedestrians from continuing to attempt this manoeuvre. Clear pedestrian paths are provided within the site, connecting with the visitor parking and taxi drop-off area.

Access by service vehicles will be provided via Wonga Road. A swept path evaluate demonstrates that vehicles up to 8.8m in length are able to enter and exit the site in a forward direction. As such, the loading area is able to accommodate the vehicles expected to use this facility.

Overall, it is concluded that the proposed redevelopment of the school can be accommodated within the surrounding traffic and parking environments, subject to recommendations made within the report and expected upgrades to the road network.

Mitigation Measures

TDG recommended the development of a Traffic Management Plan. This has been prepared in accordance with the recommendation and discussed further below.

A Construction Traffic Management Plan has been prepared by SMEC and is available at **Appendix L**. The purpose of the report is to provide a draft management plan for the project to safely manage vehicular, cyclist and pedestrian traffic and minimise any disruption to existing traffic conditions in accordance with legislation, policies, guidelines, and best practice during the demolition and construction phase of the project. A summary of the assessment and the proposed mitigation measures are included below.

The following recommendations have been made by SMEC with respect to the proposed development:

- Restrict vehicles to left-in from Argyle Street and left-out to Argyle Street;
- No right turn signs to be installed for vehicles existing site to Argyle Street;
- Wonga Road to be considered as an alternative point of egress to allow vehicles to turn right from Wonga Road to Argyle Street to head north. Road alignment and sight distances to be checked for this option;
- The existing internal driveway for school buses shall be retained for the movement of heavy vehicles during the construction phase; and
- Vehicle Movement Plans (VMPs) including site layout for each stage of works to be developed by contractor.

6.4 Ecologically Sustainable Development (ESD)

An ESD report has been prepared by Northrop and is available at **Appendix M**. The report outlines how the proposed redevelopment of Picton High School has incorporated economic, social and environmental sustainability measures to produce progressive learning spaces that ensure the wellbeing and comfort of students and occupants. A summary of the assessment and mitigation measures are provided below.

Assessment

The project is required to meet the design principles of the Educational Facilities Standards Guidelines (EFSG) and, consequently, targets a 5-star Green Star Design Review & As Built v1.1 (self-assessed) Rating.

The sustainability initiatives that are being implemented to address the EFSG requirements and Green Star pathway include:

- A strong commitment to energy efficiency with the project design to demonstrate a 40% energy reduction over a standard construction building of its type;
- A highly efficient façade system designed to minimise heat gain into the building while promoting the entry of daylight into classroom spaces;
- Selection of low impact material and of certified materials;
- The use of highly efficient water fixtures and fittings, alongside a waterless heat rejection system;
- Implementation of renewable energy source in the form of solar PV cells to reduce peak electricity demand and reduce energy costs;
- Integration of the site into the surrounding bushland and community; and
- Conditioning spaces through natural ventilation and an energy efficient in slab heating system, ensuring good indoor air quality an mitigating the health risks that come with water-based heat rejection.

6.5 Social Impacts

Assessment

The proposed development will provide a significant piece of social infrastructure with core facilities for approximately 2,000 students. The design and capacity increase of the redevelopment is anticipated to have positive impacts on the educational standards of the region.

It is intended that the incorporation of the natural environment into the learning environment through outdoor classrooms will provide an aesthetically enjoyable experience, reduce stress, and improve concentration within

outdoor learning and social settings. A diverse series of stimulating and inspiring outdoor classrooms will provide students and teachers regular access to the extended natural amenity provided under the landscape plans.

The proposed development is anticipated to create 68 jobs created in consultancy and construction activities over a 36 month period. This is anticipated to have additional social benefits for the region in terms of providing adequate employment away from strategic centres identified in the draft District Plans.

Picton High School is the only public high school within the Wollondilly LGA. As discussed in **Section 2.4**, to not invest in the redevelopment of this school would require students unable to be catered for under the existing infrastructure to travel significant distances to the nearest alternative school. Given the increase in housing development near to the Picton region, the proposed redevelopment is anticipated to have positive social outcomes in ensuring that local residents have access to high quality educational facilities.

The school will remain in operation during construction 8am-3pm within a temporary school in the south-west corner of the site. Approval for this temporary school is not sought under this application. It is not anticipated that any student will be required to seek alternative education establishments throughout the construction period.

The consequence of the above arrangement is that students and staff will be subject to construction impacts of the proposed development, including noise and vibration. A noise and vibration assessment is provided below at **Section 6.8**. Mitigation measures regarding these impacts are discussed below.

Mitigation Measures

Whilst the proposal has significant social benefits, the following mitigation measures are recommended to ensure that the operation of the school during construction periods is not compromised:

- Ensure that major noise emissions such as demolition occur outside of standard school hours, such as the holiday period; and
- Restrict access to the construction site in order to ensure the health and safety of staff and students is preserved.

6.6 Biodiversity

A Biodiversity Assessment Report (BAR) has been prepared by Ecoplanning and is included at **Appendix N**. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

The BAR satisfies the requirements of the SEARs in that it is prepared by an Accredited BioBanking Assessor under Part 7A of the TSC Act, and is consistent with the Framework for Biodiversity Assessment (FBA) prepared by the Office of Environment and Heritage.

One native vegetation type was identified in the subject site and is consistent with Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain (PCT849). This community is a threatened ecological community (TEC) listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) (NSW SC 2014) and the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) (CoA 2010). Grey Box - Forest Red Gum grassy woodland is found along the eastern perimeter and in north eastern corner of the subject site. A majority of the site consist of cleared land ‘exotic pasture/infrastructure’, including ovals, buildings, footpaths and carparks. The vegetation present onsite mostly consists of planted ‘non-indigenous’, particularly surrounding the buildings in the west of the subject site.

Direct impacts to the ecological values of the development site are limited, as a majority of the development is associated with the refurbishment and construction of buildings in developed areas or will directly impact on cleared land ‘exotic pasture/infrastructure’ or planted ‘non-indigenous’ vegetation. Native vegetation along the southern and south-eastern boundary will be removed during construction of the temporary school in Stage 1. The total direct impact area is 0.07 ha.

