

Review of Environmental Factors

Gables New Primary School and Preschool

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Acknowledgement of Country

The NSW Department of Education acknowledges the people of Darug (Dharug) Country, of the Eora Nation are the traditional custodians of the land on which the Gables New Primary School and Preschool is proposed.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of Australia.

The NSW Department of Education is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.

The NSW Department of Education recognises that by acknowledging our past, we are laying the groundwork for a future that embraces all Australians; a future based on mutual respect and shared responsibility.


Declaration

This Review of Environmental Factors (REF) has been prepared by Ethos Urban on behalf of the NSW Department of Education (department) and assesses the potential environmental impacts which could arise from the construction and operation of the Gables New Primary School and Preschool at Lot 301 DP 1287967 on Fontana Drive, Gables.

This REF has been prepared in accordance with the *Guidelines for Division 5.1 Assessments* and any relevant addendum (the Guidelines), and the relevant provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP).

This REF provides a true and fair review of the activity in relation to its likely impact on the environment and the information it contains is neither false nor misleading. It addresses to the fullest extent possible all the factors listed in Section 3 of the Guidelines, the EP&A Regulation and the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In preparing the REF I have declared any possible conflict of interests (real, potential or perceived) and I do not consider I have any personal interests that would affect my professional judgement.

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Under Separate Cover

Box Hill North Voluntary Planning Agreement

Abbreviations

Abbreviation	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System
APZ	Asset Protection Zone
BC Act 2016	<i>Biodiversity Conservation Act 2016</i>
BC Regulation	Biodiversity Conservation Regulation 2017
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
CEMP	Construction Environmental Management Plan
CM Act	<i>Coastal Management Act 2016</i>
COPA	Covered Outdoor Play Area
DA	Development Application
The	NSW Department of Education

Abbreviation	Description
Department	
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DCP	Development Control Plan
DPHI	Department of Planning, Housing and Infrastructure
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FM Act	<i>Fisheries Management Act 1994</i>
FTE	Full-Time Equivalent
Ha	Hectares
LEP	Local Environmental Plan
LGA	Local Government Area
MNES	Matters of National Environmental Significance
NCC	National Construction Code
NPW Act	<i>National Parks and Wildlife Act 1974</i>
OOSH	Out of School Hours
PCEMP	Preliminary Construction Environmental Management Plan
Planning Systems SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
PMF	Probable Maximum Flood

Abbreviation	Description
Proponent	Department of Education
PUDO	Pick Up/Drop Off
REF	Review of Environmental Factors
Resilience and Hazards SEPP	<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>
RF Act	<i>Rural Fires Act 1997</i>
RFS	Rural Fire Service
Roads Act	<i>Roads Act 1993</i>
SDRP	School Design Review Panel
SEPP	State Environmental Planning Policy
SES	NSW State Emergency Service
SIS	Species Impact Statement
The Hills DCP	<i>The Hills Development Control Plan 2012</i>
The Hills LEP	<i>The Hills Local Environmental Plan 2019</i>
TI SEPP	<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>
WM Act	<i>Water Management Act 2000</i>

Executive Summary

The Proposal

The proposal relates to the construction and operation of the Gables New Primary School and Preschool, with associated out of school hours care, alongside access and car parking, landscaping and play space and relevant infrastructure works.

The proposal will provide capacity for up to 1,000 primary school students and 60 preschool students and is responding to demographic changes from a growing population requiring more accessible educational and care facilities, through the delivery of the Box Hill North (now 'Gables') Precinct, under The *Hills Development Control Plan 2012* (The Hills DCP).

The proposed activity is located on a vacant and cleared greenfield parcel of land bound by Pennant Way to the north, Cataract Road to the east, Fontana Drive to the west and a vacant lot to the south, within The Hills Shire Council Local Government Area (LGA). The site comprises one lot, legally described as Lot 301 DP 1287967, that covers an area of approximately 2.21ha. The site is identified for a new school under the Box Hill North Precinct Masterplan under The Hills DCP.

The site is partially identified as bushfire prone land, owing to the riparian corridor further east of the site, with the associated vegetation buffer encroaching slightly into the site. The design approach has considered the siting of the built works along the northern and western boundaries, in consideration of the site's physical parameters, while acknowledging the site's opportunities through the delivery of active frontages.

Planning Pathway

The proposal activity involves the construction of a new government school (including Relevant Preschool) by the Department of Education (the Department) (a public authority) on land that does not contain an existing or approved school and is in a prescribed zone. Accordingly, pursuant to Sections 3.37A of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP), the proposed works are classified as development which may be carried out without consent.

Therefore, the proposal is considered an 'activity' for the purposes of Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and is subject to an environmental assessment. For the purposes of this proposal, the Department is the proponent and the determining authority and the required environmental assessment is in the form of a Review of Environmental Factors (REF). The REF has been prepared in the accordance with the *Guidelines for Division 5.1 Assessments* (DPE, June 2022) and the *Guidelines for Division 5.1 assessments - consideration of environmental factors for hospital and school activities Addendum* (DPHI, October 2024).

Consultation

Early engagement was held with a range of stakeholders including Hills Shire Council, Transport for NSW, Rural Fire Service (RFS), Fire and Rescue NSW, Sydney Water, Department of Climate Change, Energy, the Environment and Water (DCCEEW), and the NSW State Emergency Service (SES).

In addition, non-statutory consultation was undertaken with a range of community and government stakeholders throughout the design process, including with local residents, the Box Hill Public

School community, Local Aboriginal Land Council and Aboriginal Education Consultative Groups. The feedback received has informed the design evolution of the proposal.

Consultation has been undertaken in accordance with statutory requirements under the TI SEPP and having regard to the *Stakeholder and community participation plan for new health services facilities and schools* (Department of Planning Housing and Infrastructure (DPHI), October 2024) (SCPP DPHI) and the *Stakeholder and Community participation plan For new schools and major school upgrade projects undertaken under Division 5.1 of the EP&A Act 1979* (Department of Education, October 2024) (SCPP DoE).

The Review of Environmental Factors (REF) for the Gables New Primary School and Preschool was exhibited for 28 days from 25 February 2025 until 24 March 2025. A total of five (5) submissions were received, including three (3) submissions received from government agencies, one (1) submission received from Council, and one (1) public submission. Comments received have been carefully considered and responded to and are detailed in Section 6.

Environmental Impacts

The REF provides an assessment of the environmental impacts of the proposal. It considers, to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the proposed activity as is required under the EP&A Act. The REF also sets out the undertakings made by the Department to manage and minimise potential impacts arising from the activity. The REF finds an Environmental Impact Statement (EIS) is not required and this REF is an adequate level of impact assessment.

The proposal will generally result in environmental impacts that are either negligible or low. The most notable potential environmental impacts relate to traffic, noise, contamination, bushfire and flooding whose potential impacts will be mitigated and minimised. Other impacts have been considered as detailed in this REF.

The activity is consistent with the planned Box Hill North Precinct development. The activity is anticipated to be a positive outcome for the local community and will result in a long-term positive impact on educational services within the Gables community.

Justification and Conclusion

Based on the environmental assessment undertaken as part of this REF, it has been determined that the proposal will not result in any significant or long-term detrimental impacts. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

The environmental impacts of the proposal are not likely to be significant. Therefore, it is not necessary for an Environmental Impact Statement (EIS) to be prepared and approval to be sought for the proposal from the Minister for Planning and Public Spaces under Part 5.1 of the EP&A Act. The proposed activity will not have any effect on Matters of National Environmental Significance (MNES) and approval of the activity under the Commonwealth EPBC Act is not required.

On this basis, it is recommended that the Department determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.

1. Introduction

The NSW Department of Education (the Department) proposes the construction and operation of the Gables New Primary School and Preschool (the proposal) at Lot 301 DP 1287967 at 1 Pennant Way, Gables (the site).

A photomontage of the proposal is shown at Figure 1.



Figure 1 Photomontage of the proposed school from Fontana Drive

Source: Architectus

The site is located within the Box Hill North Precinct, within The Hills Shire Council Local Government Area (LGA), which is undergoing significant urban renewal to transform the area into a mixed-use sustainable neighbourhood. The proposal therefore seeks to respond to demographic changes in the area, driving demand for fit-for-purpose and accessible educational and care facilities.

This Review of Environmental Factors (REF) has been prepared by Ethos Urban on behalf of the Department to determine the environmental impacts of the construction and operation of The Gables New Primary School and Preschool at Lot 301 DP 1287967 on Fontana Drive, Gables. For the purposes of these works, the Department is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The purpose of this REF is to describe the proposal, examine and take into account all matters affecting or likely to affect the environment and to detail mitigation measures to be implemented to manage impacts.

The potential environmental impacts have been assessed in the accordance with the *Guidelines for Division 5.1 Assessments* (DPE, June 2022), *Guidelines for Division 5.1 assessments - consideration of environmental factors for hospital and school activities Addendum* (DPHI, October 2024), EP&A Act, the *Environmental Planning and Assessment Regulation 2021*, and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The assessment contained within the REF has been prepared having regard to:

- Whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an Environmental Impact Statement (EIS) to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act; and
- The potential for the proposal to significantly impact *Matters of National Environmental Significance* (MNES) on Commonwealth land and the need to make a referral to the Australian Government Department of Environment and Energy for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

2. Site Analysis and Description

2.1 Site Location and Context

The site is located within The Hills Shire Council LGA, approximately 50km northeast of the Sydney CBD and 10km north of the Rouse Hill Town Centre (see Figure 2).

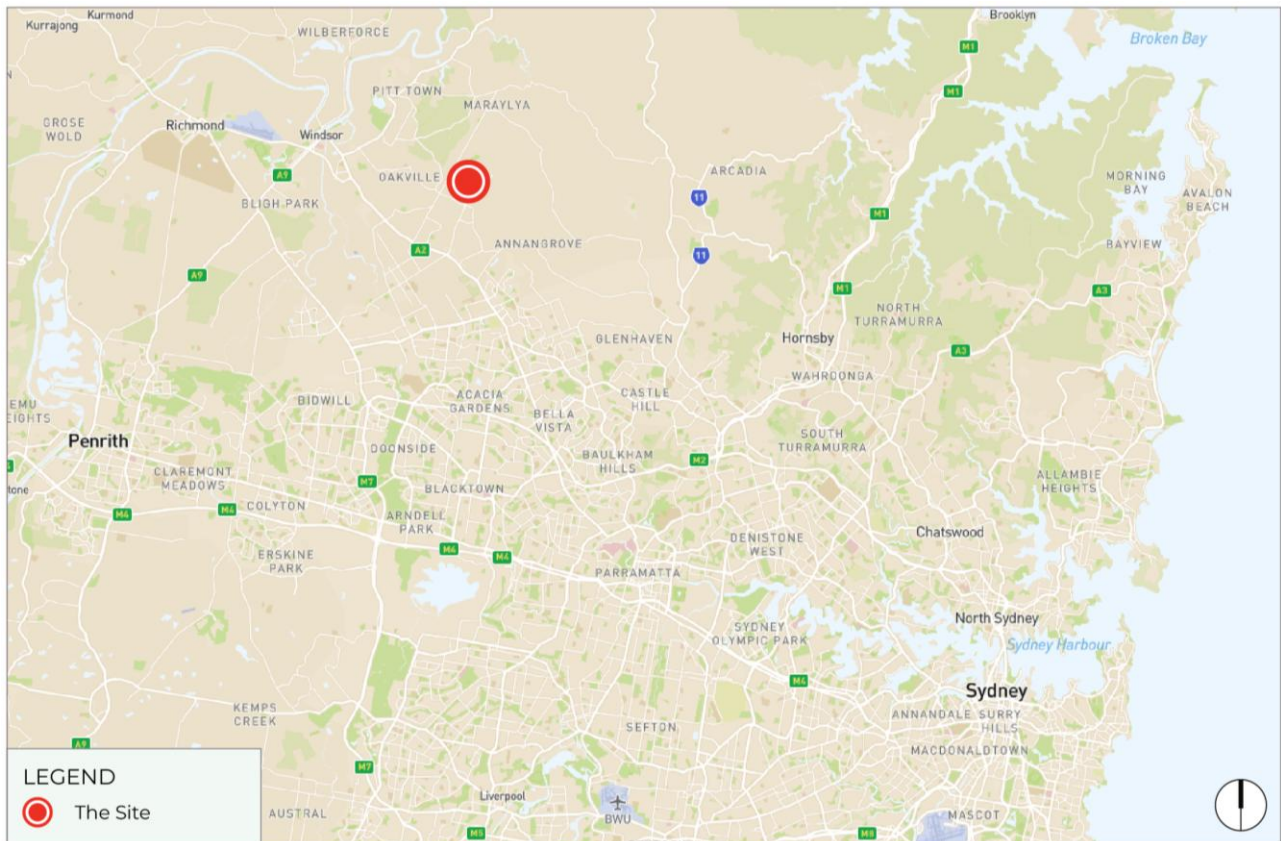


Figure 2 Site Context

Source: Mapbox, edits by Ethos Urban

2.2 The Site

The site is a vacant and cleared greenfield parcel of land bound by Pennant Way to the north, Cataract Road to the east, Fontana Drive to the west and a vacant lot to the south. The site comprises one lot, legally described as Lot 301 DP 1287967, that covers an area of approximately 2.21ha.

The lot was recently approved and registered with the NSW Land Registry Services following a subdivision development application (No. 1099/2019/ZB) in 2020. The lot was subsequently transferred to the Minister for Education and Early Learning to facilitate the delivery of a school. An aerial photo of the site is shown in Figure 3.



Figure 3 Site Aerial

Source: Nearmap (2024), edits by Ethos Urban

Site Characteristics

Table 1 Site Characteristics

Site Element	Description
Topography	The site is relatively flat, with a gentle slope from west to east. The site's highest point at the north western corner of the land sits at approximately 39.5m Australian Height Datum (AHD), falling to 34.5m AHD to the north eastern corner of the site.
Trees and Vegetation	<p>The site is a cleared greenfield site with scattered patches of distributed ground cover. The site has been historically cleared of remnant vegetation. There are no trees within the site itself, but the land is bound by perimeter tree planting along the site's eastern and western boundaries, within the road reserve.</p> <p>A BDAR Waiver request was previously submitted to DPHI on 30 May 2024 and a waiver was subsequently granted on 17 June 2024, owing to the low biodiversity value of the site. See Appendix 8 for the BDAR Waiver decision. No further ecological assessments have been undertaken for the site.</p>

2.3 Land Ownership

The site is legally identified as Lot 301 DP 1287967 which falls under the legal ownership of the Minister for Education and Early Learning. Landowner's consent for the proposed activity has been obtained.

2.4 Site Constraints and Opportunities

Consideration of site constraints has been undertaken through a review of the Section 10.7 (2 & 5) Planning Certificates dated 8 August 2024 (No. 78591), mapping under *The Hills Local Environmental Plan 2019* (The Hills LEP), alongside a review of specialist consultant reports and other desktop assessments. Key site constraints include:

Table 2 Site Considerations and Constraints

Consideration	Y/N	Description
Land use zoning	-	The site is zoned R4 High Density Residential
Critical Habitat	No	
Conservation area	No	
Item of environmental heritage	No	
Affected by coastal hazards	No	
Proclaimed to be in a mine subsidence district	No	
Affected by a road widening or road realignment	No	
Affected by a policy that restricts development of land due to the likelihood of landslip	No	
Affected by tidal inundation, subsidence, acid sulfate or any other risk	No	
Affected by any acquisition of land provision	No	
Biodiversity certified land or subject to any biobanking agreement or property vegetation plan	No	
Significantly contaminated	No	
Subject to flood related development controls	Yes	The site is within a flood planning area.
Bush Fire Prone Land	Yes	The site is partially identified as bushfire prone land. The riparian corridor approximately 40m to the east of the site is categorised as bushfire prone land under Vegetation Category 2. A vegetation buffer is identified either side of the corridor and encroaches within the eastern portion of the site.
Riparian Corridor	Yes	The site is adjacent to a riparian corridor, which lies along the eastern side of Cataract Road. The corridor is currently undergoing rehabilitation in accordance with a Vegetation Management Plan.

2.5 Related Applications

There are no other projects occurring concurrently at the site.

2.6 Planning Agreements

A Voluntary Planning Agreement is in place for the wider Box Hill North Precinct between the Minister for Planning and EJ Cooper & Son Pty Limited and dated 06/05/2015. The Voluntary Planning Agreement facilitates the transfer of Education Land Contributions to the Planning Minister for the Nominated School Site. The transfer has already occurred. There are no further requirements of the Voluntary Planning Agreement of relevance to this site.

3. Proposed Activity

This REF relates to the construction and operation of the Gables New Primary School and Preschool, which includes the following works:

- Construction of new 3-storey primary school buildings including:
 - Learning hubs, school hall, administration and library building;
 - End of trip facilities;
 - Main switchboard room with associated low voltage submains and electrical distribution boards; and
 - Photo-Voltaic (PV) panels at roof level.
- Operation of out of school hours (OOSH) care facility.
- Construction and operation of a one (1) storey preschool.
- Electronic signage.

Ancillary works including:

- Site preparation including earthworks and cut and fill.
- Associated site landscaping and open space improvements, including the delivery of a sports court.
- Associated transport and access infrastructure, including the construction of separate primary school and preschool car parking, bicycle parking, internal pedestrian road network, and access gates.
- Provision of waste storage and loading area.
- Inground building services works, utility services and communication infrastructure, including the installation of a pad-mount substation, and connection to existing Telstra infrastructure.
- Drainage works including water sensitive urban design (WSUD), filter chamber, connections to existing drainage pit, surcharge pit and raingarden.
- Associated off-site infrastructure works, including new pedestrian crossings, pedestrian refuge islands, footpath widening, school bus zone, and Kiss & Drop zone.

The proposed activity is discussed further in the following subsections and detailed on the Architectural Drawings at Appendix 3. The proposed site plan is shown in **Figure 4** below.



Figure 4 Proposed Site Plan

Source: Architectus

The key project details are outlined in Table 3 below.

Table 3 Summary of the activity

Project Element	Description
Site Area	22,127m ²
Project Name	Gables New Primary School and Preschool
Project Summary	Construction and operation of new primary school, preschool and OOSH, with associated on-site and off-site infrastructure works, landscaping, parking and access works.
Use	<ul style="list-style-type: none"> Educational Establishment (School) Relevant Preschool School-based child care
Student and Staff Numbers	<ul style="list-style-type: none"> Primary School: 1,000 students and 68 staff members

Project Element	Description
	<ul style="list-style-type: none"> Preschool: 60 students and 6 staff members
Car Parking and Bicycle Spaces	<p>Car Parking</p> <ul style="list-style-type: none"> 35 primary school staff parking spaces, including 1 accessible car parking space 16 preschool parking spaces, including 1 accessible car parking space 6 staff parking spaces <p>Bicycle Parking</p> <ul style="list-style-type: none"> 100 student bicycle spaces 4 staff bicycle spaces
Height	<p>Primary School:</p> <ul style="list-style-type: none"> Maximum height: 15m Storeys: 3 storeys <p>Preschool:</p> <ul style="list-style-type: none"> Maximum height: 6.5m Storeys: 1 storey
Play Space	<p>Primary School</p> <ul style="list-style-type: none"> Open Play Space: 10,600m² Covered Outdoor Space: 330m² Assembly Court: 660m² Games Court: 576m² Support Unit Outdoor Learning Area: 135m² <p>Preschool</p> <ul style="list-style-type: none"> Outdoor Play Area: 300m² Covered Outdoor Play Area: 126m²
Canopy Cover	3,380m ² (15% of the site area)
Off Site Works	<ul style="list-style-type: none"> 10 parent Pick Up/Drop Off (PUDO) spaces Four (4) wombat crossings located along Fontana Drive, Cataract Road and Pennant Way 3 pedestrian refuges located on Cataract Road, Bunyarra Parade, and Travertine Grove New 30 metre bus zone located along the eastern kerbside of Fontana Drive Two (2) new 70 metre Kiss & Drop zones along the southern side of Pennant Way and eastern side of Fontana Drive Footpath widening along southern side of Pennant Way and eastern side of Fontana Drive

3.1 Design and Built Form

3.1.1 Design Principles

This REF is accompanied by an Architectural Design Report prepared by the project's architect (Appendix 4) that outlines the design approach to the proposal. This approach was guided by ten (10) design principles that responded to the site's constraints and opportunities, including the

bushfire zone, active frontages, visual connection to the creek, as well as the project requirements for multiple uses within the site. The ten (10) design principles are summarised below.



Green Context



Future Local Public Recreation



Bushfire Zone



Prominent Corner



Prominent Entries



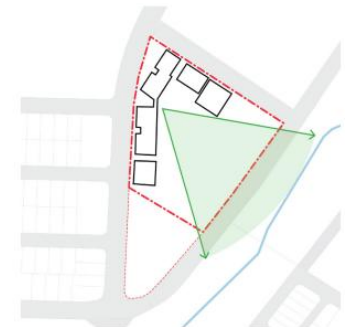
Multiple Sites



ELC Allocation



School Address Key Corner



Visual Connection with the Creek and Nature Reserve



Circulation around School Heart

Figure 5 Design Principles

Source: Architectus

3.1.2 Built Form

The above design principles have informed the proposal by locating the built form along the northern and western boundaries of the site.

The primary school is broadly configured in a L-shaped form, along the western and northern edge of the site. The primary school is defined by three (3) main teaching blocks, set across three (3) floor levels including ground floor level, with a separate one (1) storey school hall, connected by a covered walkway along the eastern edge of the buildings to link the buildings at each level.

The preschool building sits independently to the south of the site, providing clear delineation between the primary school and preschool works, including dedicated infrastructure and open space. The preschool building has been set out across one (1) floor level.

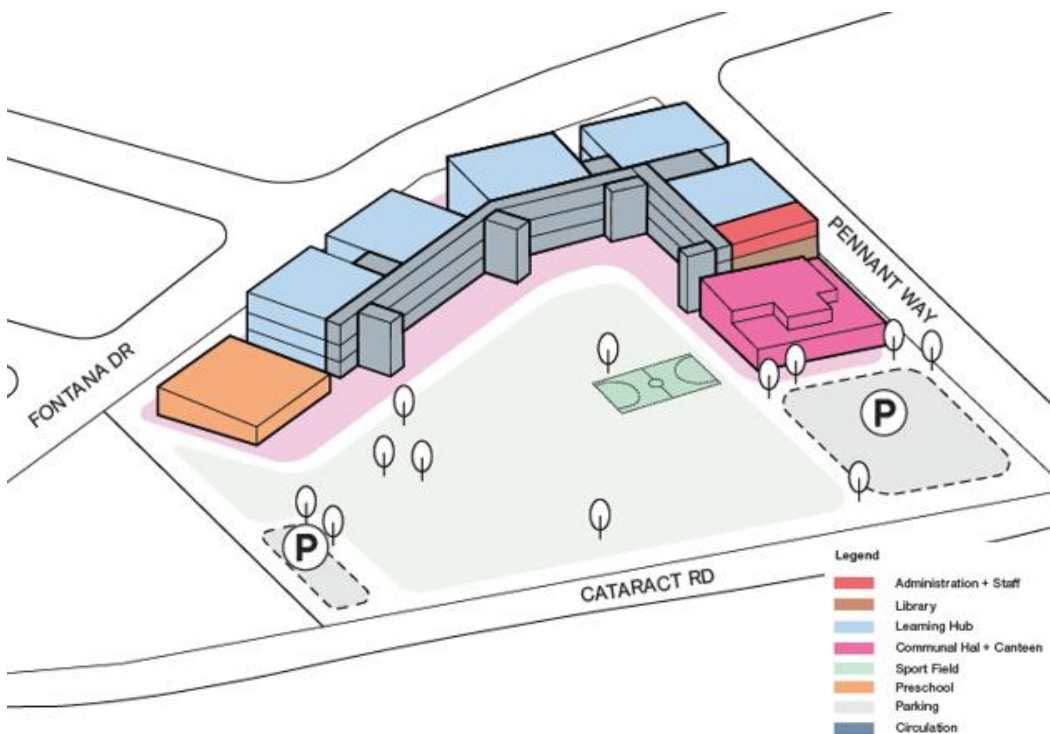


Figure 6 Proposed Built Form

Source: Architectus

3.1.3 Building Height

The proposed school buildings are three (3) storeys in height, with a maximum building height of 15 meters. The school hall located to the east of the school buildings will be two (2) storeys in height, with a maximum building height of 9.5 meters.

The preschool building located to the southern portion of the site has the lowest height of the proposed buildings, at one (1) storey in height, with a maximum building height of 6.5 meters. Elevations of the proposed school building and adjacent preschool are shown at Figure 7 below.



Figure 7 Proposed Street Elevations

Source: Architectus

3.1.4 Building Setbacks

The site setbacks have been established to allow 5 meters to the boundary at the closest point from Fontana Drive and Pennant Way, which, when added to the road reserve and landscape buffer within the site, provides a generous public domain to the surrounding road network.

3.1.5 Proposed Uses

The following key spaces are provided for in the school:

- Covered Outdoor Learning Space (COLA).
- General Learning Space (GLS).
- Support Learning Unit space (SLU).
- School hall and canteen.
- Library.
- Administrative and staff areas.
- Student amenities.

General Learning Spaces are the core teaching and learning environment for a primary school. They are designed to be adaptable learning environments that can support a range of teaching strategies that direct explicit instruction, to facilitation of inquiry and authentic project and problem-

based learning. They are configured to support a variety of seating plans from individual to large groups. GLS' are the predominant spaces across the Ground Floor, Level 1 and Level 2, connected by an internal walkway located along the eastern edge of the buildings, with associated circulation space, bathrooms and other student and staff amenities.

An example of the general arrangement of the site is shown at Figure 8.

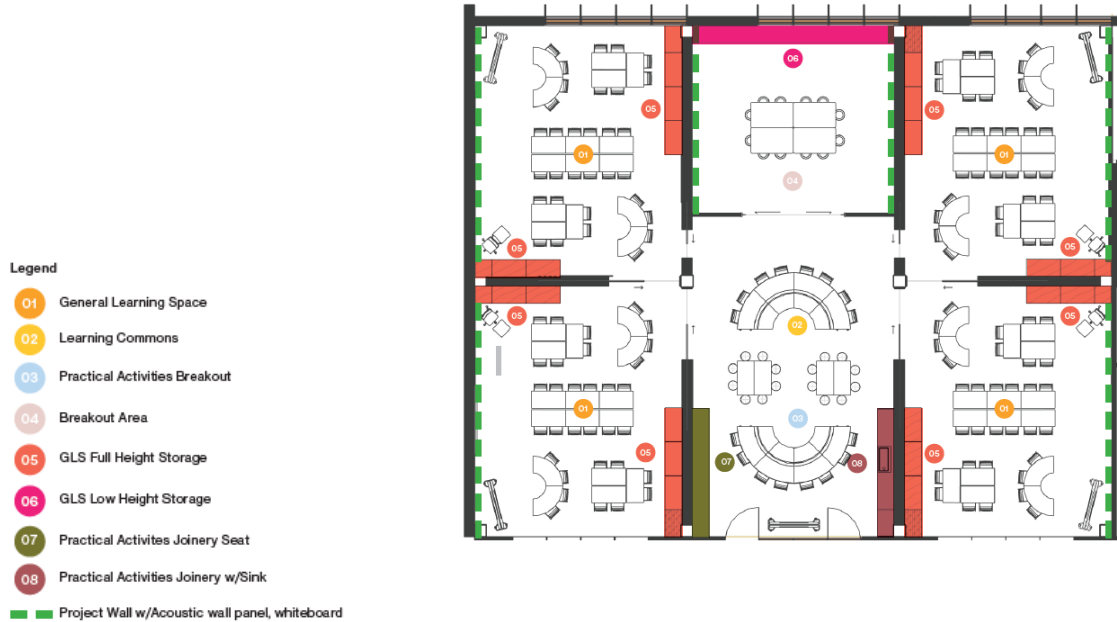


Figure 8 Example arrangement of General Learning Spaces

Source: Architectus

An administration facility is proposed to be located on the Ground Floor of the north-western corner of the site, to be accessed from the main pedestrian access point off Pennant Way. The SLU will be located directly adjacent to the administration facility.

A library will also be located at the First Floor, located in one of the teaching blocks located along the northern boundary of the site.

The school hall is also located on the northern boundary of the site, with the COLA located to the west of the school hall. A mezzanine floor level with additional school hall floorspace has also been incorporated into the design. The school hall will provide a flexible space for various school activities including for dining, while also providing a space for Out of School Hours care and community access.

3.1.6 External Materials and Finishes

The external materials and finishes for both the primary school and preschool comprise of fibre cement panels, tensile mesh and solid aluminium panel system. An indicative photomontage of the proposed material palette is illustrated in Figure 9 below. Further detail is provided in the Architectural Design Report and provided at Appendix 4.

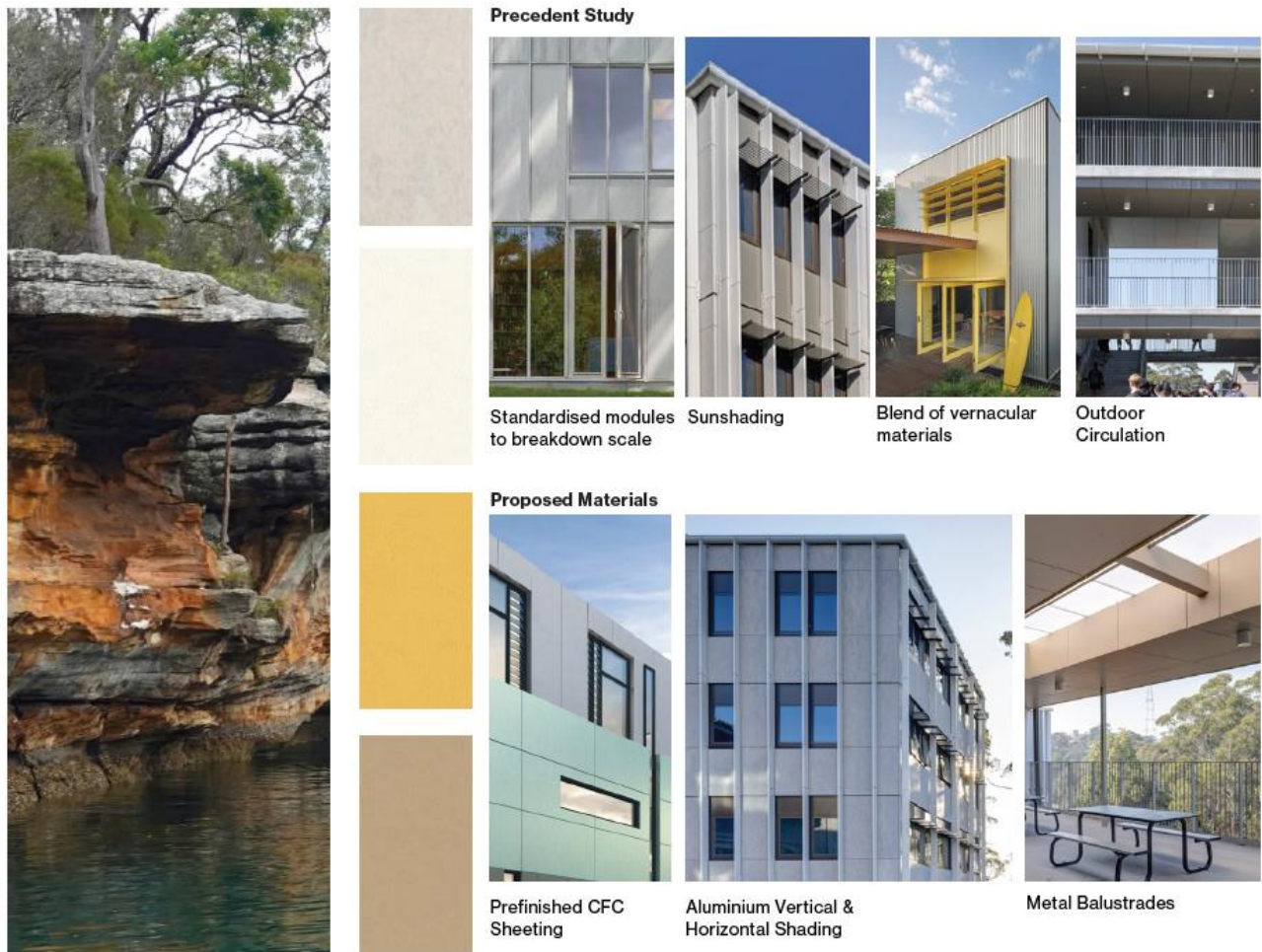


Figure 9 Proposed Materials and Finishes

Source: Architectus

3.2 Preschool

The southern portion of the site is occupied by a single storey building, proposed to be used as a 'Relevant Preschool', with capacity of up to 60 children aged between 3-5 years old, and 6 members of staff. The preschool comprises three internal playrooms, preparation areas and staff rooms, as well as a Covered Outdoor Play Area (COPA) on the eastern side of the school building. A total of 420m² of unencumbered open outdoor play area is provided, resulting in 7m² per child. The design of the preschool has been undertaken in accordance with the *Education and Care Services National Regulations* and the *NSW Child Care Planning Guidelines*. The proposed arrangement of the preschool is shown at Figure 10 below.

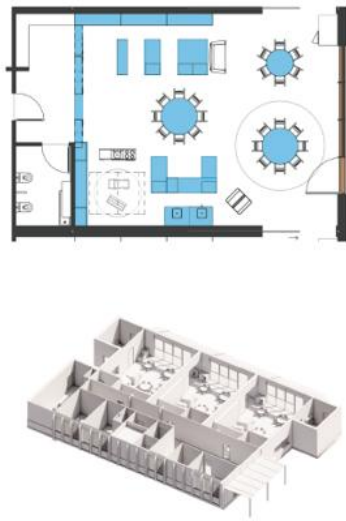


Figure 10 Preschool Interior Layout and Playroom

Source: Architectus

3.3 Pedestrian Access and Circulation

3.3.1 Pedestrian Access

Pedestrian points of access are shown at Figure 11 below. Access to the primary school will be provided from a series of access points along Fontana Drive, Pennant Way and Cataract Road, connecting to a new internal footpath throughout the site. The main entry is located off Pennant Way to the northern boundary of the site, with direct access from the kerbside Kiss & Drop zone. There are two (2) secondary entry options, one from Pennant Way and one from Fontana Drive, both of which will be accessible from the Kiss & Drop zones located along the respective roads. Refer to Section 3.4.3 for further details.

A pedestrian access is also located off Cataract Road, which is positioned adjacent to the vehicular access point associated with the proposed car parking facility and connects to the through-site link to access the primary school site.

The main access to the proposed preschool will be located to the south-western corner of the site boundary, off Fontana Drive. A secondary access point will be located from Cataract Road, leading to a pedestrian walkway adjacent to the associated preschool car park, and towards the preschool.

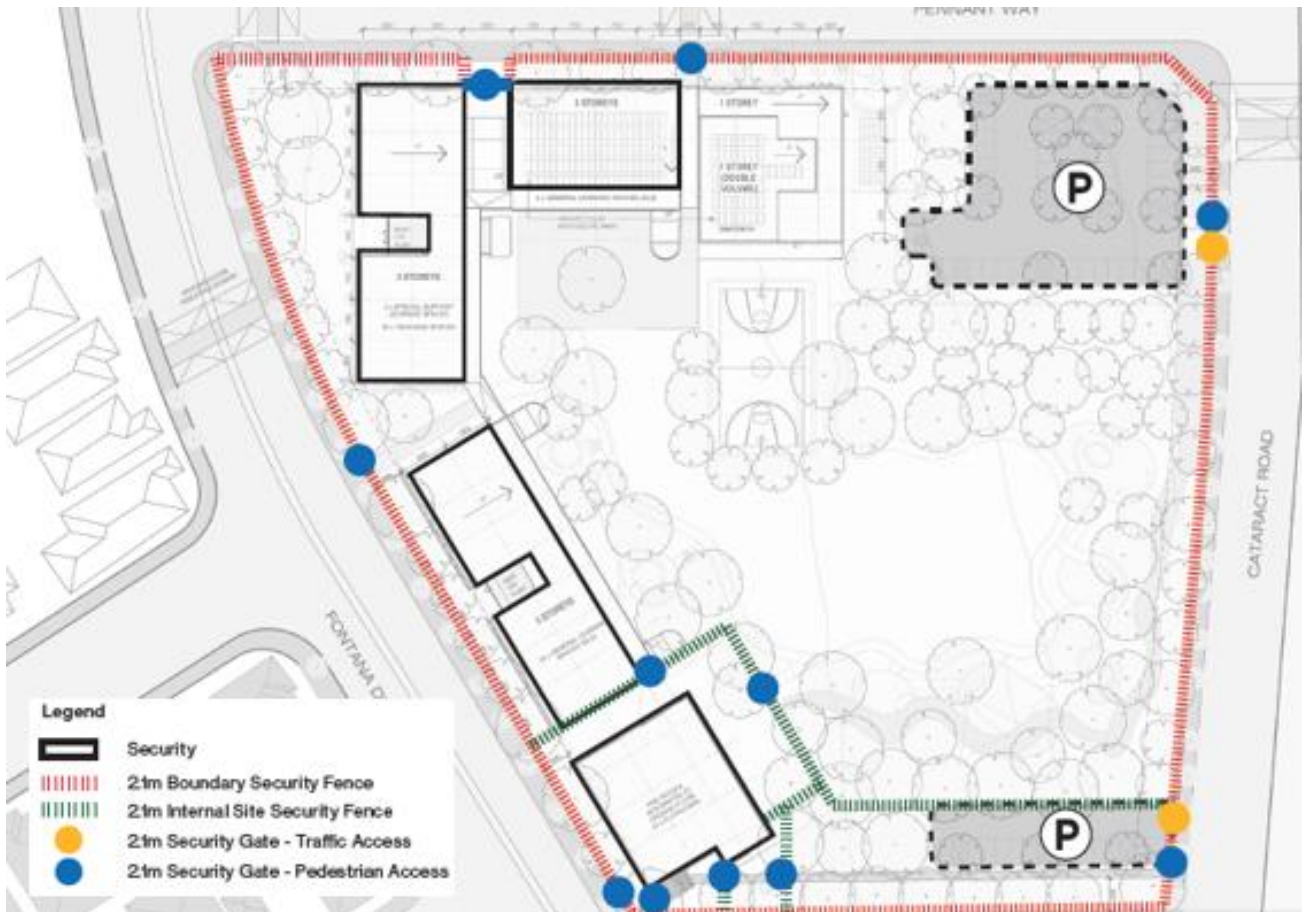


Figure 11 Site Access and Security

Source: Architectus

3.3.2 Circulation

The primary school and preschool will largely operate in isolation from each other, with separate car parking, play area and associated infrastructure, delineated by a 2.1m high internal security fence. Access between the sites will be provided via internal security gates positioned along the through-site link.