The majority of vegetation along the eastern boundary will be retained and protected during construction of adjacent structures for the temporary school. The native vegetation in the northeast will be modified through use of an

education trail, playing fields and Agricultural Plot. The educational trail is proposed to meander through the native vegetation in the north east of the subject site. The education trail, playing fields and Agricultural Plot will not require the removal of native canopy species, although will modify native the groundlayer. The total impact area of the partially clearing for these components is 0.46 ha, which has been assessed using the FBA (OEH 2014).

The future management of the remaining native vegetation within the subject site is likely to be consistent with current management activities of grazing and/or mowing. This is likely to result in further impacts to the ecological values of the site, which may reduce the species richness, cover and abundance native groundlayer species. Furthermore, with an increased number of students, this area may be subject to increased foot traffic and trampling of native groundlayer and germinating midstorey species. As such, credits have been calculated based on a reduction in vegetation quality, rather than complete clearing.

The total number of ecosystem credits required is 8 credits.

Mitigation Measures

The following mitigation measures were recommended by Ecoplanning:

- Indirect impacts of the proposed development such as erosion and water quality impacts will be managed through the development of a Construction Environmental Management Plan;
- Appropriate pre-clearance protocols during the removal of canopy trees are to be put in place at the time of construction;
- An appropriate erosion and sedimentation control plan should be put in place; and
- Offsetting of unavoidable impacts caused by the development must be applied by requiring 8 ecosystem credits.

6.7 Aboriginal Heritage

An Aboriginal Cultural Heritage Report has been prepared by AMAC and is included at **Appendix O**. This report has been informed by an Aboriginal Test Excavation Report (**Appendix P**). A summary of the assessment and proposed mitigation measures are provided below.

Assessment

Test excavation was undertaken over four days 22/01/18 – 25/01/18. The programme was conducted under the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales and consisted of the excavation of 14 test trenches (50cm x 50cm).

The soil profile was found to be consistent throughout the study area. It is clear and observable that the A1 horizon was found to be absent in majority of the study area, however an A2 horizon was evident but was found to be reworked. The topsoil across the study area was found to be redeposited and heavily disturbed.

No Aboriginal objects and/or deposits or features of cultural significance were identified during the programme of test excavation. Therefore, no further investigation is warranted, and works may proceed with caution.

The site is therefore found to be of nil-low archaeological significance this is on account to the test excavation resulting in no Aboriginal objects and/or deposits of cultural or archaeological significance being located. The soil was found to be heavily disturbed with evidence of being reworked and/or redeposited.

Note that in reference to the above, there is a mandatory 28-day period for the Aboriginal stakeholders to comment on the findings of the report. A final stakeholder approved version of the report shall be issued at the close of this period. Should any changes be required as a result of the exhibition process or Aboriginal stakeholder comment, they will be included at this stage. However, the SEARs states that additional documentation of consultation with Aboriginal people must only be made in the EIS if Aboriginal Cultural Heritage values are identified. Considering no Aboriginal Cultural Heritage values were identified during the assessment, this is considered to have addressed the SEARs.

Mitigation Measures

The following recommendations have been made by AMAC:

- Consultation with the registered Aboriginal stakeholders should continue. Stakeholders have been given the opportunity to comment on the recommendations of this report and these comments are included in this report;
- An Aboriginal Cultural Heritage Management Plan should be devised as a final document for the study area as State Significant Development (SSD) status (SSD #8640), in order to manage any Aboriginal archaeological and cultural constraints that may arise;
- Archaeological test excavation in accordance with Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010) revealed no Aboriginal archaeological objects or deposits: the development as shown (Figures 4.1 – 4.6) should be allowed to 'proceed with caution';
- After this and before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site, as to the status of the area and their responsibilities in ensuring preservation of the said area. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development;
- If any Aboriginal archaeological deposits and/or objects are located during the development, then the following should take place;
  - All work is to cease in the immediate vicinity of the deposits and/or objects
  - The area is to be demarcated
  - OEH, a qualified archaeologist and the participating RAPs are to be notified.
- Should any human remains be located during the following development;
  - All excavation in the immediate vicinity of any objects of deposits shall cease immediately;
  - The NSW police and OEH's Enviroline be informed as soon as possible:
  - Once it has been established that the human remains are Aboriginal ancestral remains, OEH and the relevant Registered Aboriginal Parties will identify the appropriate course of action.

6.8 Noise and Vibration

An Acoustic Assessment has been prepared by GHD and is included at **Appendix Q**. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

The main noise generating sources during construction are to include the following plant and equipment captured in the table below.

Table 8 Construction Noise Generating Sources

Plant and equipment	Sound power level (dBA)
Excavator	108
Jackhammer	121
Air compressor	103
Bulldozer	113
Concrete pump	112
Crane	108
Front end loader	114
Grader	112
Vibrating roller	110
Scraper	114

Plant and equipment	Sound power level (dBA)
Truck	110
Concrete truck	107
Hand tools	105
Welder	105

The magnitudes of construction noise levels are dependent on the duration of construction, the type of equipment, location of activities, the surrounding environment's background noise levels and the weather conditions during construction. Notwithstanding this, GHD have generated conservative construction noise levels that predicts the worst case 15 minute scenario, which may not represent the actual noise emission experienced by the community throughout the entire construction period.

This assessment concluded that the predicted noise levels are predicted to exceed the noise management levels during the standard construction hours. 8 sensitive receivers are expected to experience noise levels above the highly affected noise level of 75 dBA.

Traffic noise impacts due to construction traffic are not expected as noise levels along the construction traffic routes are not predicted to significantly increase road traffic noise levels.

The main vibration generating sources during construction are to include the following plant and equipment captured in the table below.

Table 9 Construction Vibration Generating Sources

Equipment	Peak particle velocity source levels (mm/s)
Roller	5 to 7 at 10m
Dozer	2.5 to 4 at 10m
Excavator	2.5 at 8m
Grader	2.5 at 8m

Safe working distances for vibration activities have been identified for standard structures. No buildings have been identified within the safe working distances. There is the potential for minor human comfort vibration impacts at residences directly adjacent to construction works.

The main noise generating sources during operation are captured in the table below, which are based on a range of assumptions (further detail provided within the Acoustic Assessment).