The wider site will be defined by 2.1m high security fencing, along the perimeter of the site boundary.

3.4 Access and Parking

3.4.1 Vehicular Access

Two (2) vehicular access points are located off Cataract Road, to the north east and south east of the wider site boundary. The vehicular access points will each serve the car parking facility associated with the proposed uses within the site. A 2.1m high security gate will control access into site.

3.4.2 Car Parking

The site incorporates two (2) car parking facilities, providing separate provision for the primary school and preschool. The primary school car park, located to the north eastern portion of the site, will accommodate 34 staff dedicated car parking spaces, as well as one (1) accessible space, and two (2) motorbike spaces.

The preschool car park, located to the south eastern portion of the site, will have capacity for 16 car parking spaces and one (1) accessible space. The 16 car parking spaces will provide six (6) spaces for preschool staff and ten (10) spaces for parent pick-up and drop-off.

3.4.3 Loading

Both the primary school and preschool will utilise a combined loading bay, located with the primary school car park, and positioned adjacent to the bin storage area to facilitate waste collection. The loading dock is open, with no overhead obstructions or height limitations.

3.4.4 Kiss & Drop Zones

There are two (2) Kiss & Drop zones proposed within the surrounding road network, including along the northern boundary on Pennant Way, adjacent to the main primary school entry, and to the western boundary on Fontana Drive, adjacent to a secondary entry option for the primary school. The zones have been designed to be 2.5 meters wide and 70 meters long, accommodating 12 vehicles each.

3.4.5 School Bus Zone

The school will also be served by a new bus zone located along Fontana Drive, to encourage the use of public transport. The bus zone has been designed to be 30 meters in length and three (3) meters in width, which will accommodate one (1) bus at any one time.

The existing shared pavements will be extended by approximately 1.4 meters to allow for the Kiss & Ride and bus zones.

Refer to Figure 12 below for further details.



Figure 13 Proposed Road Works

Source: Taylor Thomson Whitting (TTW)

3.4.7 Bicycle Parking

100 bicycle spaces in the form of bicycle racks are provided to the east of the primary school building. This space can be used by staff and students. Staff members will be able to access amenities, including unisex showers and changing rooms, on site.

3.5 Landscape Design

Landscape Drawings (Appendix 6) and an accompanying Landscape Report (Appendix 7) have been prepared by a landscape architect to support this REF. Drawing upon an analysis of the site and its surroundings, including the learnings of the Connecting with Country process, these documents present a site-wide landscaping strategy that incorporates a range of native plantings and includes:

- A Dharug Country inspired nature play playground.

- A games court.
- Covered and open outdoor learning and play areas.
- Landscaped setbacks to all site boundaries.
- Tree planting throughout the site.

The landscape concept design is shown in Figure 14 below.



Figure 14 Concept Landscaping Plan

Source: Oculus

3.5.1 Tree Removal and Planting

As existing, the site does not contain any trees, however is defined by structural tree planting within the surrounding road reserves. Two (2) trees are required to be removed from the street verge of Cataract Road to facilitate vehicular site access. However, the removal of these trees does not form part of this application and approval will be sought under a separate tree removal permit application to Council.

The landscape design encourages tree planting throughout the site, including:

- Perimeter planting;
- Buffer planting;
- Bush Tucker Productive Garden planting; and

- WSUD Raingarden / Bioswale Planting.

A total canopy cover of 3,380m² will be provided on site, which is equivalent to 15% of site coverage.

3.6 Sustainability

The proposal incorporates a range of sustainable design measures, as detailed in the Sustainable Development Plan (Appendix 16) prepared by a sustainability consultant, including:

- High performance glazing and building fabric
- Onsite renewable energy (solar PV arrays at roof level)
- Electric vehicle charging infrastructure provision
- High performance building systems
- Biophilic Design
- Connection to Country
- Regenerative environmental design
- Regionally sourced materials and waste segregation
- Efficient water fixtures

A Climate Change Risk Assessment was undertaken as part of the Sustainable Development Plan and sets out the various measures that have been adopted to address climate change risks:

- Selection of drought tolerant plant species and measures for reduced heat island effect to improve resilience to climate change
- Connection of site to local recycled water supply.
- Use of recycled water for irrigation.
- Selection of construction materials for reduced embodied emissions within the building
- Integration of passive design strategies, high performance building systems, and on-site
- Energy generation to minimize energy consumption and mitigate the risks associated with climate change

3.7 Utilities and Services

An Electrical and Communications Infrastructure Delivery and Management Plan prepared by an electrical services consultant (Appendix 19) and a Hydraulic Services and Utility Services Report prepared by a hydraulic services consultant (Appendix 20), that describe how the new primary school and preschool will be connected to services and utilities. This includes stormwater, electrical, mechanical services, hydraulic services, water, sewer, and gas services. The table below summarises how key services and utilities will be provided.

Table 4 Proposed Infrastructure and Services

Infrastructure/Service	Comment
Stormwater	The new primary school and preschool is proposed to be drained by a gravity system primarily consisting of eaves gutters and downpipes. The pipe system will be designed to capture and convey all runoff to the civil stormwater system.
Electrical	Consultation with Endeavour Energy indicates that the school and preschool is to be provided with a new dedicated 1000kVA pad-mount substation to satisfy the anticipated

	<p>maximum demand, which is expected to be approximately 991kVA. The substation is proposed to be located on the northern site boundary, adjacent to the main vehicle entrance to the school off Pennant Way.</p> <p>A dedicated Main Switchboard Room is proposed to be located within 50 m of the proposed substation location. Electrical distribution boards will also be provided within dedicated enclosures.</p>
Communications	<p>There is existing NBN infrastructure within the vicinity of the site, which required a new communications connection to support the school and preschool. A new Telstra connection will also be established along Cataract Road and Pennant Way before connecting to the school's Main Communications Room from Fontana Drive.</p>
Water	<p>The site has access to two (2) Sydney Water mains adjacent to the site, specifically:</p> <ul style="list-style-type: none"> • A 300mm diameter water main in Fontana Drive; and • A 200mm diameter water main in Cataract Road. <p>Potable water will be provided from a new connection to the 300mm diameter water main in Fontana Drive, which is expected to be sufficient to supply the proposal.</p>
Gas	<p>The site has access to a Jemena natural gas main that reticulates within Fontana Drive. It is assumed that the natural gas demand for the site will be low, predominantly serving the science laboratories and kitchen facilities.</p>
Sewer	<p>The existing site has access to an Altogether Group pressure sewer mains. The proposed connection for the sewer main is at the existing sewer main branch located on Fontana Drive.</p>

3.8 Signage

The REF seeks approval for a number of signs which are described in Table 5 below. The signage will be of a high-quality and will indicate the use of the building and provide wayfinding opportunities.

Table 5 Signage Details

Sign	Location	Width (mm)	Height (mm)
SN01 – Main Building Sign	Primary school front entry	300	4835
SN02 – Gate Identification Signage	Located at each perimeter fence gate location (pedestrian and vehicular)	700	700
SN03 – Site Directional Sign	Located externally, adjacent to the Admin facility, at the entry gate locations and at the internal pathway junction	500	1600
SN04 – Block/Building Identification Sign	Preschool front entry	4039	300
SN05 – Lift Sign Level Sign	Located at the lift, on each floor level	400	1260
SN06 – Hub Identification Sign	Located on the side of each building and at the entrance to each Learning Hub	400	400
SN07 – Main Front Digital Sign	Front entry	2100	4500

Source: Architectus

The proposed signage locations are shown in Figure 15 below.

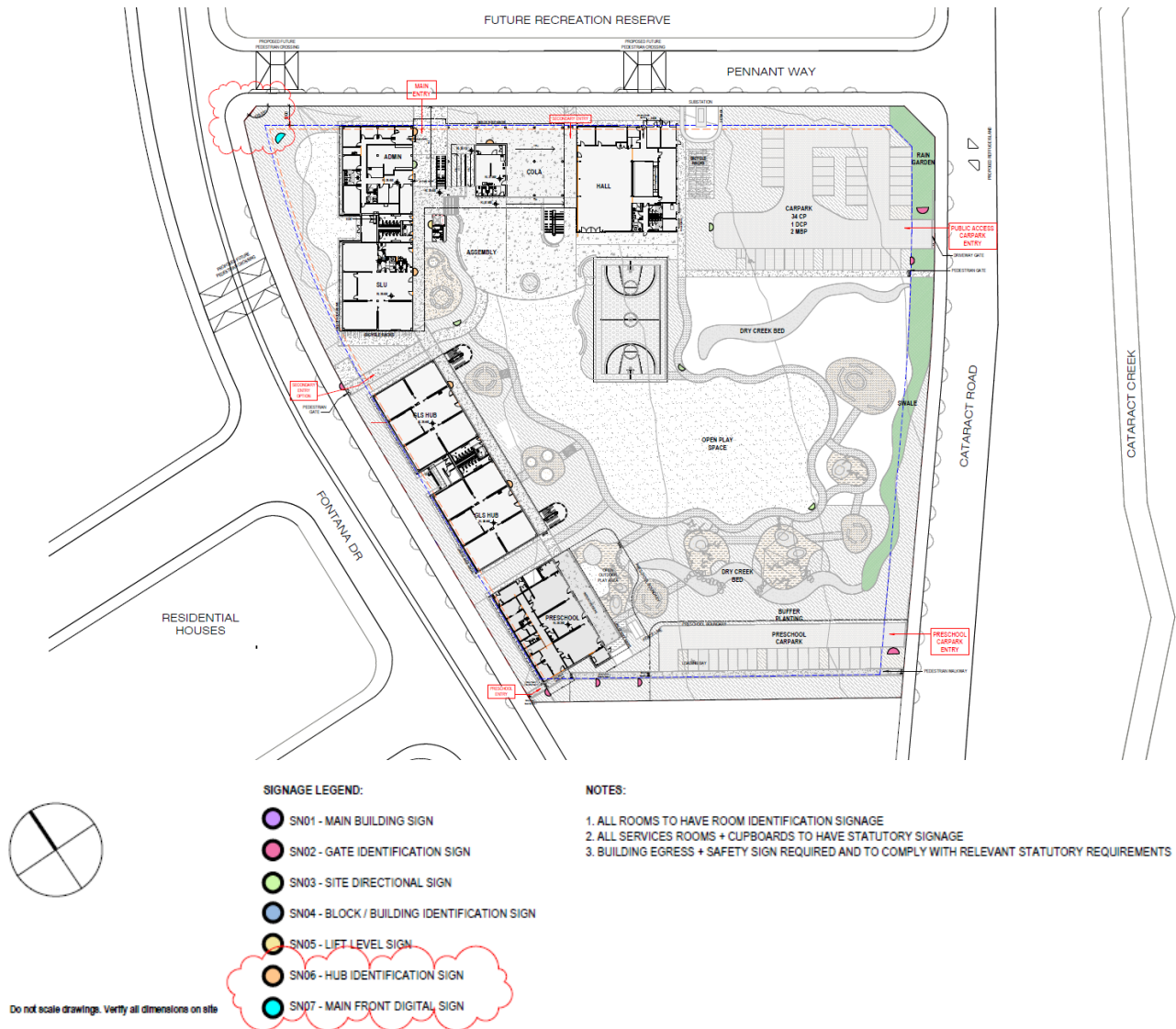


Figure 15 Proposed signage locations – Overall ground level plan

Source: Architectus

The proposed dimensions for the signs are illustrated in further detail within the Architectural Drawing Package (Appendix 3).

3.9 Waste Management

An external Bin Storage Area will be located to the north eastern portion of the site, adjacent to the loading bay within the car parking facility associated with the primary school. The Bin Storage Area will contain ten (10) 1100L mobile garbage bins for the collection of general waste and recycling.

A private waste collection contractor will be engaged to service the waste and recycling bins. The collections will be in accordance with the Department's contracts with a private waste collection service. It is assumed that general waste and recycling will be collected three times weekly (approximately every 2 days), anytime between 06:00 – 19:30 Monday to Friday.

On the day of service, a private waste collection vehicle will enter the site from Cataract Road and park in the aforementioned loading bay. The waste collection staff will collect the bins from the Bin

Storage Area. Once the bins are serviced, the collection vehicle will exit the site onto Cataract Road in a forward direction.

3.10 Construction Activities

The works are expected to be long-term. Table 6 provides a summary of the project timeframes and construction activities in further detail.

Table 6 Summary of Construction Activities

Construction Activity	Description
Construction Hours	<p>The proposed hours of construction align with the standard interim construction noise guideline construction hours and are as follows:</p> <ul style="list-style-type: none"> • 7:00am to 6:00pm, Monday to Friday; • 8:00am to 1:00pm, Saturday; and • No work without prior approval on Sundays and Public Holidays. <p>In addition to regular working hours, there will be occasional periods when out of hours work will be necessary. This may include special deliveries, hoarding installation and removal, and services connections. Crane installation and removal may need to be undertaken over a weekend, utilising both Saturday and Sunday to minimise impacts on the surrounding areas.</p>
Site Establishment	<p>The Head Contractor will provide and maintain all necessary temporary facilities required for the safe and secure performance of the works, including, but not necessarily be limited to:</p> <ul style="list-style-type: none"> • First aid facilities; • Hoardings; • Storage compounds; • Site administration facilities; • Work sheds; • Cranes; • Site amenities; • Temporary site sheds; • Bins for rubbish generated by personnel; • Access equipment, including scaffolding, barriers, platforms, ladders, etc; • Construction plant; and • Emergency vehicle access.
Materials Handling	<p>Given the anticipated site constraints a detailed craneage analysis will be undertaken to determine the type, size, position and quantity of cranes required for the most efficient material handling solution for the project. Through this exercise the following selection criteria will be considered to all crane positions:</p> <ul style="list-style-type: none"> • Coverage for the site; • Ability to service plant room areas; • Capacity for heaviest lifts • Minimal disruption to site roads and traffic flow; • Minimal disruption to internal fit out; • Ability to service all stages of project chosen location; • Redundancy in coverage to account for breakdown or emergency; and • Access to erect and dismantle cranes. <p>A significant amount of space is required to sort the material to ensure the piece install is smooth and efficient. The site may utilise a forklift or telehandler to assist with unloading, general materials handling and bins.</p>
Staging	<p>The proposal will be delivered across a single construction stage.</p>

Earthworks	To facilitate the proposal, earthworks will be undertaken across the site to achieve the desired building design levels. It will result in a total cut volume of approximately 2,845m ³ and a maximum fill of 2,241m ³ . The bulk earthworks plan is included at Appendix 12.
Construction Waste Management	Construction waste management has been outlined in the Preliminary Construction Management Plan (Appendix 22). As there are no structures currently on the site, there is not a significant amount of demolition waste expected to be generated. General construction waste will be collected and placed in appropriate waste bins to be provided on site. A waste management loading zone will be provided on site for waste collection. Non-recyclable waste will be disposed of at an approved landfill or transfer station.
Construction Jobs	146 Full-Time Equivalent (FTE)

3.11 Operational Uses

3.11.1 Primary School

The new primary school will provide publicly accessible educational facilities for all capabilities, with a capacity for 1,000 children and 68 staff members. The school will operate as per the following hours:

- Core hours: 08:00–16:00 Monday-Friday
- Out of School Hours Care: 06:30 - 09:00, 15:00 - 18:30 Monday-Friday
- Community use: 09:00 to 22:00 Saturday, 09:00 to 18:00 Sunday

The Out of School Hours Care will be operated by external / private providers, and will utilise the existing primary school facilities, accommodating approximately 15% of student capacity.

The school hall and sports court will be used by local community groups, with possibility for the library to also be accessible to the community out of the standard school hours.

3.11.2 Preschool

The preschool will be operated by the Department, and will cater to students aged between 3-5 years old, with a maximum capacity for 60 children, supported by 6 staff members.

The preschool is expected to operate during the following hours, however this will be confirmed prior to operation:

- 09:00 – 15:00 Monday – Friday.

4. Proposal Need and Alternatives

4.1 Proposal Need

The North West Growth Area and Hills district are undergoing substantial transformation, including through the delivery of the Box Hill North Precinct (now known as 'Gables'), as identified in The *Hills Development Control Plan 2012* (The Hills DCP). A Masterplan was prepared for the precinct, which as illustrated in Figure 16, is envisioned as a high-quality, integrated and ecologically sustainable urban neighbourhood with a mixed-use town centre, approximately 4,000 dwellings, rehabilitated waterways and a new school.



Figure 16 Box Hill North (now 'Gables') Precinct - Introduction

Source: The Hills DCP 2012, edits by Ethos Urban

A new primary school at Gables was announced by the NSW Government as part of a broader investment for the delivery of new and upgraded schools. The proposal was identified as priority to respond to the demand for educational facilities as a result of the fast-growing population, and alleviate capacity pressures on existing school infrastructure in the existing catchment.

In 2020, a subdivision development application (No. 1099/2019/ZB) was approved and registered with the NSW Land Registry Services to create Lot 301 DP 1287967, which was subsequently transferred to the Minister for Education and Early Learning to facilitate the construction of the school.