Table 10 Operation Noise Generating Sources

Scenario	Assessment period	Noise level, dBA
Mechanical plant	Daytime	85 dBA SWL
PA system and period alarm	Daytime	85 dBA SWL
School hall concert special event	Evening	90 dBA internal SPL

An assessment has also been conducted in relation to the worst case scenarios relating to community use of school facilities as outlined in **Section 4.14**. The assessment has indicated that the predicted noise levels comply with the noise emission requirements and should not adversely affect the acoustic amenity of the neighbouring residents.

Based on the assumptions in the report, operation of the school is predicted to comply with the *Noise Policy for Industry* (EPA, 2017) noise criteria.

Noise levels are not predicted to increase by 2 dBA due to traffic generation from the operation of the Project and would meet the *Road Noise Policy* (DECCW, 2011) criteria for residents along Argyle Street.

Mitigation Measures

The following mitigation measures have been recommended by GHD in relation to noise during the construction phase:

- Noise generating construction activities should be undertaken in accordance with the *Interim Construction Noise Guideline* (DECC, 2009). The standard hours for construction work should be in accordance with the Guideline:
  - 7:00 am – 6:00 pm Monday to Friday
  - 8:00 am – 1:00 pm Saturdays
  - no work on Sundays or Public Holidays.
- Work outside normal hours should only comprise:
  - the delivery of materials outside normal hours requested by police or other authorities for safety reasons
  - emergency work to avoid the loss of lives and/or property
- Residences within 500 m of the site should be notified as to the timing and duration of the construction works and provided with a contact phone number for any complaints or concerns during the construction period.
- Inductions for the work crew would include the specific noise issues and mitigation measures required for the site. The induction would include:
  - all relevant standard noise mitigation measures
  - relevant licence and approval conditions
  - permissible hours of work
  - location of any sensitive receivers that may exceed the construction noise management level
  - construction employee parking areas
  - designated loading/ unloading areas and procedures
  - site opening/closing times (including deliveries)
  - behavioural practices that minimise noise:
  - avoiding dropping materials from height and avoiding metal to metal contact on material.
- The distance between plant and equipment and any sensitive receiver should be maximised where practicable.
- Vehicles, plant and equipment would be regularly maintained and kept in good operating condition. Machines found to produce excessive noise should be removed from site or stood down until repairs or modifications can be made.
- Plant should be turned off when not in use. For example, trucks should not be left idling if not operational.

The following mitigation measures have been recommended by GHD in relation to vibration during the construction phase:

- Should any buildings be identified that are located within the structural damage vibration buffer distances identified in Section 4.2.2 of the Acoustic Assessment, a property condition report should be prepared for the premises before and after undertaking the work.
- Compliance vibration monitoring should also be undertaken during high vibration generating activities where buildings are located within the structural damage buffer distances to confirm vibration criteria are not exceeded.

The following community relation measures are recommended to be implemented by GHD:

- Department of Education would establish contact with residents affected by construction noise and communicate the construction program and progress on a regular basis, particularly when noise generating activities are planned. Communication with the local community would be maintained throughout the construction period.

- Department of Education would provide a community liaison phone number and permanent site contact so that noise complaints can be received and addressed in a timely manner.
- Upon receipt of a noise complaint, monitoring would be undertaken and reported as soon as possible. If exceedances are detected, the situation would be reviewed in order to identify means to attempt to reduce the impact to acceptable levels.

The following mitigation measures have been recommended by GHD in relation to noise during the operational phase:

- A 2.0 m high solid barrier should be constructed around all mechanical plant areas housing air-conditioning units servicing the proposed buildings.
- Events at the school hall should finish prior to 10 pm to negate any sleep disturbance impacts.
- During any concert events within the school hall, the external doors to the hall should remain closed except for the ingress and egress of students/staff/parents.
- If noisy events in the school are proposed which have the potential to generate internal noise levels in excess of 90 dBA then additional acoustic treatments to the school hall should be considered.

6.9 Sediment, Erosion and Dust Controls

A Preliminary Erosion and Sediment Management Plan has been prepared by SMEC and is included at **Appendix R**. Also relevant to this section are the Concept Sediment and Erosion Control Plan (**Appendix S**) and the Sediment and Erosion Control Details (**Appendix T**) prepared by Bonacci Group. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

Environmentally sensitive receiving areas within the study area include the following:

- To the north east of the project are Stonequarry Creeks and Redbank Creek and surrounding heavily vegetated areas of remnant or regrowth vegetation;
- There are remnant trees in the north east corner of the development;
- One small farm dam 230 metres south of the project (south of Wonga Road);
- Two medium farm dams between 650 metres and 700 metres to the south of the project;
- Agricultural landuse to the west; and
- Urban residential subdivision immediately to the north.

Demolition catchment assessment parameters are captured in the table below.

Table 11 Demolition Catchment Assessment Parameters

Parameter	Value
Sediment Type	Blacktown Soil Landscape – Type D
Soil Hydrological Group	Blacktown Soil Landscape – Group C
Volumetric Runoff Coefficient (Cv)	0.64
Rainfall Data	5 day / 85th %ile / 34mm
Rainfall Erosivity (R factor)	2,500
Soil Erodibility (K factor)	Blacktown Soil Landscape – 0.038
Erosion Control Practice (P factor)	1.3 (compacted and smooth)
Ground Cover and Management (C factor)	1

Considering the above parameters, measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles are listed below.

Mitigation Measures

Key management strategies for erosion and sediment control plans are to include:

- Minimise extent and duration of construction disturbance;
- Ensure / separation of offsite water from site water;
- Use erosion control measures to prevent offsite impacts;
- Inspect and maintain erosion control measures; and
- Progressively stabilise and/or rehabilitate disturbed areas as soon as operationally possible.

The Concept Sediment and Erosion Control Plan (**Appendix S**) and the Sediment and Erosion Control Details (**Appendix X**) prepared by Bonacci Group apply these strategies with respect to the subject site. SMEC further recommend following mitigation measures:

- Nominate a suitably qualified environmental representative on site to complete self-audits and monitor Soil and Water Management Plans and ensure ongoing monitoring, maintenance and prevention of pollution.
- A progressive erosion and sediment control plan is to be prepared for the works and developed progressively through the construction phase.
- In locations where proposed post-redevelopment water quality basins are planned outside the demolition footprint, demolition phase sediment basins or other sediment control elements may be located in these places during demolition phase, subject to designs being compatible with subsequent post-redevelopment water treatment requirements.
- Sizing of detailed demolition sub-catchments may need to be further defined once detailed demolition staging planning is underway. Provision for potentially larger up gradient stormwater catchments may need to be considered during higher erosion risk activities, such as redirecting live stormwater assists, changes to pavement drainage, or when bridge deck surface water is connected site water.

6.10 Contamination

A Phase 1 Contamination Report has been prepared by Douglas Partners and is included at **Appendix J**. In addition to this, a Report on Additional Contamination Investigation has been prepared by Douglas Partners and is available at **Appendix U**, a Hazardous Building Materials Report prepared by Douglas Partners available at **Appendix V**, and a Report on Preliminary Site Investigation with limited Sampling has been prepared by Douglas Partners available at **Appendix W**. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

A Phase 1 Contamination Report was completed by Douglas Partners in 2010 and focussed on the proposed Metals Fabrication Trade School incorporating the south western corner of the site. The scope of the assessment comprised a review of site history information, a site inspection, limited soil sampling and testing.

A search of the site history showed that the site was mainly used for agricultural or residential purposes up until the late 1950s/ early1960s. The high school has been developed since, with the Site mainly comprising sports courts and open space areas.

On the basis of the site features and historical uses, it was considered that the potential for contamination is generally low. This was confirmed by laboratory testing on a limited number of soil samples, with concentrations of all contaminants analysed below the adopted Site Assessment Criteria (SAC) adopted. Sub-surface conditions across the Site were not expected to vary significantly between sampled locations.

Based on the assessment undertaken it was considered that the Site does not present an unacceptable risk of hazard to human health or the environmental and is environmentally suitable for the proposed development (subject to a small number of conditions). It did note, however, that a bonded asbestos-containing material (ACM) fragment was observed near the northern site boundary.

Due to the age and scope of the assessment, the Report on Additional Contamination Investigation was prepared to provide additional information on ground conditions from a contamination perspective across the site, therefore confirming the conclusions of the 2010 study.

Borehole logs revealed relatively uniform conditions were encountered across most of the site, with filling observed in the majority of test pit locations. The general strata across the site is summarised as follows (in order):

- FILLING: Generally comprised silty clay with gravel and trace rootlets to typical depths of 0.2-0.85 m bgl, excluding BH 107 where filling was observed to the base of the hole (2m +). Where surfacing was present, the surface of the filling comprised road base asphaltic concrete, concrete and/or brick at the surface. Trace anthropogenic material (plastic only) was visible in filling from BH 109 only;
- SILTY CLAY: Light / medium red / orange / brown silty clay mottled orange in places with gravels was observed in all locations excluding BH 104 at depths of 0.2 – 1.2 m + (i.e. base of hole);
- SILTSTONE: Low strength orange / brown / red siltstone was observed below silty clay in soils from BH 102, 103 and 106 only;
- SHALE: Low strength grey shale with some orange / brown colouration towards the top was observed in two locations (BH 101 and 102); and
- SANDSTONE: Low strength orange / grey sandstone was observed at the base of the hole in BH 103, 108 and 112.

Hazardous building materials were identified or assumed to be present during a survey conducted by Douglas Partners. These included, but were not necessarily limited to:

- ACM in the form of asbestos containing eave, ceiling linings and gable verge linings, pipe work in ceiling cavities, vinyl floor tiles, fibre cement debris in subfloor/ceiling voids and fibre cement packing materials in subfloor voids;
- Synthetic Mineral Fibre (SMF) insulation materials in the form of loose fill and preformed batt insulation to ceiling cavities and roofs/walls, suspended ceiling tiles, insulation to hot water pipes and various hot/boiling water units, insulation to air handling duct work and air conditioning plant;
- Polychlorinated Biphenyls (PCBs) in the capacitors of fluorescent light/fan fittings;
- Lead paints;
- Elevated concentrations of lead in dust in the ceiling cavities of B00A through B00H.

Further information on hazardous building materials (including mitigation measures specific to the removal of each of the above items) can be found at **Appendix V**.

Based on the findings of this investigation and the previous investigation, Douglas Partners concludes that the potential for contamination constraints to the proposed development is low. This is in accordance with SEPP 55.

Mitigation Measures

Given that a bonded asbestos-containing material (ACM) fragment was observed near the northern site boundary, Douglas Partners recommends that the northern site boundary area and the balance of the site is subject to a detailed site inspection after demolition of existing structures is completed.

Once the demountable buildings have been removed, a detailed site walkover and targeted sampling (if deemed to be required) should be completed across the footprint areas.

6.11 Utilities

An Infrastructure Management Plan has been prepared by Northrop and is included at **Appendix F**. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

Requirement 13 of the SEARs requests the preparation of an Infrastructure Management Plan, in addition to an Integrated Water Management Plan. Both plans are included within **Appendix F**. This includes the record of consultation included in the preparation of the document.

The Plan concludes that the site can be adequately serviced by the power supply authority, Endeavour Energy; the telecommunications authority, Telstra (and NBN if required), Sydney Water and Jemena.

Mitigation Measures

All necessary upgrades to infrastructure and utilities as recommended in the Infrastructure Management Plan have been incorporated into the proposed development, as detailed in **Section 4.10**.

6.12 Drainage

A Civil Design Report has been prepared by Bonacci and is included at **Appendix X**, which addresses SEARs requirement 15 with regards to Drainage. Also relevant to this section is the Concept Stormwater Management Plan prepared by Bonacci Group, which is included at **Appendix Y**. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

A stormwater pit and pipe drainage system is proposed to service the site to replace the existing redundant drainage system, to service the school buildings and associated infrastructure post development. As early works, prior to demolition works, a new stormwater drainage line will be constructed to service the retained buildings in the south-eastern quadrant of the campus. This drainage system is shown in the Concept Stormwater Management Plan at **Appendix Y**.

The stormwater drainage systems have been designed to cater for design storms up to and including 100 year ARI (1% AEP) storm events as per *Wollondilly Shire Council DCP 2016*, Design Specifications and Standard Drawings, and Water Sensitive Urban design Technical Guidelines.