4.2 Proposal Objectives

The proposal responds to the need for a new primary school to provide contemporary, fit-for-purpose education facilities to support the growing population of the Gables precinct, that are accessible services for all capabilities. Informed by this need, the proposal's objectives include:

- Respond to the urban growth of Gables and the broader North West Growth Area in an effective and sustainable manner.
- Include a public preschool to support families and their children with the transition from preschool to school.
- Provide contemporary learning spaces that meet aspirational objectives and functional requirements.
- Minimise the proposal's environmental impacts through appropriate design and mitigation measures
- Enable the school to become a central place in the community by acting as a hub and conduit for services that will support their education.
- Enable greater efficiency in the use of human and physical resources through collaborative use of assets and partnerships.
- Incorporate ecologically sustainable development (**ESD**) principles in the school's design and operation.

4.3 Analysis of Alternatives

An assessment of the options to address the need identified above is provided within the table below.

Table 7 Assessment of Options and Alternatives

Option	Discussion	Preferred Option
Option 1: Do Nothing	Under the 'do nothing' scenario, the site will remain vacant and underutilised. This option does not provide a desirable outcome as it fails to adequately plan for future population growth and align the future of the site with the Council's strategic vision for the Box Hill North Precinct Masterplan under The Hills DCP.	Option 1 is not preferred as it would represent a missed opportunity to deliver a much-needed educational facility to support the evolving Box Hill North precinct.
Option 2: Alternative Design Approach / Site Configuration	A number of alternative designs were considered for the primary school and preschool during the design development of the activity. The initial design approach sought to locate all built form associated with the primary school outside of the previously advised 100m Bushfire Response Buffer Zone. The preschool was initially planned to be located along the southern boundary of the site. However, this advice has since been updated and such restrictions removed, which has allowed for a higher quality built form and urban design outcome that better responds to the site's parameters.	Option 2 is not preferred as the alternative design approach would not represent the best and most efficient use of the land available, nor the optimal built form and urban design outcome, while meeting the requirements of the end users.
Option 3: The Proposed Activity	Following consideration of the alternatives, the proposed scheme was considered to be the most appropriate and successful in facilitating the best built form and planning outcome for the site, in accordance with the Box Hill North Precinct Masterplan. The proposal will ensure the provision of long-term and significant pieces of social infrastructure, while also delivering on the public benefits within The Hills Shire Council LGA. Given the site's strategic location within an evolving mixed-use precinct, that is highly accessible in terms of public transport, the new educational and care facilities are considered complementary uses to the surrounding precinct. The built form has been informed by a considered analysis of the surrounding context and amenity concerns in consideration of the residential development.	Option 3 is preferred as the proposal is strategically located to contribute to the vision for the precinct in developing high-quality educational facilities. There is a clear strategic need for the proposed primary school and preschool, and alternatives are considered to be less desirable.

5. Statutory and Strategic Framework

5.1 Permissibility and Planning Approval Pathway

State Environmental Planning Policy (Transport and Infrastructure) 2021 aims to facilitate the effective delivery of infrastructure and educational establishments across the state and provides that various developments for the purposes of a government school are permitted without consent. The proposed activity is development permitted without consent as outlined at Table 8.

A series of exempt development will be undertaken under Schedule 5 of the TI SEPP, including, but not limited to the provision of:

- Signage;
- Landscaping; and
- Lighting.

For completeness, these elements are shown in this REF but do not require approval.

Table 8 Description of Proposed Activities under the TI SEPP

Division and Section within TI SEPP	Description of Works
3.1 Aims	<p>The activity is consistent with the aims of the TI SEPP as set out at Section 3.1 in that it:</p> <ul style="list-style-type: none"> • Will be consistent with design considerations for educational establishments and early education and care facilities while minimising impacts on surrounding areas; • Delivers new infrastructure on government owned land and provides an educational establishment for the local area; • Will be consistent with consultation requirements with relevant public authorities during the assessment process or prior to the activity commencing; • Has been developed in accordance with the NSW planning framework with the National Quality Framework that regulates early education and care services; and • Considers joint and shared use of the facilities of educational establishments with the community through appropriate design.
3.37A	<p>The proposed activity comprises development for the purposes of a government school (including Relevant Preschool) on behalf of a public authority on land which does not contain an existing or approved school and is in the R4 High Density Residential Zone which is a prescribed zone under the TI SEPP.</p> <p>The proposed activity involves the construction of building(s) with a maximum height of 3 storeys which is less than the greater of four storeys or the height limit of 16 meters in the environmental planning instrument applying to the site.</p> <p>Appropriate consultation having regard to the SCPP—new health services facilities and schools, and the stakeholder and community participation plan will be carried out, refer to Section 6.</p> <p>The Design Principles set out in the Design Guide for Schools have been considered as set out in the Architectural Design Report at Appendix 4.</p> <p>With respect of the Relevant Preschool, the project's architect has provided an assessment of the Child Care Planning Guideline and National Quality Framework at Appendix 4.</p>
Schedule 8 -	The Design Quality Principles set out in Schedule 8 of the TI SEPP have been

Division and Section within TI SEPP	Description of Works
Design quality principles in schools— Chapter 3	considered as set out in the Architectural Design Report at Appendix 4.
Division 4 Electricity generating works or solar energy systems Section 2.38(4) Solar Energy Systems	Solar Energy Systems Section 2.38 of the TI SEPP allows for development for the purpose of a solar energy system may be carried out by or on behalf of a public authority without consent on any land if it is ancillary to an educational establishment. By definition, the primary school is identified as an educational establishment and therefore the proposed PV panels at roof level, to be carried out by the Department, will be carried out without consent.
Division 1 Electricity Transmissions or Distribution Networks Section 2.44 - Development permitted without consent	Electricity Transmission or Distribution Services Section 2.44 of the TI SEPP allows for development for the purpose of an electricity transmission or distribution network to be carried out by or on behalf of an electricity supply authority or public authority (DoE) without development consent. Furthermore, the works may be carried out as they do not include development on land reserved under the National Parks and Wildlife Act 1974 (NPW Act).
Section 2.109 Road Infrastructure	Road Infrastructure Development for the purpose of a road or road infrastructure may be carried out by a public authority without consent on any land. The proposed works involve the carrying out of work on a public road. This includes the use of the road for a work zone during construction, and new pedestrian crossings, pedestrian refuge islands, footpath widening, school bus zone, and Kiss & Drop zone.
Division 18 Sewerage Systems Section 2.126 Development permitted with or without consent	Sewerage Systems Section 2.126 permits development for the purpose of a sewage reticulation system to be carried out without consent on any land, if it is done in a 'prescribed circumstance'. Section 2.126(1) identifies that development is carried out in a 'prescribed circumstance' when it is carried out by or on behalf of a public authority (DoE).
Division 20 Stormwater Management Systems Section 2.137 – Development permitted without consent	Stormwater Management Systems Section 2.137 of the TI SEPP allows for development for the purpose of a stormwater management system (including a water reticulation system) to be carried out by or on behalf of a public authority (DoE) without consent on any land.
Division 21 Telecommunications and other communication facilities Section 2.141 - Development permitted without consent	Telecommunication Services Section 2.141 allows for development for the purpose of a telecommunications facilities to be carried out without development consent on any land by or on behalf of a public authority (DoE).
Division 24	Water Services

Division and Section within TI SEPP	Description of Works
Water Supply Systems Section 2.159 – Development permitted without consent	Section 2.159 allows for the development of water reticulation systems without consent if it is carried out by or on behalf of a public authority (DoE) on any land by or on behalf of a public authority.

Activities permissible without consent require environmental impact assessment in accordance with Division 5.1 of the EP&A Act and are assessed and determined by a public authority, referred to as the determining authority. The Department is the proponent and determining authority for the proposed works.

Additionally, section 5.7 of the EP&A Act states that an activity that is likely to significantly affect the environment must be subject of an Environmental Impact Statement rather than an REF. The effects of the activity on the environment are considered in Section 0 and have been assessed as a less than significant impact and can therefore proceed under an REF assessment.

Section 171(1) of the EP&A Regulation notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the guidelines that apply to the activity.

The *Guidelines for Division 5.1 Assessments* (DPE June 2022) and the *Guidelines for Division 5.1 assessments Consideration of environmental factors for health services facilities and schools Addendum* (DPHI, October 2024) provide a list of environmental factors that must be taken into account for an environmental assessment of the activity under Division 5.1 of the EP&A Act. These factors are considered in detail at Section 0.

5.2 Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the EPBC Act do not affect the proposal as it is not an activity that takes place on or affects Commonwealth land or waters. Further, it is not activity carried out by a Commonwealth agency or activity on Commonwealth land, nor does the proposed activity affect any matters of national significance. An assessment against the EPBC Act checklist is provided at Table 9.

Table 9 EPBC Act Checklist

Consideration	Yes/No
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No
Will the activity have, or likely to have, a significant impact on listed migratory species?	No
Will the activity involve any nuclear actions?	No

Consideration	Yes/No
Will the activity have, or likely to have, a significant impact on Commonwealth marine areas?	No
Will the activity have any significant impact on Commonwealth land?	No
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No

5.3 Environmental Planning and Assessment Act 1979

Part 5 of the EP&A Act applies to activities that are permissible without consent and are generally carried out by a public authority. Activities under Part 5 of the EP&A Act are assessed and determined by a public authority, referred to as the determining authority. The Department is a public authority and is the proponent and determining authority for the proposed works.

For the purpose of satisfying the objects of the EP&A Act relating to the protection and enhancement of the environment, a determining authority, in its consideration of an activity shall, notwithstanding any other provisions of the Act, the provisions of any other Act or of any instrument made under the EP&A Act or any other Act, examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity (refer to subsection 1 of section 5.5 of the EP&A Act).

The activity is not within or nearby to a wilderness area (within the meaning of the *Wilderness Act 1987*) and therefore will not have an effect on any wilderness area. Therefore, assessment under section 5.5(3) of the EP&A act is not required.

5.4 Environmental Planning and Assessment Regulation 2021

Section 171(1) of the EP&A Regulation notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the guidelines that apply to the activity.

The *Guidelines for Division 5.1 Assessments* (DPE June 2022) and the *Guidelines for Division 5.1 assessments Consideration of environmental factors for health services facilities and schools Addendum* (DPHI October 2024) provide a list of environmental factors that must be taken into account for an environmental assessment of the activity under Part 5 of the EP&A Act. These factors are considered in detail at Section 0.

Further, Section 171(4) outlines circumstances where an REF must be published on the Department's website or the NSW Planning Portal. This REF is required to be published as the activity has an estimated development cost of more than \$5 million, in accordance with Section 171(4).

In addition, Section 171A of the EP&A Regulation requires the consideration of the impact an activity in a defined catchment. This is considered further below under the section below.

5.5 Other Approvals and Legislation

Table 10 identifies any additional approvals that may be required for the proposed activity.

Table 10 Consideration of other approvals and legislation

Legislation	Relevant?	Approval Required?	Applicability
State Legislation			
<i>Rural Fires Act 1997</i>	Yes	Yes	The proposed activity is located on land partially mapped as bush fire prone land. As the school is classified as a Special Fire Protection Purposes, a Bushfire Safety Authority under Section 100B(3) of the Rural Fires Act 1997 is to be obtained.
<i>Water Management Act 2000</i>	Yes	No	The site is located adjacent to the Cataract Creek watercourse that is within 40 meters of the school's eastern boundary. The activity does not involve water use, water support work, drainage work or flood work. DoE is a public authority and so is exempt from a controlled activity approval under the water management act.
<i>Biodiversity Conservation Act 2016</i>	No	No	The proposed activity occurs on a cleared, suburban site and will not affect important vegetation or habitat. It will not have a significant impact upon any threatened species, ecological communities, or populations such that a viable local population will be placed at risk of extinction.
<i>Heritage Act 1977</i>	No	No	The site is not a State or locally listed heritage item and the proposal will have no adverse impact on surrounding items of heritage significance. Therefore, the provisions of the Heritage Act 1977 do not apply to the proposed activity.
<i>Contaminated Lands Management Act 1997</i>	Yes	No	The site is not listed on the register of contaminated sites. A detailed Site investigation confirms the site is suitable for the proposed school and with no identified soil contamination, the report did not conclude that active remediation is required in order for the site to be suitable for the proposed activity.
<i>Roads Act 1993</i>	Yes	Yes	Section 138 of the NSW Roads Act requires that all activities undertaken within Council's road reserve be approved by Council prior to the activities being undertaken. The Department will need to obtain a Section 138 Approval for works within the road reserve / connection of any new driveways.
<i>Local Government Act 1993</i>	Yes	No	Various activities (e.g. water, sewer, stormwater connections, amongst other things) generally require the approval of Council under Section 68 of the Local Government Act 1993. However, pursuant to Section 69 (Crown exemption from approval to do things incidental to erection or demolition of building) of the Local Government Act 1993, Section 68 does not require the Crown, or a person prescribed by the regulations to obtain the approval of Council to do anything that is incidental to the erection or demolition of a building.
<i>Environmental Planning and Assessment Regulation</i>	Yes	No	The proposal is located within the Hawkesbury-Nepean Catchment which is a regulated catchment. Section 171A of the EP&A Regulation sets out additional matters to take into account when considering the likely impact of an activity on

Legislation	Relevant?	Approval Required?	Applicability
2021 (Section 171A)			the environment in a regulated catchment. This assessment is carried out at Section 7.
Electricity Supply Act 1995	Yes	No	The Network Operator, in carrying out its functions is required to notify Council in accordance with Section 45 prior to works on the substation commencing.
State Legislation – State Environmental Planning Policies			
State Environmental Planning Policy (Planning Systems) 2021	Yes	No	<p>Section 2.6 of <i>State Environmental Planning Policy (Planning Systems) 2021</i> (Planning Systems SEPP) states that development is declared to be SSD for the purposes of the EP&A Act if:</p> <ul style="list-style-type: none"> • The development is not permissible without development consent under Part 4 of the EP&A Act. • The development is specified in Schedule 1 or 2. <p>Clause 15 of Schedule 1 of the Planning System SEPP states that:</p> <p>Development that has an estimated development cost of more than \$20 million that—</p> <p>(a) is for the purpose of a new school.</p> <p>The Gables New Primary School and Preschool project has an estimated capital investment value over \$20 million and is for a new government school (including preschool). However, as documented in Section 5 of this REF the activity meets the requirements of Section 3.37A of the TISEPP and therefore can be assessed as development permitted without consent. The proposal must be assessed under Part 5 of the EPA Act 1979 and not as State Significant Development under Part 4 of the EPA Act 1979. The land is not owned by an Aboriginal Land council. There are no concurrent consent authorities to this activity.</p>
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Yes	No	<p>The consent authority is required to consider the likely impact of the activity on the environment within a regulated catchment. These controls relate to water quality and quantity (Section 6.6), aquatic ecology (Section 6.7), flooding (Section 6.8), and recreation and public access (Section 6.9).</p> <p>In this regard, the proposed activity will include sufficient stormwater infrastructure and mitigation measures to ensure there will be no substantial impact to the catchment. The activity includes water quality controls to manage overland flow to control water quality and quantity. Where pipe capacity is exceeded, stormwater will be conveyed as overland flow which have been designed at the minimum 1% Annual Exceedance Probability (AEP) in accordance with Council's requirements. The activity will not include the clearing of riparian vegetation that requires an approval under the <i>Water Management Act 2000</i> (WM Act) or the <i>Fisheries Management Act 1994</i> (FM Act). All erosion that results from flooding during the construction and operational stages can be mitigated through an erosion and sediment control plan. Furthermore, there will be no impacts on recreational land uses as all stormwater will be collected within pipes and all overland flow have been designed in accordance with Council's requirements.</p>

Legislation	Relevant?	Approval Required?	Applicability
			Accordingly, the consent authority is able to grant consent to the activity.
<i>State Environmental Planning Policy (Sustainable Buildings) 2022</i>	Yes	No	<p>Chapter 3 of this SEPP applies to non-residential development that involves erection of a new building with capital investment value over \$5 million or alterations, enlargement, or extension of an existing building if the development has a capital investment value of \$10 million or more. As such, Chapter 3 applies to the activity.</p> <p>However, this SEPP does not apply to development under Part 5 of the EP&A Act. Notwithstanding, the provisions of the SEPP should be considered as part of the environmental impact assessment for the project.</p> <p>A Sustainable Development Plan has been prepared by a sustainability consultant is provided at Appendix 16 which includes an assessment of the environmentally sustainable development measures incorporated into the design, as per Chapter 3 of the SEPP.</p>
<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>	Yes	No	A Detailed Site Investigation prepared by a contamination consultant (Appendix 24) confirms the site is suitable for the proposed school and with no identified soil contamination, the report did not conclude that active remediation is required in order for the site to be suitable for the proposed activity, as set out further in the advice letter prepared by the contamination consultant, included at Appendix 25.
<i>State Environmental Planning Policy (Industry and Employment) 2021</i>	Yes	No	<p>Chapter 3 Advertising and Signage provisions apply. Any new signage installed as part of the activity will need to comply with Section 3.1(1)(a) of the SEPP, whereby it:</p> <ul style="list-style-type: none"> • is compatible with the desired amenity and visual character of an area, and • provides effective communication in suitable locations, and • is of high-quality design and finish. <p>The signage that forms part of the activity is detailed in the signage plans provided in Appendix 3.</p> <p>The proposed signage is consistent with the objectives of Section 3.1(1)(a) of <i>State Environmental Planning Policy (Industry and Employment) 2021</i> as they are compatible with the proposed activity. The proposed signage provides effective communication, are generally integrated into the proposed building design and will be of a high-quality design and finish. The proposed signs are also consistent with the assessment criteria specified in Schedule 5 of the SEPP, as demonstrated in Appendix 40.</p>

5.6 The Hills Development Control Plan 2012

The site is within the Box Hill North Precinct (now known as 'Gables') as identified in The Hills DCP. The aim of the section is to identify the built form parameters for Box Hill North to facilitate the development of the mixed-use neighbourhood, guided by a vision to create a high quality, integrated and ecologically sustainable urban environment, integrated with good public transport accessibility, open space, community facilities and employment opportunities.

The vision is underpinned by a number of objectives, including to provide community and social infrastructure, such as schools and sporting infrastructure that provide for a range of facilities and opportunities, while enhancing pedestrian and bicycle connections.

As set out in Section 3 of this REF, the activity includes the provision of a primary school and preschool with associated open space and play space provision, including a sports court, which will also be available outside of school hours to the local community.

The integrated pedestrian network connecting to new off-site pedestrian works within the surrounding road network, alongside sufficient bicycle storage provision, will encourage active travel to and from the site where possible.

5.7 Strategic Plans

The following table lists any strategic plan that is required to be considered if it is applicable to the proposed activity.

Table 11 Consideration of applicable Strategic Plans

Strategic Plan	Assessment
<i>NSW State Priorities</i>	<p>NSW State Priorities are twelve high-level priorities for the State, being:</p> <ul style="list-style-type: none"> • 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. <p>The proposal seeks to deliver a new primary school and preschool, in turn creating additional educational capacity to serve the existing and evolving local community. 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.</p>
<i>Future Transport Strategy 2056</i>	<p>The Future Transport Strategy 2056 sets the 40-year vision, directions and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. This Strategy aims to place the customer at the centre and with feedback harness the rapid advancement of technology and innovation across the transport system to transform customer experience, improve communities and boost economic performance (TfNSW 2017).</p> <p>The proposal is consistent with the Strategy by delivering increased educational capacity in The Hills Shire Council LGA. The proposal does not prevent the objectives of the Strategy from being achieved.</p>

Strategic Plan	Assessment
<p><i>Greater Sydney Region Plan, A Metropolis of Three Cities</i></p> <p><i>Central City District Plan</i></p>	<p>The proposal is consistent with the broader strategic vision as detailed in the plans, through the delivery of a new, high quality school to meet Sydney's growing educational needs. The proposal will take enrolment pressure off the existing schools in the area and ensure that a high-quality educational facility is provided for the future population of the school catchment. The proposal is also consistent with the other, wider goals and directions contained within the Plan, including:</p> <ul style="list-style-type: none"> • The creation of temporary job opportunities in manufacturing, construction and construction management, and on-going jobs in teaching and administration for the wider Hills LGA. • Deliver additional educational infrastructure for the catchment that will take enrolment pressure off the existing schools in the region. • Provide contemporary facilities to meet future educational standards and provide increased jobs and growth • Deliver a sustainable, well-designed building, that will make a valued contribution to economic growth in Sydney and provide increased learning and employment opportunities.
<p><i>The Hills Shire's Local Strategic Planning Statement – Hills Future 2036</i></p>	<p><i>The Hills Shire's Local Strategic Planning Statement – Hills Future 2036</i> (The Hills Shire's LSPS) was prepared to guide Council's land use planning for the next 20 years, implements priorities from Council adopted strategies and gives effect to State Government strategic directions for the LGA.</p> <p>The Hills Shire's LSPS does not identify any specific strategic vision for the site. Notwithstanding, the proposal aligns with the planning priorities of The Hills Shire's LSPS in that it will:</p> <ul style="list-style-type: none"> • Provide necessary infrastructure to support the needs of the current and future population. • Enable opportunities for innovation, knowledge sharing and collaboration by providing high quality education infrastructure. • Stimulate job growth through the provision of jobs during construction and jobs during operation. • Provide a fit-for-purpose school that is attractive, sustainable, well designed and efficient. • Provide many benefits to the local area, socially and economically.
<p><i>The Hills Shire Council Integrated Transport and Land Use Strategy 2019</i></p>	<p><i>The Hills Shire Council's Integrated Transport and Land Use Strategy 2019</i> seeks to achieve the vision of the 30-minute city, by coordinating the delivery of transport, infrastructure and a mix of land uses, while encouraging more sustainable modes of transport.</p> <p>The primary school and preschool will serve the existing and growing local community within the Box Hill North Precinct, and it is expected that sustainable modes of transport will be used to access the site, through the provision of sufficient bicycle storage, end of trip facilities, a new public school bus zone, as well as new and upgraded pedestrian facilities within the surrounding roads.</p>
<p><i>The Hills Shire Council Recreation Strategy 2019</i></p>	<p>The Council's Recreation Strategy seeks to encourage planning for open spaces to meet the expected population growth in The Hills Shire Council LGA, including the delivery of sporting infrastructure that can be shared by the community outside of standard school hours. The proposal does include the opportunity for community use at weekends, utilising the school hall and sports court.</p>

Strategic Plan	Assessment
<i>The Hills Shire Council Environment Strategy 2019</i>	The Council's Environment Strategy promotes increasing urban tree canopy cover. The site, as existing, does not contain any trees. The proposed landscaping design encourages a significant increase in tree canopy coverage, equating to 15% site coverage. Refer to Appendix 6 and 7 for further details.
<i>Better Placed: Design Guide for Schools</i>	The Better Placed Design Guide for Schools sets out the Design Quality Principles in accordance with Schedule 8 of the TI SEPP. The Architectural Design Report (Appendix 4) sets out how the proposal has been guided by, and complies with, the 7 design quality principles in schools.

6. Consultation

A Stakeholder Engagement Report has been prepared by the NSW Department of Education and is provided at Appendix 30. This report has been prepared to summarise the engagement with key meetings with stakeholders, a summary of feedback received, and issues raised by specific stakeholders and how feedback has been considered.

6.1 Early Stakeholder Engagement

Table 12 provides a summary of early stakeholder (non-statutory) consultation undertaken to inform project development and preparation of the REF.

Table 12 Early Stakeholder Engagement Activities Summary

Stakeholder	Feedback Topics	Outcomes
The Hills Shire Council	Traffic and Parking Engineering Waste Landscaping	The Hills Shire Council requested further information to be provided with the proposal. In response, this REF is supported by a Transport and Accessibility Impact Assessment (Appendix 13), a Stormwater Management Plan (Appendix 11), an Operational Waste Management Plan (Appendix 38), Landscape Drawings (Appendix 6) and a supplementary Landscape Design Report (Appendix 7).
Transport for NSW	Traffic and Parking	Transport for NSW did not have any comments on the proposal.
TfNSW Transport Working Group	Transport	The TfNSW Transport Working Group requested a review of the scheme and an assessment of the proposed impact on the surrounding area in relation to traffic. A Transport and Accessibility Impact Assessment has been prepared by a transport consultant and is provided at Appendix 13.
State Design Review Panel (SDRP)	Design	The SDRP provided recommendations for elements to be incorporated into the design. An Architectural Design Report justifying the design approach of the proposal is provided at Appendix 4.
RFS	Bushfire	The RFS requested the project obtain a bushfire assessment report prepared by an accredited consultant to demonstrate compliance with Planning for Bush Fire Protection (PBP) 2019. A Bushfire Protection Assessment has been provided at Appendix 33.
Fire and Rescue NSW	Fire and Safety	Fire and Rescue NSW advised that there was insufficient information available, at the time of consultation, for the fire safety portion of the building to provide comments. A BCA Report has been provided at Appendix 35 for further information.
Sydney Water	Potable Water Wastewater Servicing	Sydney Water requested further investigations to determine the servicing requirements for the site. Sydney Water provided a Section 73 Notice of Requirements on the 27 August 2024, which

Stakeholder	Feedback Topics	Outcomes
		must be completed by 27 August 2025. A Hydraulic Services Report has been prepared and is included at Appendix 20.
Department of Climate Change, Energy, the Environment and Water (DCCEEW)	Heritage	The DCCEEW did not provide any comments on the proposal.
NSW State Emergency Service (SES)	Flood Risk	SES recommended that an assessment of the flood risk be completed. A Flood Impact and Risk Assessment, alongside a Flood Emergency Response Plan have been provided at Appendix 9 and 10 respectively.

6.2 Other Stakeholder Engagement

Additional consultation beyond statutory requirements has been undertaken with the following groups:

- Project working groups
- Residents surrounding the school site
- Mailing list for the project
- Box Hill Public School community
- Local Aboriginal Land Council
- Aboriginal Education Consultative Group

The following table is a summary of the key consultation activities undertaken.

Table 13 Consultation Activities Undertaken

Stakeholder	Feedback Topics	Outcomes
Local Aboriginal knowledge holders Muru Mittigar	Feedback on design and incorporating Connecting with Country principles in design	Design elements incorporated in the Connecting with Country report.
Neighbours surrounding the site	What is important to the community	Public transport and traffic impacts were the most prevalent feedback received, followed by the timely delivery.
Mailing list for the project	What is important to the community	Public transport and traffic impacts were the most prevalent feedback received, followed by the timely delivery.

A community engagement session was held on 26 September 2024 at Slidey Park, located on Fontana Drive to the south of the site, whereby project information boards were set up and leaflets distributed, to inform the community about the project and seek feedback.

Table 14 sets out the project's responses to considerations raised during consultation with the various stakeholders.

Table 14 Response to considerations raised during consultation

Consideration Raised	Response	Mitigation Measure
Traffic management	We are consulting with Transport for NSW (TFNSW), The Hills Shire Council and traffic specialists to identify ways to minimise traffic impacts from the new primary school. As part of the consultation with TfNSW and the Council, a Transport Working Group (TWG) has been established. Three meetings have been completed, with the last and concluding meeting/presentation held on 5th June 2024.	N/A
Landscaping and shading	The project includes outdoor spaces which meets the Department's guidelines. The outside play space will include a combination of shaded and open areas, satisfying the need to provide shade in summer and warmth in winter.	N/A
Construction timeline	We expect to begin construction in mid- 2025, subject to statutory planning approval and working to have the school ready to welcome students for Day 1 Term 1 2027.	N/A
Public Transport	We are consulting with Transport for NSW (TFNSW), The Hills Shire Council and traffic specialists to help us identify the transport needs for the school. As agreed during the TWG meeting in June '24, TfNSW informed that bus 643 will be extended to pass through the proposed school and terminate at Santa Sophia Catholic College. This adjustment will be able to accommodate students outside of the walking catchment to travel to / from Gables PS. This update will happen prior to school opening year.	N/A
Intake area	The school enrolment intake area will be confirmed closer to the school opening and will be based on the most up to date demographic data and detailed projections on the number of school aged children living in the local area at the time the school opens.	N/A

6.3 Statutory consultation

Consultation has been undertaken with in accordance with statutory requirements under the TI SEPP and having regard to the SCPP DPHI and the SCPP DoE.

The REF was exhibited on the NSW Government website and documents were accessible via an 'exhibition' tab on the 'projects' dropdown menu for a period of 28-days.

- Exhibition of the REF package on the NSW Government website was managed by the Department of Education's Corporate & Digital Communications team.
- Notification letters were sent to Council, SES, RFS and adjoining landowners.
- Submissions were issued and received by the Assessments team.

Comments received have carefully considered and responded to in **Table 15** below.

Table 15 Response to issues

Key Issue	Submission	Project Response
The Hills Shire Council		
Transport, Access and Parking	<p>The current number of parking spaces proposed is inadequate (based on a comparison of the current parking arrangements at Bella Vista Public School). Inadequate on-site parking will push those needing to park further out onto the surrounding local road network (which in turn causes other issues). Given the building heights proposed, a multi-deck carpark should be considered on this site to address parking demand.</p>	<p>A Response to Submission Letter has been prepared with respect to the transport, access and parking matters (Appendix 43), which provides a detailed response. The project design was informed by consultation with a number of stakeholders, including the Hills Shire Council as part of the Transport Working Group meetings where the Council did not raise any concerns with the proposal at the time, including the provision of 1 car parking space per every 2 staff members. The current provision totals 50% provision of parking spaces for staff once the school reaches full capacity. at opening year, the 35 car parking spaces proposed will accommodate 70% of the staff members. Notwithstanding this, the project is delivering a range of transport infrastructure works and public domain improvements, including a bus zone, upgraded pedestrian walkways, and bicycle parking, to promote the use of active and sustainable modes of transportation. The preliminary School Transport Plan (provided at Appendix 14) set out ways in which the School will promote active modes of transport to ultimately alleviate traffic impacts upon the surrounding road network, which will be developed further prior to operation, as detailed in the mitigation measures provided at Appendix 1. The Transport and Accessibility Impact Assessment (Appendix 13) further justifies the parking provision on site and confirms that the provision is appropriate with consideration of changing travel behaviours to a lower car driver mode split, which is expected to occur over time. In addition, a greater provision of car parking, through an extension to the at-grade car parking, or a multi-deck car park as suggested by Council, would be both visually intrusive and significantly reduce the available open space available to students.</p> <p>While the school does not rely on the local street network, it is acknowledged that there is a notable availability of on-street parking throughout the surrounding road network to accommodate any additional demands. The nature of the school operation means there would not typically be overlap of parking demand in the residential locality and school operation hours.</p> <p>Further, the school is serviced by a regular bus route direct to Rouse Hill Metro station, which provides fast and frequent rail connections to broader metropolitan Sydney. The bus connection to metro is only 16 minutes, and so the school has good access to fast and frequent public transport within close proximity. This supports the overall strategy to seek a higher mode shift for staff, further supported by the broader strategy including local staff recruitment and site-specific school</p>

Key Issue	Submission	Project Response
		<p>transport plan. T</p> <p>The REF includes assessment on the suitability of the staff parking ratio and has included an additional mitigation measures requiring a review of the success of the staff parking strategy and if the school finds it needs to increase the staff at-grade car park, it should consider doing so under Schedule 5 of <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> as exempt development.</p> <p>As such, it is ultimately concluded that the proposed transport strategy will achieve appropriate outcomes for the site.</p>
	A separate submission must be made to the Local Traffic Committee via Council's Traffic and Roads Management team seeking Council's approval for the installation of 4 wombat pedestrian crossings and 3 new pedestrian refuges. Prior to consideration by the Committee, community consultation on the pedestrian crossings and refuges may be required to be undertaken by the DOE, following approval by Council. All costs associated with the implementation of any approved pedestrian crossings & refuges shall be borne by DOE.	An approval will be sought from the Local Traffic Committee under Section 138 of the Roads Act 1993 following approval of the activity, prior to construction. This has been included as a mitigation measure at Appendix 1.
	Pedestrian crossings and refuges shall be constructed in accordance with Council's requirements and relevant standards including lighting that is compliant with the requirements of AS 1158.	This has been included as a mitigation measure in the updated Mitigation Measures at Appendix 1. An approval will be sought from the Local Traffic Committee under Section 138 of the Roads Act 1993 following approval of the activity, prior to construction.
	A footpath connection is required to be provided throughout the entire frontage of the school site. As per the report, the existing The Hills Shire Council footpath on Pennant Way and Fontana Dr shall be provided from the back of the kerb.	The proposed design incorporates footpaths along the entire frontage of the site, as confirmed in Appendix 43.
	The proposed location of the gate entrance in relation to the student drop-off zone could result in vehicles stopping directly in front of the gate, leading to a backlog of cars that are unable to properly use the drop-off area. This will also	A detailed School Transport Plan will be prepared prior to operation, which will detail how the pick up and drop off area will operate and be managed and monitored. Refer to the Response to Submissions letter appended to this Report for further discussions (Appendix 43).

Key Issue	Submission	Project Response
	impact the operations of buses as they will struggle to reach the bus zone.	
	Consultation with impacted bus companies is to occur to ensure access through local streets can be achieved.	There is an existing public bus route that operates along Fontana Drive, however the proposal will facilitate the existing services through the introduction of the new bus stop. It is not considered that any further consultation is required.
	The DOE shall liaise with Council's Traffic team to provide appropriate parking restrictions around the school site and crossings. The DOE is liable to fund and arrange the installation of the parking restrictions subject to approval from the Local Traffic Committee. The DOE should approach council four months prior to the commencement of the school to allow Council sufficient time to prepare a report in support of the parking restrictions to the local traffic committee. The DOE may be required to undertake the consultation process with surrounding residents regarding the parking restrictions proposal.	An approval will be sought from the Local Traffic Committee under Section 138 of the Roads Act 1993 following approval of the activity, prior to construction. This has been included as a mitigation measure at Appendix 1.
	Any works proposed within the public road reserve will require approval from the relevant roads authority pursuant to the Roads Act. The applicant must comply with all requirements of the roads authority.	This has been included as a mitigation measure in the updated Mitigation Measures at Appendix 1.
	The design of the Driveways, parking modules, circulation roadways and ramps shall be designed in accordance with relevant AS/ NZS 2890.1, AS 2890.2 and AS/ NZS 2890.6.	This comment is noted and will be reviewed during the detailed design stage, as confirmed in the Response to Submissions letter provided at Appendix 43.
	The parking modules and aisle width shall comply with each respect user class as per table 1.1 and figure 2.2 of the AS/ NZS 2890.1. The aisle width shall be provided on the plans and at least provide the typical parking modules.	This comment is noted and will be reviewed during the detailed design stage, as confirmed in the Response to Submissions letter provided at Appendix 43.
Open Space	The school shall incorporate an active open space playing field within the school grounds and consider a redesign of the passive open space	The proposed scheme has been designed to provide sufficient open space provision to meet the needs of the school and preschool, while in accordance with the relevant regulations (Education and Care Services National Regulations (2011

Key Issue	Submission	Project Response
	lawn area so that it can be utilised in this manner or be adapted for the purpose of a formalised playing field to meet school demands.	SI 653). The design incorporates a sports court, large open turf playing areas, nature play areas and extensive landscaping. Notwithstanding this, there are ongoing discussions between the Department of Education and The Hills Shire Council to enter into a shared use agreement, to enable Council to use the school hall at agreed times, and the School to access the new playing fields constructed to the north of Pennant Way. As such, it is considered that the open space provision is sufficient to meet the future needs of the students.
	Any existing or proposed vegetation and landscaping surrounding the proposed development must not compromise sight distances and visibility at the proposed entrance and exit driveways (below 500mm above the footpath level).	This comment is noted and will be reviewed during the detailed design stage, as confirmed in the Response to Submissions letter at Appendix 43.
Flooding	The development must comply with the requirements of Council flood control DCP Part C section 6.	The Flood Impact Risk Assessment details the flood planning controls set out in Part C, Section 6 of the Hills Shire Council DCP and demonstrates how the site must comply with these provisions. As the school is defined as a sensitive use/facility, the Gables New Primary School and Preschool must be protected to the Probable Maximum Flood level in accordance with Part C, Section 6 of the DCP. Refer to Section 6.1 of the Flood Impact Risk Assessment at Appendix 9 for further details.
	Flood modelling to be submitted to Council's Waterways team for review and comments.	TTW originally contacted The Hills Shire Council in May 2024 to request the TUFLOW model for the site, based on Northrop Consulting Engineers updates for the Dam Break Assessment in 2019. Section 4.1 of the Flood Impact Risk Assessment sets out the modelling methodology used by Northrop in their assessment. Section 4.2 outlines all updates and refinements that were made to the model by TTW for the proposed activity. This can be provided to Council's Waterways team if required, subject to approval from Stockland. Refer to the Response to Submissions letter prepared by TTW for further discussions, along with the Flood Impact Risk Assessment provided at Appendix 9.
Stormwater	The development must provide stormwater management measures in accordance with Clause 2.11 Stormwater Management of Part D Section 17 of the 'Box Hill North' Precinct of The Hills Development Control Plan 2012.	Refer to the "Overall Bio Retention Basins Catchment 200031-LH-DAC01.51 Rev.3" prepared by Enspire Solutions, as included in Section 6.1 of the Stormwater Management Plan at Appendix 11.
	The capacity of the stormwater system into which	The Stormwater Consultant had not received survey data including detailed

Key Issue	Submission	Project Response
	stormwater from the development discharges into, must be checked/analysed. Please note that the check/analysis shall be carried out to the legal point of discharge to ensure that the street pits will not be surcharged during minor events up to the 10 years ARI storm event and up to the 20 years ARI storm event for sag pit.	drainage and utility information (Invert, size, cover etc) on Cataract Road and Pennant Way for the preparation of the Stormwater Management Plan. The consultant adopted the downstream pipe connection along Pennant Way adequately. A mitigation measure will be adopted to undertake a detailed survey of the road and review the stormwater design during the detailed design phase.
	The Water sensitive urban design elements must demonstrate a reduction in annual average pollution export loads from the development site in line with the following environmental targets: <ul style="list-style-type: none"> • 90% reduction in the annual average load of gross pollutants • 85% reduction in the annual average load of total suspended solids • 65% reduction in the annual average load of total phosphorous • 45% reduction in the annual average load of total nitrogen • All model parameters and data outputs are to be provided. 	The Water Sensitive Urban Design elements were designed in accordance with the Water Sensitive Urban Design Technical Guidelines for Western Sydney and Hills Shire Council – Design Guidelines Subdivision/Development. The WSUD elements have demonstrated a reduction in annual average pollution export loads from the development site as detailed in Section 7.4 of the Flood Impact Risk Assessment Report at Appendix 9 for further details.
Waste	The school will need to engage a private waste contractor to service the site.	The school will engage a private waste contractor, as noted at Section 6.4 of the Operational Waste Management Plan provided at Appendix 38.
	Onsite waste collection must be proposed.	Onsite waste collection has been provided as detailed in the Operational Waste Management Plan provided at Appendix 38.
	Vehicular access and loading facilities must be provided and designed in accordance with AS2890.2 for the standard 12.5m long Heavy Rigid Vehicle.	The Transport and Accessibility Impact Assessment demonstrates that vehicular access and loading facilities are provided and designed in accordance with AS standards for the 12.5m long Heavy Rigid Vehicle. Refer to Appendix 13 for the swept path analysis.
	Access for waste collection vehicles must not impede upon general traffic to, from, or within the site.	The Transport and Accessibility Impact Assessment has considered the operational impacts of the proposed activity, including vehicular movements from waste collection vehicles, and concludes that the impacts of the proposed activity are moderate and will not have significant adverse effects on the surrounding area.