The water quality treatment measures for the site are provided to reduce pollutant loads due to the proposed development. Even though the total impervious area is reduced, as the works constitute a new development, the following water quality targets set by *Wollondilly Shire Council* will be adhered:

- Reduction of Mean annual Load of Gross Pollutants – 70% (greater than 5mm)
- Reduction of Mean annual Load of Total Coarse Sediment – 80% (0.1mm to 5mm)
- Reduction of Mean annual Load of Total Fine Sediment – 50% (less than 0.1mm)
- Reduction of Mean annual Load of Total Phosphorous –45%
- Reduction of Mean annual Load of Total Nitrogen – 45%

The water quality strategy for Picton High School incorporates a combination of swales, enviropods, stormwater filters and a bio-retention basin. Each stormwater drainage inlet pit within the school has been fitted with an enviropod. The stormwater runoff originating from the sportsfields is treated by passing through a swale before draining into the site OSD. All the roof and hard pavement runoff towards the west part of the site is treated by passing through enviropods and then draining into the site bio-retention basin, before draining into the site OSD.

The proposed water quality improvement measures improve the existing stormwater quality conditions and fulfil all the requirements of Wollondilly Shire Council's *Water Sensitive Urban Design (WSUD) Technical Guidelines*.

Mitigation Measures

No additional mitigation measures are proposed with regards to drainage.

6.13 Flooding

A Civil Design Report has been prepared by Bonacci and is included at **Appendix X**, which addresses SEARs requirement 16 with regards to Flooding.

Assessment

A flood impact assessment 'Tahmoor Coal Flood Impact Assessment (Ref: 34252.02) by WRM, 3 December 2014' has been produced on behalf of Wollondilly Shire Council. This assessment utilises data obtained during the 'Stonequarry Creek 2D Modelling and Climate Change Assessment by Worsley Parsons, 2011'.

This assessment identifies that the site does not experience flooding in major storm events.

As a result, the stormwater drainage network and surface levels are designed to protect the direct surface runoff away from building entry points.

Mitigation Measures

As the site is not flood prone, no further mitigation measures are proposed.

6.14 Waste

A Waste Management Plan has been prepared by SMEC and is included at **Appendix G**. A summary of the assessment is provided below.

Assessment

The likely waste streams to be generated during construction include:

- Demolition
  - Existing structures – bricks, tiles and porcelain, concrete and masonry, scrap metal, timber, wood waste, plasterboard, glass, plastics, wiring, cardboard and paper;
  - Existing structures – hazardous materials: asbestos containing materials (ACM), synthetic mineral fibres (SMF), lead contaminated waste (including lead paint systems and dust), light/fan fittings containing PCB capacitors (if any);
  - Road/driveway pavement – concrete, asphalt, gravel and road base; and
  - Redundant utilities.
- Excavation and earthworks
  - Top soil –uncontaminated and contaminated with weeds;
  - VENM/ENM;
  - Unsuitable spoil; and
  - Potentially contaminated fill soils.
- Clearing and grubbing
  - Green waste – timber, vegetation and weeds.

During the operational phase, waste streams include general waste and recycling waste. Waste volumes are for both general and recycling waste are estimated based on an 'office' ratio of 10L/100m^2. Therefore, based off a proposed GFA of 11,869m2, 1,187L of general waste and 1,187L of recycling is estimated daily. This is to be serviced by 26x240L general waste bins and 26x240L recycling bins.

Measures to be implemented to manage, reuse, recycle and safely dispose of waste include:

- All recyclable or non-recyclable wastes are to be suitably stockpiled in appropriate locations onsite and contractors commissioned to regularly remove the waste to approved disposal or recycling facilities.

- Spoil, topsoil and mulch are to be stockpiled onsite in allocated areas, where appropriate, and mitigation measures for dust control and surface water management will be implemented, including the Stockpile Management Protocol
- Liquid wastes are to be stored in appropriate containers in bunded areas until transported offsite. Bunded areas will have the capacity to hold 110 per cent of the liquid waste volume for bulk storage or 120 per cent of the volume of the largest container for smaller packaged storage
- Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the *Environmentally Hazardous Chemicals Act 1985*, EPA waste disposal guidelines.

6.15 Bushfire

A Bushfire Assessment has been prepared by Peterson Bushfire and is included at **Appendix Z**. A summary of the assessment and proposed mitigation measures are provided below.

Assessment

The bushfire hazard within 140 m of the school site is a low hazard corridor and grassland, which will be separated from the new build by 77 m consisting of the managed school grounds. Additional APZ establishment or vegetation management is not required.

The assessment concludes that, with the adoption of the mitigation measures below, that the proposal complies with the provisions of *Planning for Bushfire Protection 2006*.

Mitigation Measures

The following recommendations are made by Peterson bushfire:

- apply a BAL-12.5 (AS 3959) construction standard to the new build to address potential ember attack from the low hazard and forests located further to the east;
- It is recommended that new buildings are designed and constructed to comply with BAL-12.5 of *AS 3959-2009 Construction of buildings in bushfire-prone areas*. The NSW variation to AS 3959 is to be applied in addition to the BAL specifications. The variation is listed within *Planning for Bushfire Protection Addendum Appendix 3 May 2010*.
- Hydrants are to be installed to achieve compliance with *AS 2419.1 – 2005 Fire Hydrant Installations - System Design, Installation and Commissioning* (AS 2419).
- Where overhead electrical transmission lines are installed no part of a tree should be closer to a powerline than the distance specified in *ISSC 3 Guideline for Managing Vegetation Near Power Lines* (Industry Safety Steering Committee 2005).
- Any gas services are to be installed and maintained in accordance with *AS/NZS 1596-2008 The storage and handling of LP gas* (Standards Australia, 2008).

6.16 Building Code of Australia (BCA)

A BCA Design Assessment Report has been prepared by Design Confidence and is available at **Appendix AA**. The purpose of the report is to identify the extent to which the architectural design documentation complies with the relevant prescriptive provisions of the Building Code of Australia (BCA) Volume 1, edition 2016. The report concludes that the development is capable of complying with the BCA.

7.0 Environmental Risk Assessment

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

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

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

Figure 17 indicates the significance of environmental impacts and assigns a value between 1 and 10 based on:

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

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

- the complexity of mitigation measures;
- the known level of performance of the safeguards proposed; and
- the opportunity for adaptive management.