Key Issue	Submission	Project Response
		Refer to Appendix 13 for further details.
	Waste collection vehicles must enter and exit the site in a forward direction.	Waste collection vehicles will enter and exit the site in a forward direction as noted in the Operational Waste Management Plan provided at Appendix 38.
	Waste storage area(s) must be provided onsite that are adequately sized to store the minimum number of bins required to service the site.	The waste storage areas have been provided on site and the anticipated number of bins have been determined based on the waste generation rates, as detailed in the Operational Waste Management Plan provided at Appendix 38.
	Applicable waste generation rates for calculating bins can be found in 'Table F3: Calculating commercial and industrial waste and recycling generation rates' found on page 95 within the NSW EPA Better Practice Guide for Resource Recovery in Residential Developments.	The Operational Waste Management Plan (Appendix 38), confirms the guidelines that informed the preparation of the document, including the NSW Better Practice Guide For Resource Recovery In Residential Developments 2019. The waste generation rates for calculating bins have therefore been developed on this basis. Refer to Appendix 38 for detailed calculations.
	Waste storage areas must ensure that bins are screened from view from neighbouring residential properties and public land.	Owing to the location of the waste storage areas being located within the site boundary between the built form and car parking provision, together with the extent of tree planting along the site boundaries, the waste storage areas will be adequately screened from surrounding views. This has also been confirmed in the Operational Waste Management Plan provided at Appendix 38.
Noise	The school is to incorporate acoustic considerations to minimise the impact of noise on neighbours. Consideration should be given to the public address system design and placement and direction of speakers.	The Noise and Vibration Impact Assessment prepared by Resonate assesses construction and operational noise impact of the proposed activity and sets out various acoustic considerations to minimise the impact of noise on surrounding residents, through mitigation measures detailed in Appendix 1, including the positioning and noise control of public address system, location and selection of mechanical plant and management of outdoor school activities.
Endeavour Energy		
Utilities	Please find attached a copy of Endeavour Energy's Standard Conditions for Development Applications and Planning Proposals, Version 10, January 2025 which provides some additional and updated information.	Endeavour Energy's Standard Conditions for Development Applications and Planning Proposals, Version 10, January 2025 are acknowledged and will be considered during detailed design.
NSW SES		
Stormwater	We recommend pursuing site design and stormwater management that reduces the impact of flooding and minimises any risk to the	A mitigation measure is provided to ensure that the detailed stormwater design seeks to reduce the impact of flooding and minimise risk to the community, as set out in Appendix 1. Further guidance for the proposed stormwater design is

Key Issue	Submission	Project Response
	community. We note the Concept Stormwater Management Report proposes reductions in flood levels can be achieved through these measures.	provided in the Flood Impact Risk Assessment included at Appendix 9.
Flood Impact	We note the site is affected by short duration flash flooding “with the school only cutoff from access roads for approximately 20-30 minutes in the critical PMF event”. Adjacent road sag points are inundated as frequently as the 20% Annual Exceedance Probability (AEP) event with the school campus itself affected by small areas of flooding around the building perimeters in events larger than the 1% AEP event reaching up to 1.5 meters in depth.	The flood consultant acknowledges that there is notable ponding of flows around the proposed buildings in both the 1% AEP and PMF events, which will be managed through the detailed stormwater design, to be developed prior to construction. Refer to the Flood Response to Submissions letter prepared by the flood consultant for further discussions (Appendix 41). A mitigation measure is provided to ensure that the detailed stormwater design seeks to reduce the risk of flooding, as set out in Appendix 1. Further guidance for the proposed stormwater design is provided in the Flood Impact Risk Assessment included at Appendix 9.
	We recommend considering the impacts of climate change. It is estimated that the actual probability of a 1 in 100 AEP for this catchment area is approximately a 1 in 58 AEP event for the current 2024 scenario. For the proposed development site, this could result in more frequent inundation and/or isolation than what is currently expected based on previous modelling.	As noted within the Response to Submissions letter (Appendix 41), the impacts of climate change have been considered within the updated Flood Impact Risk Assessment provided at Appendix 9. Notwithstanding, the PMF event is still shown to demonstrate the highest flood levels and extent to determine the FFLs of the buildings, as designed.
Flood Emergency Response	We support the strategy of closing the school as the primary response to flooding where possible and note that the buildings are proposed to be designed to be safe alternatives if there is insufficient warning time. Consideration should be given to the criteria identified in the NSW Shelter in Place Guideline for Flash flooding.	The Flood Emergency Response Plan provided at Appendix 10 restates the primary response to flooding being the closure of the school and preschool. However, in the case of flash flooding, the Flood Emergency Response Plan recommends the school is prepared for a shelter-in-place strategy, as evacuation in the critical duration PMF event would be more hazardous, in line with the NSW Shelter in Place Guidelines. The buildings have been designed above the PMF level to ensure buildings are safe to shelter in, from ground floor to the upper levels. The refuge space has been designed in accordance with the relevant size requirements, coupled with various communal spaces for additional refuge across the site. The Flood Emergency Response Plan and subsequent Response to Submissions letter prepared by the flood consultant (Appendix 10 and 41 respectively), set out the shelter in place strategy for the site in further detail.
	Principle 1 Any proposed Emergency Management strategy should be compatible with any existing community Emergency Management	The Flood Emergency Response Plan provided at Appendix 10 restates the primary response to flooding being the pre-emptive closure of the school and preschool, which is in accordance with The Hills Shire Flood Emergency Sub Plan

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	<p>strategy.</p> <p>Any proposed Emergency Management strategy for an area should be compatible with the evacuation strategies identified in the NSW State Flood Plan and The Hills Shire Flood Emergency Sub Plan, where evacuation is the preferred emergency management strategy for people impacted by flooding.</p>	<p>(2023). However, in the case of flash flooding, the Flood Emergency Response Plan recommends a shelter in place strategy, in accordance with the NSW Shelter in Place Guidelines. This is also discussed within the Response to Submissions letter prepared by the flood consultant and provided at Appendix 41.</p>
	<p>Principle 2 Decisions should be informed by understanding the full range of risks to the community.</p> <p>Decisions relating to future development should be risk-based and ensure Emergency Management risks to the community of the full range of floods are effectively understood and managed.</p> <p>Further, risk assessment should consider the full range of flooding, including events up to the Probable Maximum Flood (PMF) and not focus only on the 1% AEP flood. Climate change should also be considered.</p>	<p>The Flood Impact Risk Assessment (Appendix 9) sets out the full range of flooding events, including existing and post-development flood conditions for the 0.5% AEP, 1% AEP, 20% AEP and PMF events. The impacts of climate change have also been considered and the PMF event is shown to demonstrate the highest flood levels and extent to determine the FFLs of the buildings, as designed.</p>
	<p>It is noted that the site in its developed condition is affected by flash flooding at the sag point on Pennant Way as frequently as the 20% AEP flood event. During the 1% AEP and larger events the school itself is shown to have “pooling of floodwaters is evident along the perimeter of the buildings in the 1% AEP event due to the proposed cut along the perimeter of the proposed school buildings (Figure 22). Depths around the buildings generally range between 0.2 – 0.9m, peaking at around 1.05m at the western perimeter of the northwest building currently designated as administration space.” Flood hazard adjacent to the proposed buildings during this event reaches up to Hazard Level 4 (H4), this level of hazard is unsuitable for all people and vehicles, especially young children.</p>	<p>As noted in the Response to Submissions letter prepared by the flood consultant (Appendix 41), it is acknowledged that there is pooling of floodwaters surrounding the proposed buildings in both the 1% AEP and PMF events, primarily as a result of the proposed cut around the building perimeters. The stormwater design will be developed during the detailed design phase of the project, in accordance with the recommendations of the Flood Impact Risk Assessment (Appendix 9), and mitigation measure identified in Appendix 1.</p>

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	<p>During the PMF event flood conditions throughout the school grounds reach depths of up to 1.5 metres, with “Flood hazard in the PMF has increased from the 1% AEP event, with hazard ranging from H2-H5 along the building perimeters (Figure 27), reaching H6 at the northeastern building.” At this level of hazard all buildings are considered vulnerable to failure. During the PMF event roads to the east and west of the south also become inundated with Fontana Drive and Pennant Way reaching H5 which is unsafe for all vehicles. The PMF flood event modelled for the site is of short duration with “less than 10 minutes from the onset of the critical PMF storm until inundation of the adjoining roads for the proposed school site” and “cutoff from access roads for approximately 20-30 minutes in the critical PMF event”.</p>	
	<p>As noted in the FIRA the school campus itself contains some areas in which the flood hazard during the 1% AEP and larger events “rises to H2-H3 around the perimeter of the buildings, reaching H4 at the communal hall (Figure 24). It should be noted that this pooling is considered a site stormwater management issue that must be addressed as part of the site civil design as opposed to flooding”.</p> <p>The Concept Stormwater Management Report further notes “there is a low resolution of TTW’s flood models, hence, it is unable to pick-up small drainage systems on the flood models. To mitigate the issues, we suggest installing localized spoon drains along the boundary on Fontana Drive to mitigate overland flow during 1% AEP and PMF events.17” We support this recommendation along with pursuing any site design and stormwater</p>	<p>As noted in the Response to Submissions letter prepared by the flood consultant (Appendix 41), the stormwater design will be developed during the detailed design phase of the project, in accordance with the recommendations of the Flood Impact Risk Assessment (Appendix 9), and mitigation measure identified in Appendix 1.</p>

Key Issue	Submission	Project Response
	management that reduces the impact of flooding and minimises any risk to the community, in both these areas and across the wider school site. Any improvements that can be made to reduce flood risk will benefit the community.	
	<p>Principle 3 Development of the floodplain does not impact on the ability of the existing community to safely and effectively respond to a flood. The ability of the existing community to effectively respond (including self-evacuating) within the available timeframe on available infrastructure is to be maintained. It is not to be impacted on by the cumulative impact of new development. Risk assessment should have regard to flood warning and evacuation demand on existing and future access/egress routes. Consideration should also be given to the impacts of localised flooding on evacuation routes. Evacuation must not require people to drive or walk through flood water. Development strategies relying on an assumption that mass rescue may be possible where evacuation either fails or is not implemented are not acceptable to the NSW SES.</p>	<p>The Flood Emergency Response Plan provided at Appendix 10 restates the primary response to flooding being the pre-emptive closure of the school and preschool. However, in the case of flash flooding, the Flood Emergency Response Plan recommends a shelter in place strategy, as there would be insufficient time for evacuation and any routes would be more hazardous. The Response to Submissions letter provided at Appendix 41 confirms that the site will not be isolated for an extended period of time during a flash flood event, and can be self-sustaining. As such, the flood consultant advises that a mass rescue would not be necessary.</p>
	<p>Principle 4 Decisions on development within the floodplain does not increase risk to life from flooding. Managing flood risks requires careful consideration of development type, likely users, and their ability respond to minimise their risks. This includes consideration of:</p> <ul style="list-style-type: none"> Isolation – There is no known safe period of isolation in a flood, the longer the period of isolation the greater the risk to occupants who are isolated. Secondary risks – This includes fire and medical emergencies that can impact on the 	<p>The Response to Submissions letter prepared by the flood consultant (Appendix 41) which confirms that the Flood Emergency Response Plan provided at Appendix 10 considers the risks of isolation, secondary risks and human behaviours. A longer PMF event (6 hours) was considered to assess the longest period of potential isolation, which demonstrated that all roads remained trafficable for the whole duration, and floodwaters dissipated after 3 hours. The shelter in place strategy for a flash flood event considers alternative plans for evacuation in the event of a secondary emergency (i.e. medical or fire) or should site users not shelter in place, the first roads to become safe to use will be Cataract Road, Fontana Drive and Valetta Drive and will be used by emergency vehicles.</p>

Key Issue	Submission	Project Response
	<p>safety of people isolated by floodwater. The potential risk to occupants needs to be considered and managed in decision-making.</p> <ul style="list-style-type: none"> Consideration of human behaviour – The behaviour of individuals such as choosing not to remain isolated from their family or social network in a building on a floor above the PMF for an extended flood duration or attempting to return to a building during a flood, needs to be considered. 	
	<p>It is the preference of NSW SES that all facilities follow the application of sound land use planning and flood risk management. All new primary and secondary school facilities should be located in areas of the floodplain that can be readily evacuated within the available time and resources, and not at significant flood risk. Assessment should be supported by an evacuation capability assessment, where identified by the consent authority or NSW SES. Additionally all new childcare facilities should be located in areas of the floodplain that are lower risk and can be readily evacuated within the available time and with the available resources.</p>	<p>It is confirmed within the Flood Impact Risk Assessment (Appendix 9) and the Response to Submissions letter (Appendix 41) provided by the flood consultant, that the site is not impacted by mainstream flooding and lies outside of the Hawkesbury-Nepean River Valley PMF extent. In the case of flash flooding, the Flood Emergency Response Plan recommends a shelter in place strategy owing to the short nature of the event. This has been detailed within the Flood Emergency Response Plan provided at Appendix 10.</p>
	<p>Current evidence suggests that flood events will become more frequent due to climate change. A Climate Change Calculator has been developed to address the updated ARR climate change guidelines (Wasko et al, 2024), recommending the adjustment of the BoM 2016 IFDs to account for the warming that has occurred since the mid-point of the data used for their development (1961-1990). This results in a significant increase in existing conditions flood levels.¹⁸</p>	<p>The impacts of climate change have been assessed in the Flood Impact Risk Assessment (Appendix 9) through a model that equates to a 19.7% increase in rainfall intensity. The PMF event has been assessed to understand the highest flood levels and depths, which has been used to inform the built design and response strategies.</p>
	<p>The change in flood probabilities with climate change for this catchment area results in the new</p>	<p>The Flood Emergency Response Plan provided at Appendix 10 acknowledges the need to make all occupants and visitors of the site to be aware of the flood risk and</p>

Key Issue	Submission	Project Response
	probability of the 1 in 100 AEP to be approximately 1 in 58 AEP event for the current 2024 scenario, becoming even more frequent in the future. For the proposed development site, this could result in more frequent inundation and/or isolation than what is currently expected based on previous modelling.	flood procedures adopted. Visitors will be informed via SMS should there be a flood warning and if required, will be directed to the communal areas of the school for shelter in place. Refer to Appendix 10 and the Response to Submissions letter provided at Appendix 41 for further information.
	Principle 6 Recognise the need for effective flood warning and associated limitations. An effective flood warning strategy with clear and concise messaging understood by the community is key to providing the community an opportunity to respond to a flood threat in an appropriate and timely manner. As the site is affected by flash flooding with “less than 10 minutes from the onset of the critical PMF storm until inundation of the adjoining roads for the proposed school site” little to no warning time is likely to be available.	The Flood Emergency Response Plan provided at Appendix 10 acknowledges the various sources of flood warnings and notifications that will be adopted and recommended, including the Site Manager to check the Bureau of Meteorology and the NSW SES Australia Warning System. All site users should be made aware of the various warning apps, and a PA system will be implemented to inform occupants on site.
	Principle 7 Ongoing community awareness of flooding is critical to assist effective emergency response. The flood risk at the site and actions taken to reduce risk to life should be communicated to all site users (includes increasing risk awareness, community connections, preparedness actions, appropriate signage and emergency drills) during and after the construction phase. However, it is important to note that the NSW SES is opposed to the imposition of development consent conditions requiring private flood evacuation plans rather than the application of sound land use planning and flood risk management. Development in a floodplain will increase the need for NSW SES to undertake continuous community awareness, preparedness, and response requirements. Residents and users of the proposed development should be made aware of	The Flood Emergency Response Plan provided at Appendix 10 acknowledges the various sources of flood warnings and notifications that will be adopted and recommended, including the Site Manager to check the Bureau of Meteorology and the NSW SES Australia Warning System. All site users should be made aware of the various warning apps, and a PA system will be implemented to inform occupants on site. The Flood Emergency Response Plan also acknowledges the need to make all occupants and visitors of the site to be aware of the flood risk and flood procedures adopted. Visitors will be informed via SMS should there be a flood warning and if required, will be directed to the communal areas of the school for shelter in place. Refer to Appendix 10 and the Response to Submissions letter provided at Appendix 41 for further information.