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

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

Figure 17 Risk Assessment Matrix

				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
Key: C - Construction O - Operation						
Noise and Vibration	C + O	▪ Increase in noise and vibration levels during construction activities ▪ Increase in noise levels during the operation of the school facility	▪ Implementation of Construction Noise and Vibration Measures which considers the construction methodology and details specific mitigation measures in accordance with the DECCW Interim Construction Noise Guideline. ▪ Appropriate mitigation measures to be implemented to ensure vibration levels will not compromise human comfort or result in building damage. ▪ Appropriate sound minimisation measures to be incorporated within the plant and mechanical areas.	C = 3 O = 1	C = 2 O = 2	C = 5 (low/medium) O = 3 (low)
Traffic and Parking	C + O	▪ Increase in construction traffic on local roads ▪ Increase in traffic and parking on local roads during operation	▪ A Construction Traffic Management Plan has been prepared detailing measures to minimise any adverse impacts arising from construction traffic. ▪ Additional parking demand generated by the proposed development will be accommodated within the proposed on-site parking areas. The existing road network has capacity to support any increase in traffic associated with the proposed development.	C = 3 O = 2	C = 2 O = 1	C = 5 (low/medium) O = 3 (low)
Archaeology	C	▪ Potential to impact on the site's archaeological significance.	▪ Appropriate mitigation measures to be implemented to ensure the proposed development will not adversely impact on the site's archaeological significance.	C = 3	C = 3	C = 6 (medium)
Visual and Built Form	O	▪ Visual impact of the development when viewed from the public domain. ▪ Visual impact of the development when viewed from development to the north.	▪ Measures have been incorporated to reduce the visual impact of the development when viewed from Argyle Street.	O = 2	O = 2	O = 4 (low/medium)

					Risk Assessment	
Amenity of Adjoining Properties	C + O	▪ Potential privacy impacts on adjoining properties. ▪ Potential overshadowing of adjoining properties.	▪ The building has been designed to limit privacy and overlooking of the adjoining property to the north.	C = 3 O = 3	C = 2 O =1	C = 5 (low/medium) O =4 (low/medium)
Air and Water Quality	C	▪ Potential for reduced air and water quality during construction	▪ A detailed Construction Environmental Management Plan will be developed once a contractor has been appointed to implement measures to ensure that air and water quality are maintained.	C = 2	C = 2	C = 4 (low/medium)

8.0 Mitigation Measures

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

Table 12 – Mitigation Measures

Mitigation Measures
Crime Prevention Through Environmental Design (CPTED) • Surveillance – Ensure opportunities for natural and incidental surveillance are maintained through effective lighting, access control and environmental maintenance. – Ensure that all proposed landscaping does not create concealment opportunities and restrict sightlines within the site and to the entrances to the school grounds. As such, planting within the proposed development should be maintained as follows: o For shrubs and ground cover – not exceed a height of 1m above ground level at maturity. o For trees – the underside of a canopy should exceed 2m from ground level at maturity. o Planting that has a mature height of between 1-2m should ideally be avoided or contained to areas not requiring clear sightlines or natural surveillance. – Ensure clear sight lines from the administration building to the main front entrances and approaches. • Lighting and Technical Supervision – Consult a qualified lighting engineer to ensure the correct lighting is provided to meet (and ideally exceed) minimum Australia and New Zealand Lighting Standards, to entrances, pathways, courtyards and the exterior of buidlings to improve surveillance and minimise opportunities for vandalism. – Lighting uniformity is essentially in outdoor lighting to promote consistent light levels and the perception of safety and security. As such, a target minimum lighting uniformity level of 0.4 Uo is recommended for outdoor lighting used within the school grounds (exc. lighting for sporting fields/courts). Lighting should also be designed to mininse light spill and pollution to adjoining properties, particularly residential properties. – All lighting detail should be in accordance with the Australian Standards and relevant Council policy. – All lighting is recommended to have a minimum Colour Rendering Index (CRI) of 60. – The Department of Education security requirements for secondary schools shall be implemented including: CCTV network and security system controlled by on-site communications room (preferably in administration building), intruder alarm system. The CCTV footage shall be recorded and kept for a minimum of 30 days. – It is recommended that a security consultant with a Class 2A licence under the Security Industry Act 1997 is engaged to provide specific advice on placement, installation, monitoring and maintenance of the CCTV network. • Territorial Reinforcement – Secure fencing and signage separating any publicly accessible portions of the site (ie oval, courts) from the core school grounds. – School appropriate perimeter fencing to ensure clear physical and visual delineation of school and non-school land. – Ensure that car parking areas are restricted and locked to ensure cars cannot enter the grounds outside of school hours. – Preparation of signage strategy including way finding signage to reinforce visitor's perception of safety and legibility of the development, and also advisory signage at all entrances to the school grounds regarding the notice of entering school grounds and that all vistors must report to the administration building. • Environmental Maintenance – Ensure the landscaping does not create concealment opportunities and does not restrict sightlines to/from the development and the surrounds. Additionally, the environmental condition should not facilitate a breach of access control. – Ensure a prompt response is incorporated within environmental maintenance procedures, particularly in respect to dumping, graffiti and vandalism. – The environmental maintenance procedures of the school should be reviewed regularly to ensure there ongoing effectiveness. – Use high quality materials for construction to lessen the likelihood of damage and help to reduce maintenance costs. • Activity and Space Management – The use of the school buildings and grounds afterhours and on weekends by external educational and sporting organisations should be appropriately managed and controlled to ensure the spaces within the school grounds do not become unsafe environments during these after-hours activities. In this regard, management procedures/plans are recommended to be prepared and implemented. – The school grounds are recommended to be secured after hours. – Separate school operating hours and after hours security management plans/procedures should be prepared and implemented.