Key Issue	Submission	Project Response
	their flood risk, the Hazards Near Me app (a tool to receive flood warnings as part of the Australian Warning System) and the NSW SES website which contains comprehensive information for the general community about what to do before, during and after floods as well as in-language resources and HazardWatch (NSW SES interactive information and warnings site).	
RFS		
Bushfire	<p>Prescriptive compliance with Specification 43 (sections S43C3, S43C4, S43C5, S43C6, S43C7, S43C8, S43C9, S43C12 and S43C13) is specified. Performance-based solutions proposed in lieu of compliance with the prescriptive provisions of Specification 43 (sections S43C3, S43C4, S43C5, S43C6, S43C7, S43C8, S43C9, S43C12 and S43C13 of NCC 2022) need to be assessed in accordance with the NCC 2022 by the Certifying Authority.</p> <p>Compliance with Specification 43 for S43C14 Vehicular access of NCC 2022 is modified by the RFS in response to the provision of a performance based solution provided through the document Bushfire Protection Assessment The Gables New Primary School School Infrastructure NSW (SINSW) on behalf of the NSW Department of Education (DoE), prepared by EcoLogical Australia, Ref: 23HUS4784, V2, dated 21 November 2024, which satisfied exclusion be granted from the requirements of S43C14 Vehicular access of NCC 2022, in accordance with Table 3 of Appendix B of Addendum 2022, of Planning for Bush Fire Protection 2019.</p>	As noted within the Response to Submissions letter prepared by Eco Logical Australia (Appendix 44), this condition is accepted and any performance-based solutions will be assessed in accordance with the NCC 2022 by the Certifying Authority.
	Emergency and Evacuation Planning Assessment The intent of measures is to provide suitable emergency and evacuation arrangements for	This condition has been accepted and included as a mitigation measure at Appendix 1.

Key Issue	Submission	Project Response
	<p>occupants of the development</p> <p>1. In recognition of the isolated location of the proposed development a Bush Fire Emergency Management and Evacuation Plan (BEEP) must be prepared in accordance with Table 6.8d of Planning for Bush Fire Protection 2019 and be consistent with the following:</p> <ul style="list-style-type: none"> • The NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan; • include planning for the early relocation of occupants; • detailed plans of all emergency assembly areas, including on-site and off-site arrangements as stated in AS 3745 'Planning for emergencies in facilities', are clearly displayed. <p>A copy of the Bush Fire Emergency Management and Evacuation Plan should be provided to the Local Emergency Management Committee for its information prior to the occupation of the development.</p>	
	<p>Asset Protection Zones</p> <p>Intent of measures is to provide suitable dwelling design, construction and sufficient space to ensure that radiant heat levels do not exceed critical limits for firefighters and other emergency services personnel undertaking operations, including supporting or evacuating occupants 2. At the commencement of building works and in perpetuity, the entire property must be managed as an asset protection zone in accordance with the requirements of Appendix 4 of Planning for Bush Fire Protection 2019.</p>	<p>This condition has been accepted and included as a mitigation measure at Appendix 1.</p>
	<p>Construction Standards</p> <p>The intent of SFPP measures is to provide suitable dwelling design, construction and sufficient space</p>	<p>This condition has been accepted and included as a mitigation measure at Appendix 1, however as recommended by Eco Logical Australia in their Response to Submissions Letter (Appendix 44), the condition has been amended to refer to</p>

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	to ensure that radiant heat levels do not exceed critical limits for firefighters and other emergency services personnel undertaking operations, including supporting or evacuating occupants 3. New construction must comply with Sections 3 and 6 (BAL 19) Australian Standard AS3959-2018 Construction of buildings in bush fire-prone areas or NASH Standard (1.7.14 updated) National Standard Steel Framed Construction in Bushfire Areas – 2014 as appropriate and Section 7.5 of Planning for Bush Fire Protection 2019.	the current NASH Standard for Steel Framed Construction in Bushfire Areas 2021 (NS300) version.
	4. Fences and gates must comply with Section 7.6 of Planning for Bush Fire Protection 2019. New fences and gates are to be made of either hardwood or non-combustible material. Where a fence or gate is constructed within 6m of a dwelling or in areas of BAL-29 or greater, they must be made of non-combustible material only.	The mitigation measure is accepted and provided in the consolidation Mitigation Measures Appendix (Appendix 1), however as recommended by Eco Logical Australia in their Response to Submissions Letter (Appendix 44), the condition wording has been revised to state: 'Where a fence or gate is constructed within 6m of a school building or in areas of BAL-29 or greater, they must be made of non-combustible material only.'
	Access - Internal Roads The intent of measures is to provide safe operational access for emergency services personnel in suppressing a bush fire while residents are accessing or egressing an area 5. The performance criteria for Special Fire Protection Purposes Class 9 access have been demonstrated and are achieved through the development complying with the document PROPOSED SITE PLAN - SINSW Gables New Primary School - Lot 301 - Fontana Drive, The Gables (Box Hill North), prepared by Architectus, Project No. 210463.01, Rev A.06, dated 3 February 2024.	Noted.
	Water and Utility Services The intent of measure is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to	This condition has been accepted and included as a mitigation measure at Appendix 1.

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	<p>locate gas and electricity so as not to contribute to the risk of fire to a building.</p> <p>6. The provision of water, electricity and gas must comply with the following in accordance with Table 6.8c of Planning for Bush Fire Protection 2019:</p> <ul style="list-style-type: none"> • reticulated water is to be provided to the development where available; • fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard AS 2419; • hydrants are and not located within any road carriageway; • reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads; • fire hydrant flows and pressures comply with the relevant clauses of AS 2419; • all above-ground water service pipes are metal, including and up to any taps; • where practicable, electrical transmission lines are underground; • where overhead, electrical transmission lines are proposed as follows: <ul style="list-style-type: none"> ○ lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and <ul style="list-style-type: none"> ○ no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines. • reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used; • reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 <p>- The storage and handling of LP Gas, the</p>	

Key Issue	Submission	Project Response
	<p>requirements of relevant authorities, and metal piping is used;</p> <ul style="list-style-type: none"> • all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side; • connections to and from gas cylinders are metal; polymer-sheathed flexible gas supply lines are not used; and • above-ground gas service pipes are metal, including and up to any outlets. 	
	<p>Landscaping Assessment</p> <p>The intent of measures is to provide suitable dwelling design, construction and sufficient space to ensure that radiant heat levels do not exceed critical limits for firefighters and other emergency services personnel undertaking operations, including supporting or evacuating occupants</p> <p>7. Landscaping within the required asset protection zone shall comply with Appendix 4 of Planning for Bush Fire Protection 2019. In this regard, the following principles are to be incorporated:</p> <ul style="list-style-type: none"> • A minimum 1 metre wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building; • Planting is limited in the immediate vicinity of the building; • Planting does not provide a continuous canopy to the building (i.e. trees or shrubs are isolated or located in small clusters); • Landscape species are chosen to ensure tree canopy cover is less than 15% (IPA), and less than 30% (OPA) at maturity and trees do not touch or overhang buildings; • Avoid species with rough fibrous bark, or which 	<p>This condition has been accepted and included as a mitigation measure at Appendix 1.</p>

Key Issue	Submission	Project Response
	<p>retain/shed bark in long strips or retain dead material in their canopies;</p> <ul style="list-style-type: none"> • Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown; • Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter); • Avoid climbing species to walls and pergolas; • Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building; • Locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building; and • Low flammability vegetation species are used. 	
Public Submission		
Open Space	<p>The planned sports facility is not sufficient to meet the needs of students who require ample outdoor space for recreational and school-level sports activities. To ensure a well-rounded physical education program, the school should include a standard outdoor soccer field and a multi-purpose athletics track, similar to Bella Vista Public School, which provides high-quality outdoor sports spaces for students. Other sports fields in Gables are not for soccer.</p>	<p>The proposed scheme has been designed to provide sufficient open space provision to meet the needs of the school and preschool, while in accordance with the relevant regulations (Education and Care Services National Regulations (2011 SI 653)). The design incorporates a sports court, large open turf playing areas, nature play areas and extensive landscaping. Notwithstanding this, there are ongoing discussions between the Department of Education and The Hills Shire Council to enter into a shared use agreement, to enable Council to use the school hall at agreed times, and the School to access the new playing fields constructed to the north of Pennant Way. As such, it is considered that the open space provision is sufficient to meet the future needs of the students.</p>
Parking	<p>Additionally, a dedicated support unit drop-off area is essential to ensure safe and efficient access for students with special needs. These improvements will promote inclusivity, encourage active participation in sports, and create a more engaging and supportive school environment.</p>	<p>The proposed design incorporates two (2) new 70 metre Kiss & Drop zones along the southern side of Pennant Way and eastern side of Fontana Drive, which have been conveniently positioned in close proximity to the Support Learning Units within the Gables New Primary School, and connected by accessible pathways. Notwithstanding this, during detailed design, the parking strategy will be reviewed and potential for a dedicated drop-off zone within the existing car park to support the Support Learning Units will be explored.</p>

7. Environmental Impact Assessment

7.1 Traffic, Access and Parking

A Transport and Accessibility Impact Assessment is included at Appendix 13. The report outlines the existing surrounding road network arrangements and conditions and provides an assessment of the traffic and parking impacts associated with the proposal.

7.1.1 Operational Transport Impacts

The transport consultant has undertaken a detailed review of operational traffic impacts utilising a conservative approach to assess the largest travel demand for both students and staff of the primary school. For the preschool, RMS traffic generation rates for a 'Long-day childcare centre' have been adopted.

Combining the proposed primary school trip generation and preschool trip generation will result in the following proposed vehicles during the AM and school PM peak period:

- 7:15 to 8:15 AM Peak: 950 trips (509 in, 441 out)
- 2:00 to 3:00 PM Peak: 920 trips (426 in, 494 out)

Intersection Performance

In discussion with Council and TfNSW, the modelling included the assessment of two intersections, being Fontana Drive / Red Gables Road and Fontana Drive / Cataract Road. A SIDRA assessment was carried out that represents the worst-case scenario for all intersections including the existing scenario prior to the proposal and 2027 inclusive of the new primary school, preschool and background growth (including recently approved developments in the area).

The modelling confirms the proposed scheme can be accommodated by the existing road network with spare capacity, with no external improvements required. The traffic impacts of the proposed activity are therefore considered acceptable.

Additional modelling was carried out to understand if the Gables Town Centre Masterplan proposal, to upgrade the existing Red Gables Road / Fontana Drive roundabout to a signalised intersection in the future', would remain possible. The assessment confirms that there is sufficient capacity to accommodate the school with spare capacity should the intersection be signalised in the future, with no additional improvements required.

Set down and pick up operation

To adequately meet the anticipated future set down/pick up demand, it is proposed to provide a set down/pick up zone on the eastern side of Fontana Drive and southern side of Pennant Way (accommodating 12 vehicles respectively). The split zones assist accommodating northern, southern and eastern vehicle approaches.

A queuing analysis was carried out that confirms the forecast demand for the primary school can be accommodated or processed in approximately 16 minutes. To ensure the proposed pick up and set down zone operates effectively, an operational Preliminary School Transport Plan has been

prepared that sets out initiatives that will be implemented to ensure reasonable operation (Appendix 14).

Operational Parking

The Department has set a travel demand mode based on a review of a benchmark school (Ironbark Ridge Public School), plus anticipated travel habits based on the proposed school catchment area, proposed student locations based on the student location analysis and the projects transport provision. To avoid generating high levels of additional vehicular traffic through induced demand, transport provisions and capacity are specifically targeted and are supported with infrastructure and services to address all transport options. The parking provision was also informed by consultation with a number of stakeholders, including The Hills Shire Council as part of the Transport Working Group meetings.

The proposed primary school on-site car park has a capacity of 35 spaces (including 1 accessible parking space) and is designed to accommodate 70% of staff at opening year and 50% of staff once the school reaches full capacity.

The car park will adequately serve all staff in opening year, with allowance for travel behaviours to change over time and reduce the car driver mode share before reaching full capacity. In line with SI policy, no car parking will be provided for students or visitors to the site.

The preschool on-site car park provides a total of 6 car spaces for staff (including 1 accessible parking space), which equates to 100% provision for staff in accordance with The Hills DCP.

Car parking is to be provided in accordance with AS2890.1:2004.

The project is also delivering a range of transport infrastructure works and public domain improvements, including a bus zone, upgraded pedestrian walkways, and bicycle parking, to promote the use of active and sustainable modes of transportation.

A Preliminary School Transport Plan (Appendix 14) has been prepared with the following aims:

- Encourage students to walk or cycle where possible, using the highly walkable local catchment and improved infrastructure being provided by this project such as raised crossings and shared path facilities.
- Encourage students to catch public transport where possible, and safely manage the new bus zone facilities outside the school site.
- Ensure good operation of the new Kiss & Drop zones on Fontana Drive and Pennant Way.
- Reduce the number of staff travelling by car to site and, when staff do choose to drive, reduce the impact of staff parking on the amenity of the local area.

The implementation of a School Transport Plan and the provision of active and public transport infrastructure such as end-of-trip facilities for staff, will assist in shifting staff and student travel behaviour as the school population grows over time (such as reducing staff car driver mode split). This shift to a lower car driver mode split is consistent with the projects overall sustainable transport goals. This strategy is implemented for a number of reasons including:

- provision of acceptable and sufficient quantities of on-site play space;
- reductions in hardstand space to avoid urban heat island effects;

- limiting vehicle movements to reduce congestion; and
- reducing the carbon emissions of staff travel to and from the site.

This shift over time is expected to coincide with gradual growth of the school population over time, regardless of whether the proposal is physically constructed in multiple stages or a single stage.

The parking ratio for staff is 1 space per 2 staff members. The adequacy of the parking ratio has been considered in the context of the school locality, access to public transport and project specific sustainable transport measures. The following points are raised:

- The project is delivering a range of transport infrastructure works and public domain improvements, including a bus zone, upgraded pedestrian walkways, and bicycle parking, to promote the use of active and sustainable modes of transportation
- The preliminary School Transport Plan (provided at Appendix 14) seeks to set out ways in which the school will promote active modes of transport to ultimately alleviate traffic impacts upon the surrounding road network, which will be developed further prior to operation, as detailed in the mitigation measures provided at Appendix 1.
- The school is also serviced by a regular bus route direct (16-minute journey), to Rouse Hill Metro station which provides fast and frequent rail connections to broader metropolitan Sydney. This supports the overall strategy to seek a higher mode shift for staff, further supported by the broader strategy including local staff recruitment and implementation of a site-specific School Transport Plan during operations.
- The Transport and Accessibility Impact Assessment (Appendix 13) further justifies the parking provision on site and confirms that the provision is appropriate with consideration of changing travel behaviours to a lower car driver mode split, which is expected to occur over time.

To address concerns on the suitability of the parking rate by Council, a mitigation measures is proposed to require a review of the staff car park capacity and staff travel behaviours within 12 months of the school operating at full capacity. Should the review find that additional parking is appropriate to manage staff parking demand, consideration of increasing the at-grade staff car park via exempt development under Schedule 5 of State Environmental Planning Policy (Transport and Infrastructure) 2021 is required.

Overall, the transport provisions of this project across all travel modes have been selected and developed in order to provide a sustainable, safe, and efficient site. These provisions include physical infrastructure works on and off-site, along with management measures to be implemented during operation of the school.

With implementation of the proposed transport strategy, the staff car park supply and operational transport impacts are considered to appropriately manage operational transport impacts and provide appropriate outcomes for the site.

Bicycle Parking

The Hills DCP requires approximately 60 student bicycle parking spaces and nil staff bicycle parking spaces. The proposed site will provide a total of 106 bicycle parking spaces, comprising 100 student bicycle spaces and 6 staff bicycle spaces.

It is expected that there are approximately 100 students or equivalent to 10% of the school capacity that will live 1.2 to 1.6km to the school. This indicates that approximately 10% of students (or, approximately 100 students) would likely cycle to school. As the intention is to promote more

sustainable travel to the school, the project has considered 10% bicycle parking for both staff and students to be suitable. The proposed number of bicycle parking spaces for students is adequate to support the expected demand.

End of Trip facilities in accordance with Green Star Building Guidelines will be provided with adequate facilities to support the expected demand and encourages an increase in cycling mode share into the future.

Pedestrian Safety

To ensure a safer pedestrian environment, four (4) new wombat crossings and three (3) new pedestrian refuges, changes to signage and line marking along Pennant Way and Fontana Drive and footpath widening along the southern side of Pennant Way and eastern side of Fontana Drive is proposed.

The forecast pedestrian demands at wombat crossings and pedestrian refuge crossings are at least 50 pedestrians per peak hour (not including accompanying parents, cyclists, or students getting dropped off outside the designated pick up and drop off areas). This would also exceed the TfNSW warrant requirements of 30 pedestrians per hour, however it is noted the relevant road Authority is Hills Shire Council. Relevant approvals under Section 138 of the Roads Act 1993 are to be obtained prior to the commencement of works.

Loading Facilities

An on-site shared loading area for both the primary school and preschool is provided. The loading area will accommodate a total of one (1) service vehicle up to and including a 12.5 metre HRV, including provisions for the swept paths of these vehicles. All vehicles will enter and exit the site in a forward direction. Swept path analysis for the loading dock and service vehicle area is provided at Appendix 13.

Mitigation Measures

- **General** - Prior to the commencement of any construction work within the road reserve, approval under Section 138 of the Roads Act 1993 is to be obtained from the relevant road authority.
- **Operation** - A School Transport Plan is to be prepared and implemented, which may include measures such as:
 - Regular communication and reminders to the school community
 - Regular monitoring of school operations and traffic conditions around the site. For example, if certain points along the road network are becoming congested, the school can encourage parents to use alternative approach routes and/or Kiss & Drop zones to spread vehicular traffic (refer to Section 9 for discussion of multiple Kiss & Drop zones)
 - Regular data collection and monitoring of transport strategy progress
 - Publishing a Travel Access Guide
 - Seeking a Travel Coordinator for the school (subject to availability); and
 - Maintaining a governance framework between the Department, Council, and TfNSW.

- Seeking additional bus services to the site, through coordination of enrolment and depersonalised location data with Transport for NSW on an ongoing basis.
- **Operation** - The School Transport Plan will be developed in line with the Flood Emergency Response Plan (rev C, dated 14/04/2025) to increase awareness and preparedness of the proposed flood evacuation measures.
- **Operation** - a review of the staff car park capacity and staff travel behaviours is to be undertaken within 12 months of the school operating at full capacity. Should the review find that additional parking is appropriate to manage staff parking demand, consideration of increasing the at-grade staff car park via exempt development under Schedule 5 of State Environmental Planning Policy (Transport and Infrastructure) 2021 is required.

7.2 Construction Transport Impacts

As the school is a greenfield construction site, disruption to the local community is anticipated to be minor. Notwithstanding, a preliminary Construction Traffic Management Plan has been prepared by the transport consultant (Appendix 15) to assess the impacts during construction.

Construction vehicles will access the site via Old Windsor Road and Boundary Road / Cataract Road. The routes shown are to be utilised by all construction vehicles travelling to and from the site and represent the shortest route between the local and regional road network which will minimise the impacts of the construction process. Loading and unloading activities will occur within the site at the nominated vehicle zones, or within any approved Works Zone.