Mitigation Measures

- Access Control
  - It is recommended that the perimeter of the site be fenced and pedestrian and vehicle entrance/exit points be clear and able to be secured (via gates etc). Further fencing to control access to the core of the school is suggested to prevent unauthorised afterhours access to closed areas of the school after hours.
  - Provide restricted access keys or the like to the secure gates/doors at the entrance/exit points of the site to prevent unauthorised entry outside of school hours.
  - Secure access to buildings and classrooms afterhours is recommended. In particular classrooms and storage areas with valuable equipment must be secured appropriately.
  - Fire exits are for emergency use only and doors should be alarmed to alert security. These exits should be brightly lit and free of obstructions to ensure good sightlines to these doors.
- Design, Definition and Designation
  - Maintain the current design definition demonstrated in the proposed development. Ensure clarity of ownership and management are clearly understood by users of the development.

Transport and Accessibility

- Restrict vehicles to left-in from Argyle Street and left-out to Argyle Street;
- No right turn signs to be installed for vehicles existing site to Argyle Street;
- Wonga Road to be considered as an alternative point of egress to allow vehicles to turn right from Wonga Road to Argyle Street to head north. Road alignment and sight distances to be checked for this option;
- The existing internal driveway for school buses shall be retained for the movement of heavy vehicles during the construction phase; and
- Vehicle Movement Plans (VMPs) including site layout for each stage of works to be developed by contractor.

Social Impacts

- Ensure that major noise emissions such as demolition occur outside of standard school hours, such as the holiday period; and
- Restrict access to the construction site in order to ensure the health and safety of staff and students is preserved.

Biodiversity

- Indirect impacts of the proposed development such as erosion and water quality impacts will be managed through the development of a Construction Environmental Management Plan;
- Appropriate pre-clearance protocols during the removal of canopy trees are to be put in place at the time of construction;
- An appropriate erosion and sedimentation control plan should be put in place; and
- Offsetting of unavoidable impacts caused by the development must be applied by requiring 8 ecosystem credits.

Aboriginal Heritage

- Consultation with the registered Aboriginal stakeholders should continue. Stakeholders have been given the opportunity to comment on the recommendations of this report and these comments are included in this report;
- An Aboriginal Cultural Heritage Management Plan should be devised as a final document for the study area as State Significant Development (SSD) status (SSD #8640), in order to manage any Aboriginal archaeological and cultural constraints that may arise;
- Archaeological test excavation in accordance with Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, Part 6 National Parks and Wildlife Act 1974, (DECCW 2010) revealed no Aboriginal archaeological objects or deposits: the development as shown (Figures 4.1 – 4.6) should be allowed to 'proceed with caution';
- After this and before any ground disturbance takes place all development staff, contractors and workers should be briefed prior to works commencing on site, as to the status of the area and their responsibilities in ensuring preservation of the said area. They should also be informed of their responsibilities regarding any Indigenous archaeological deposits and/or objects that may be located during the following development;
- If any Aboriginal archaeological deposits and/or objects are located during the development, then the following should take place;
  - All work is to cease in the immediate vicinity of the deposits and/or objects
  - The area is to be demarcated
  - OEH, a qualified archaeologist and the participating RAPs are to be notified.
- Should any human remains be located during the following development;
  - All excavation in the immediate vicinity of any objects of deposits shall cease immediately;
  - The NSW police and OEH's Enviroline be informed as soon as possible:

Mitigation Measures

- Once it has been established that the human remains are Aboriginal ancestral remains, OEH and the relevant Registered Aboriginal Parties will identify the appropriate course of action.

Noise and Vibration

- Noise generating construction activities should be undertaken in accordance with the *Interim Construction Noise Guideline* (DECC, 2009). The standard hours for construction work should be in accordance with the Guideline:
  - 7:00 am – 6:00 pm Monday to Friday
  - 8:00 am – 1:00 pm Saturdays
  - no work on Sundays or Public Holidays.
- Work outside normal hours should only comprise:
  - the delivery of materials outside normal hours requested by police or other authorities for safety reasons
  - emergency work to avoid the loss of lives and/or property
- Residences within 500 m of the site should be notified as to the timing and duration of the construction works and provided with a contact phone number for any complaints or concerns during the construction period.
- Inductions for the work crew would include the specific noise issues and mitigation measures required for the site. The induction would include:
  - all relevant standard noise mitigation measures
  - relevant licence and approval conditions
  - permissible hours of work
  - location of any sensitive receivers that may exceed the construction noise management level
  - construction employee parking areas
  - designated loading/ unloading areas and procedures
  - site opening/closing times (including deliveries)
  - behavioural practices that minimise noise:
  - avoiding dropping materials from height and avoiding metal to metal contact on material.
- The distance between plant and equipment and any sensitive receiver should be maximised where practicable.
- Vehicles, plant and equipment would be regularly maintained and kept in good operating condition. Machines found to produce excessive noise should be removed from site or stood down until repairs or modifications can be made.
- Plant should be turned off when not in use. For example, trucks should not be left idling if not operational.

The following mitigation measures have been recommended by GHD in relation to vibration during the construction phase:

- Should any buildings be identified that are located within the structural damage vibration buffer distances identified in Section 4.2.2 of the Acoustic Assessment, a property condition report should be prepared for the premises before and after undertaking the work.
- Compliance vibration monitoring should also be undertaken during high vibration generating activities where buildings are located within the structural damage buffer distances to confirm vibration criteria are not exceeded.

The following community relation measures are recommended to be implemented by GHD:

- Department of Education would establish contact with residents affected by construction noise and communicate the construction program and progress on a regular basis, particularly when noise generating activities are planned. Communication with the local community would be maintained throughout the construction period.
- Department of Education would provide a community liaison phone number and permanent site contact so that noise complaints can be received and addressed in a timely manner.
- Upon receipt of a noise complaint, monitoring would be undertaken and reported as soon as possible. If exceedances are detected, the situation would be reviewed in order to identify means to attempt to reduce the impact to acceptable levels.

Mitigation Measures

The following mitigation measures have been recommended by GHD in relation to noise during the operational phase:

- A 2.0 m high solid barrier should be constructed around all mechanical plant areas housing air-conditioning units servicing the proposed buildings.
- Events at the school hall should finish prior to 10 pm to negate any sleep disturbance impacts.
- During any concert events within the school hall, the external doors to the hall should remain closed except for the ingress and egress of students/staff/parents.
- If noisy events in the school are proposed which have the potential to generate internal noise levels in excess of 90 dBA then additional acoustic treatments to the school hall should be considered.

Sediment, erosion and dust controls

- Minimise extent and duration of construction disturbance;
- Ensure / separation of offsite water from site water;
- Use erosion control measures to prevent offsite impacts;
- Inspect and maintain erosion control measures; and
- Progressively stabilise and/or rehabilitate disturbed areas as soon as operationally possible.
- Nominate a suitably qualified environmental representative on site to complete self-audits and monitor Soil and Water Management Plans and ensure ongoing monitoring, maintenance and prevention of pollution.
- A progressive erosion and sediment control plan is to be prepared for the works and developed progressively through the construction phase.
- In locations where proposed post-redevelopment water quality basins are planned outside the demolition footprint, demolition phase sediment basins or other sediment control elements may be located in these places during demolition phase, subject to designs being compatible with subsequent post-redevelopment water treatment requirements.
- Sizing of detailed demolition sub-catchments may need to be further defined once detailed demolition staging planning is underway. Provision for potentially larger up gradient stormwater catchments may need to be considered during higher erosion risk activities, such as redirecting live stormwater assists, changes to pavement drainage, or when bridge deck surface water is connected site water.

Contamination

- Given that a bonded asbestos-containing material (ACM) fragment was observed near the northern site boundary, Douglas Partners recommends that the northern site boundary area and the balance of the site is subject to a detailed site inspection after demolition of existing structures is completed.
- Once the demountable buildings have been removed, a detailed site walkover and targeted sampling (if deemed to be required) should be completed across the footprint areas.

Bushfire

- apply a BAL-12.5 (AS 3959) construction standard to the new build to address potential ember attack from the low hazard and forests located further to the east;
- It is recommended that new buildings are designed and constructed to comply with BAL-12.5 of *AS 3959-2009 Construction of buildings in bushfire-prone areas*. The NSW variation to AS 3959 is to be applied in addition to the BAL specifications. The variation is listed within *Planning for Bushfire Protection Addendum Appendix 3 May 2010*.
- Hydrants are to be installed to achieve compliance with *AS 2419.1 – 2005 Fire Hydrant Installations - System Design, Installation and Commissioning* (AS 2419).
- Where overhead electrical transmission lines are installed no part of a tree should be closer to a powerline than the distance specified in *ISSC 3 Guideline for Managing Vegetation Near Power Lines* (Industry Safety Steering Committee 2005).
- Any gas services are to be installed and maintained in accordance with *AS/NZS 1596-2008 The storage and handling of LP gas* (Standards Australia, 2008).

9.0 Justification of the Proposal

In general, investment in major projects can only be justified if the benefits of doing so exceed the costs. Such an assessment must consider all costs and benefits, and not simply those that can be easily quantified. As a result, the EP&A Act specifies that such a justification must be made having regard to biophysical, economic and social considerations and the principles of ecologically sustainable development.

This means that the decision on whether a project can proceed or not needs to be made in the full knowledge of its effects, both positive and negative, whether those impacts can be quantified or not.

The proposed development involves the redevelopment of an educational establishment. The assessment must therefore focus on the identification and appraisal of the effects of the proposed change over the site's existing condition.

Various components of the biophysical, social and economic environments have been examined in this EIS and are summarised below.

9.1 Social and Economic

The social and economic impact assessment of the proposed development has demonstrated that:

- The proposed development will provide a significant piece of social infrastructure with core facilities for approximately 2,000 students. The design and capacity increase of the redevelopment is anticipated to have positive impacts on the educational standards of the region.
- It is intended that the incorporation of the natural environment into the learning environment through outdoor classrooms will provide an aesthetically enjoyable experience, reduce stress, and improve concentration within outdoor learning and social settings. A diverse series of stimulating and inspiring outdoor classrooms will provide students and teachers regular access to the extended natural amenity provided under the landscape plans.
- The proposed development is anticipated to create 68 full time positions in consultancy and construction activities over a 36 month period. This is anticipated to have additional social benefits for the region in terms of providing adequate employment away from strategic centres identified in the draft District Plans.
- Picton High School is the only public high school within the Wollondilly LGA. As discussed in **Section 2.4**, to not invest in the redevelopment of this school would require students unable to be catered for under the existing infrastructure to travel significant distances to the nearest alternative school. Given the increase in housing development near to the Picton region, the proposed redevelopment is anticipated to have positive social outcomes in ensuring that local residents have access to high quality educational facilities.
- The school will remain in operation during construction 8am-3pm within a temporary school in the south-west corner of the site. Approval for this temporary school is not sought under this application. It is not anticipated that any student will be required to seek alternative education establishments throughout the construction period.

9.2 Biophysical

The environmental impact assessment of the proposed development has demonstrated that:

- The development will not generate any environmental impacts that cannot appropriately be managed, and is consistent with the relevant planning controls for the site;
- The development will not have a significant impact on any threatened flora or fauna species; and
- Any unavoidable removal of vegetation is able to be offset by requiring 8 ecosystem credits.

9.3 Ecologically Sustainable Development

The EP&A Regulation lists 4 principles of ecologically sustainable development to be considered in assessing a project. They are:

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

An analysis of these principles follows.

Precautionary Principle

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

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

Intergenerational Equity

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

- maintaining heritage listed items for future generations to appreciate and enjoy;
- implementing safeguards and management measures to protect environmental values.
- facilitating job creation and the provision of housing in close proximity to public transport; and
- Improving the public domain and amenity in The Haymarket precinct.

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

Conservation of biological diversity and ecological integrity

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

The proposal would not have any significant effect on the biological diversity and ecological integrity of the study area.

Improved valuation, pricing and incentive mechanisms

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

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

10.0 Conclusion

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

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

- The assessment of this proposal has demonstrated that the development will not generate any environmental impacts that cannot be appropriately managed, and is consistent with the relevant planning controls for the site.
- The development will provide a significant new piece of social and educational infrastructure, providing a redeveloped high school with permanent teaching spaces to accommodate 1,500 students and core facilities for 2,000 students. The provision of a new teaching and education facility will support and strengthen the availability of education facilities in the region.
- The area and shape of the site allows for the provision of new teaching and education facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on surrounding uses.
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the EP&A Regulation 2000.
- The proposal will not result in any adverse traffic impacts on the surrounding road network, and parking demand associated with the proposed development can be accommodated within the site.

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