Estimated heavy vehicle construction traffic volume for the worst case is 20 trucks per day, which is equivalent to approximately 3 trucks per hour. As heavy vehicles would generally arrive outside of AM and PM peaks, there is no impact on the peak period traffic volume.

Light vehicle traffic generation is anticipated to include 60-100 vehicles under the worst case, generated by the construction workers. The peak construction traffic periods will typically arrive and depart at 6:30 – 7:00am and 6:00 – 6:30pm respectively each day. Therefore, the peak construction traffic will not overlap with the typical peak commuter traffic and thus, the construction traffic will have a minimal impact on the local network.

Construction Parking

On-site car parks are to be made available to workers as soon as practical. Additional areas such as the staff car park, which are anticipated to be built at early phases of the project, are to be made available for workers car parking if possible.

A Construction Worker Transport Strategy is required to encourage alternate transport modes, and reductions in car usage by construction workers.

Given the greenfield nature of the locality, there is expected to be sufficient capacity on the local street network to accommodate the construction vehicle movements. Accordingly, the impact of construction traffic on local streets is expected to be adequately mitigated.

A Construction Environmental Management Plan will be required prior to construction commencing on the site. Additional mitigation measures are proposed to manage impacts on the existing network and are provided at Appendix 1.

Mitigation Measures

- **Construction** – Prior to commencement of construction, a detailed Construction Environmental Management Plan is to be prepared to manage construction traffic impacts.
- **Construction** - A Construction Worker Transport Strategy is required to encourage alternate transport modes, and reductions in car usage by construction workers.

7.3 Noise and Vibration

A Noise and Vibration Impact Assessment (NVIA) has been prepared by an acoustic consultant and is included at Appendix 31. The report assesses the noise and vibration impacts during the construction and operational stages of the project. A summary of the assessment and proposed mitigation measures are described below.

7.3.1 Identification of Sensitive Receivers

Noise emissions were assessed for the key surrounding sensitive receivers, being the future Aspect Hills Shire School to the south, the future recreational park to the north, future residential development to the north west and the surrounding existing residential development to the east and west of the site. The identified nearby sensitive receivers are shown in Figure 17 below.

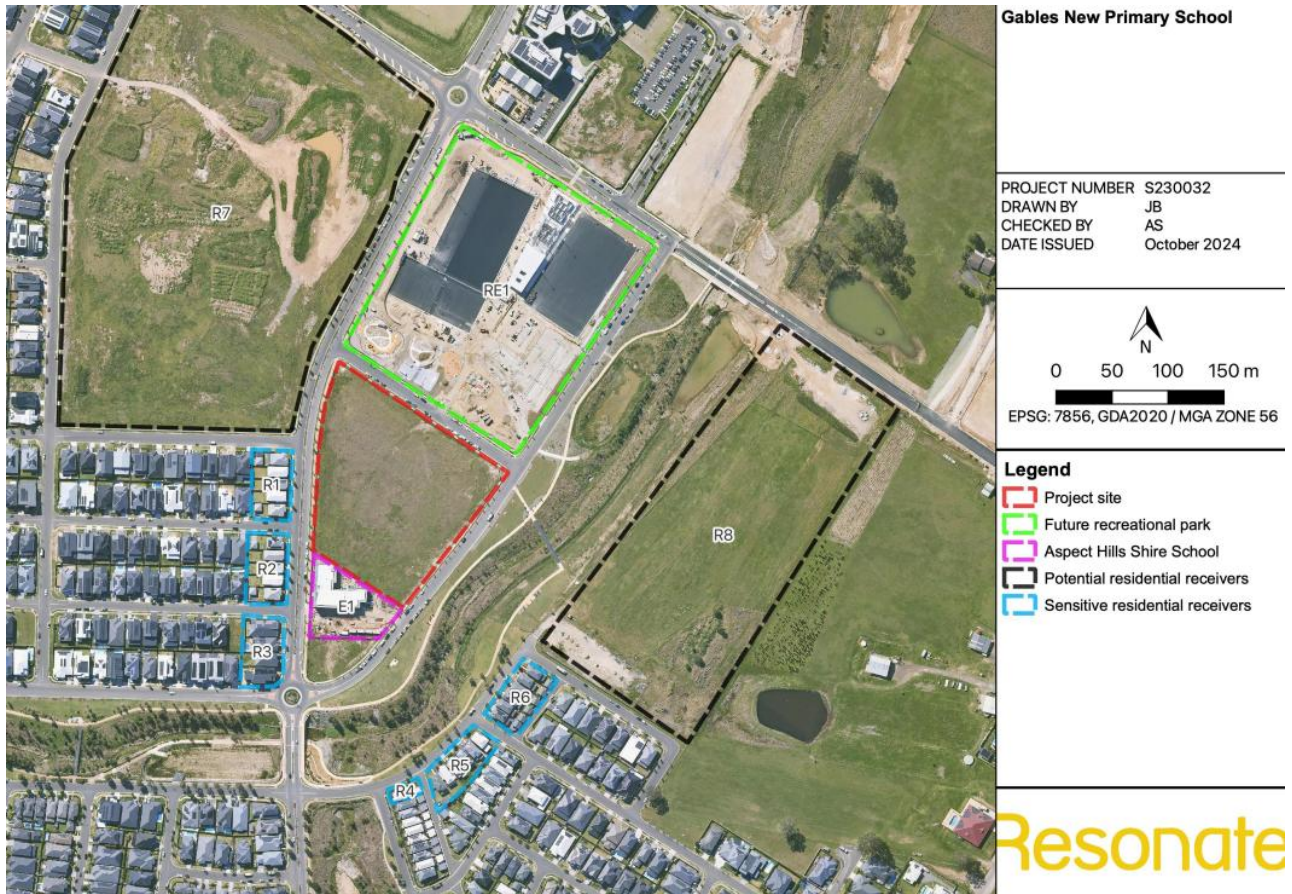


Figure 17 Sensitive Receivers Map

Source: Resonate

7.3.2 Relevant Noise Criteria

Utilising unattended background noise measurements undertaken between 24 July 2024 and 7 August 2024 and attended noise measurements in the same location, the acoustic consultant formulated the proposal's construction noise criteria (Noise Management Levels) and operational noise criteria (Project Noise Trigger Level).

Table 16 Noise Management Levels

Receiver	Period	Construction Noise Management Levels (dB(A)Leq(15min))		Project Noise Trigger Levels (dB(A)Leq(15min))
		Standard Hours	Out of Hours	
Residential	Day	50	45	Intrusiveness - 45 Project Amenity – 53
	Evening		41	Intrusiveness - 41 Project Amenity - 43
	Night		37	Intrusiveness - 37 Project Amenity - 38

Receiver	Period	Construction Noise Management Levels (dB(A)Leq(15min))		Project Noise Trigger Levels (dB(A)Leq(15min))
Passive Recreational	Day	60	60	Project Amenity - 48
	Evening		60	
	Night		60	
Educational	Day	55	55	Project Amenity - 43
	Evening		55	
	Night		55	

7.3.3 Construction Noise

Construction Hours

The recommended standard hours for construction, as proposed in the Interim Construction Noise Guideline (ICNG), are:

- Monday to Friday 7:00am to 6:00pm.
- Saturday 8:00am to 1:00pm.
- No work on Sundays and Public Holidays.

All construction work will be undertaken during the standard construction hours.

Construction Noise Impacts

The NVIA predicts that in a worst-case scenario, construction noise is predicted to exceed noise affected levels during standard hours for all identified receivers during all stages of construction, while the final stage of construction, being the internal works and fit out of the buildings will comply with the NML for the surrounding sensitive receivers.

The exceedance of the noise levels is not unusual given the heavy plant and equipment that must be used, such as excavators and hammers, and the proximity to sensitive receivers (the closest being 3m from the site). Construction works are temporary in nature and any potential noise impact on the community and the surrounding environment will not be permanent or continuous.

Where the predicted noise level is predicted to exceed the relevant requirements, all feasible and reasonable work practices would be applied. This will ensure that any adverse noise impacts to surrounding receivers are minimised. Mitigation measures are provided at Appendix 1 and include the preparation of a Construction Noise and Vibration Management Plan, which will require further noise monitoring along the northern boundary of the site to the immediate north and detail an approval process for undertaking out of standard construction hours work.

Construction Vibration Impacts

Based on the scope of works and typical equipment required, it is anticipated that vibration undertaken during construction will be perceivable by humans. Vibration intensive plant including the Vibratory Roller, Hydraulic Hammer and Vibratory Pile Driver, require specific minimum working distances to nearby receivers to address the risk of cosmetic damage and encourage human comfort. It is important to note that the minimum distances are indicative are likely to vary dependent upon the item of plant to be used.

Owing to the 3m distance between the site and the future Aspect Hills Shire School immediately adjacent to the south of the site, it is encouraged that the safe working distances are maintained and the use of larger, vibration intensive plant is avoided where possible.

As a result, a comprehensive Construction Noise and Vibration Management Plan (CNVMP) will be prepared by the engaged Contractor. The CNVMP will consider proposed plant, equipment and construction methodology, prior to the commencement of the project.

7.3.4 Operational Noise

The acoustic consultant has determined the potential operational noise impacts from various sources of the activity, including the standard operations during the standard school hours, the OOSH outdoor operations, the OOSH indoor operations, the use of the Public Address (PA) system, movements associated with the car park facilities, and mechanical plant. Overall, it has been determined that the impact of the operational noise impacts is able to satisfy the established criteria and can be mitigated through the successful implementation of the recommendations in Appendix 1.

Standard Hours Operations

The Noise and Vibration Assessment sets out the predicted noise levels from all operations of the project, with regard to all nearby noise sensitive receivers. The report concludes that the compliance can be met with the relevant noise criteria for all surrounding sensitive receivers when outdoor activities are restricted to no more than 4 hours per day, during the standard school hours. Similarly, the outdoor activities are expected to comply with the relevant noise criteria with respect to the passive recreational facility to the north, but is anticipated to exceed the relevant noise criteria by 1dB for the educational facility envisaged approximately 3m from the southern boundary of the site. This minor exceedance is considered acceptable due to the relative short nature of play time, noting that children are generally only outside during recess and lunch for approximately 1.5hours of the day.

Notwithstanding, the school will prepare a detailed Operational Management Plan to minimise any adverse impacts related to noise.

OOSH Operations

Both the indoor and outdoor operations of the OOSH, which will operate outside of the standard school hours, have been assessed by the acoustic consultant. Noise levels during both scenarios are predicted to achieve the relevant criteria, for all surrounding noise sensitive receivers.

Notwithstanding, any indoor activities undertaken within the evening should be controlled by closing all external doors and windows.

Public Address System / School Bell

The acoustic consultant has assumed the speaker locations for the PA / school bell system, as indicated in Figure 18 below. An assessment of the impacts of the PA / school bell system will be undertaken during the detailed design stage of the proposal, however it is noted that the sound power level of each speaker should not be more than 95 dB(A) to avoid impacts to the nearby noise sensitive receivers. Any announcement or school bell should not exceed a 15-minute period. Compliance with the recommendations of this Noise and Vibration Assessment is recommended to minimise any adverse noise impacts upon the surrounding noise sensitive receivers.



Figure 18 Assumed speaker locations and directionality

Source: Resonate

Car Parking

The operational use of both car parking facilities within the site is anticipated to comply with the relevant noise criteria during both the day and evening, for all identified noise sensitive receivers.

Mechanical Plant

The mechanical plant and equipment associated with the operation of the activity is to be controlled to ensure external noise emissions are not intrusive and do not impact on the amenity of the surrounding sensitive receivers.

As is typical for this stage of the design development, final plant selections have not been made, and therefore a detailed assessment has not been carried out. Notwithstanding, an assessment will be undertaken once the detailed design of the plant has been completed. A preliminary review of the plant located on the ground level and roof of the school, finds that it is able to comply with relevant controls, with a number of design strategies incorporated to reduce acoustic impact where appropriate.

Road Traffic

A review of potential external noise intrusion identified that traffic volumes on the nearby road network, particularly Fontana Drive to the west of the site, are below the threshold for assessment. Hence noise levels are expected to comply with the internal design sound levels.

Mitigation Measures

A complete set of mitigation measures relating to Noise and Vibration impacts from construction and operation for the activity is located at Appendix 1, with a number of key measures highlighted below:

- **Construction** – A Construction Noise and Vibration Management Plan will be prepared prior to commencement of major construction works.
- **Construction** - Unattended noise monitoring will be undertaken along the northern boundary of the Aspect Hills Shire School (i.e. boundary of the play area and/or classroom) during the construction works associated with the preschool and new southern car park due to their close proximity.
- **Construction** - Opportunities for respite periods for works associated with the construction of the preschool and new southern carpark will be explored with the Aspect Hills Shire School should the works adjacent be found to be impacting student use of the outdoor areas or classrooms.
- **Operation** - Noise from outdoor school activities will limit the use of the outdoor play area to a total of 4 hours per day.
- **Design/Operation** - Noise from OOSH and OSHC indoor events at the school hall will need acoustically rated external door and glazing elements.
- **Operation** - Operationally the school hall should not be used in the night time period 10pm - 7am.
- **Design/Operation** - Minimise noise spill and impact to nearby noise sensitive receivers through speaker position/selection, the use of a limiter and controlling duration of bells and announcements.
- **Operation** – An Operational Management Plan shall be prepared prior to occupation for the school, OOSH and preschool.

Following implementation of the noise control measures, it is concluded that the proposal is acceptable with regard to acoustic matters.

7.4 Hydrology, Flooding and Water Quality

7.4.1 Flooding

An assessment of the flood impacts on site has been undertaken by a flood consultant and is provided at Appendix 9. The site is located adjacent to the Cataract Creek watercourse, which is within 40 meters of the site's eastern boundary.

Flood Impact

Based upon the most up-to-date source of flood information for the Hawkesbury-Napean River, the site is not identified to be impacted by mainstream flooding or backwater from the Hawkesbury-Napean Valley.

In general, there is a low flood risk during the 1% AEP as existing, and flood depths are considered as sheet flows. The surrounding roads are generally categories as low hazard in the 1% AEP event. The site is subject to overland flow in the PMF event, with the extent of inundation confined to the north eastern portion of the site, with the flood depths on site being less than 50mm, but

generally flows are contained within the riparian corridor to the east. Refer to Figure 19 and Figure 20 below.



Figure 19 Existing 1% AEP event flood levels and depths

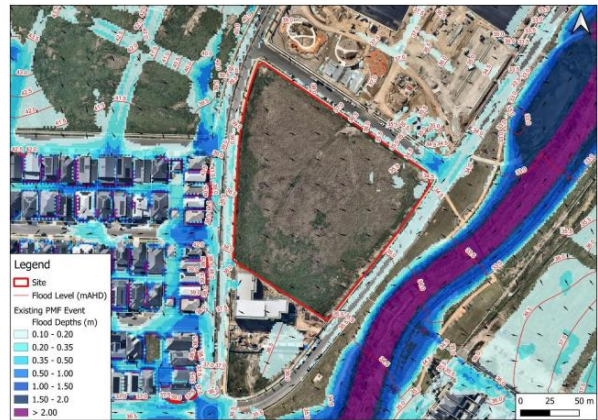


Figure 20 Existing PMF event levels and depths

Source: TTW

Following the proposed activity, the site will be subject to minimal overland flow. Pooling of floodwaters is evident particularly surrounding the proposed school buildings as a result of the proposed earthworks, as illustrated in Figure 21. In the 1% AEP event, depths are anticipated to peak at 1.05m within the western portion of the site. The flood hazard across the site is still considered to be low, and can be managed through site stormwater management, as discussed in Section 7.4.2 below.

In the post-works PMF event, pooling floodwaters around the buildings are of a similar depth to the 1% AEP event, peaking at 1.5m to the eastern boundary of part of the school building. Flood hazard and velocities have increased in the PMF event; however flows are contained within the riparian corridor to the east of the site.



Figure 21 Peak flood levels and depths in the 1% AEP event post-construction



Figure 22 Peak flood levels and depths in the PMF event, post-construction

Source: TTW

The proposed cut around the buildings has resulted in increased flood levels in both events, which exceed the proposed Finished Floor Levels (FFLs). As part of the project, increased flood levels will be addressed through stormwater management measures, as detailed in Section 7.4.2 below, with the stormwater design to be developed during detailed design stage, as stated in Appendix 1.

As the site is considered to be a sensitive facility under The Hills DCP, the report recommends that the proposed primary school and preschool must be protected to the PMF level. Accordingly, the FFL of all buildings are set at least 200mm above the surrounding ground levels, which provides immunity to the PMF event as the largest flood event that could conceivably occur at a given location.

It is concluded that the project will not result in any changes to flood levels off-site in both the 1% AEP event and PMF event.

Climate Change Impacts

As noted in the Flood Impact and Risk Assessment, an analysis of the 1% AEP event has been undertaken with regard to climate change. An analysis was undertaken using the ARR2019 Interim Climate Change Factor for the site in the 2090 RCP8.5 scenario, which equates to a 19.7% increase in rainfall intensity, to determine the impact of climate change on local flood conditions.

Impacts are expected to be minimal, with the largest increase anticipated to the northwester proposed building, up to 53mm, however flood extent is mainly confined to the eastern creek. The study still does not envisage mainstream flooding on site.

The FFLs of all buildings, which have been set at least 200mm above the surrounding ground levels, therefore provides significant immunity to the PMF event, with consideration to climate change.

Flood Emergency Response

A Flood Emergency Response Plan has been prepared by the flood consultant (Appendix 10), and analyses access and egress for pedestrians and vehicles in the event of a flood event, during standard school hours, OOSH care, and weekend community use of the site, which includes pre-emptive closure as the preferred strategy, with shelter-in-place recommended for flash flooding. The Flood Emergency Response Plan has been developed in accordance with the new NSW Shelter in Place Guidelines, and acknowledges that during a severe storm event, evacuation from the site may be more hazardous. Nonetheless, emergency vehicles can still access both the primary school and preschool via Cataract Road and Fontana Drive.

A final Flood Emergency Response Plan will be prepared and implemented prior to the commencement of operation. This is reflected in the mitigation measures at Appendix 1.

Mitigation Measures

A summary of the key flood related mitigation measures, as detailed in Appendix 1, are set out below:

- **Operation** - A final Flood Emergency Response Plan is to be incorporated with the Emergency Management Plan and include the following:
 - a) Prioritise evacuation and avoid shelter-in-place by closing the school before the school day if flood events are forecasted and SES advises.
 - b) School administration must undertake annual evacuation preparations and an evacuation drill prior to the commencement of the wet season (typically November to April);
 - c) School administration to undertake responsibilities as set out in the FERP; and
 - d) Ensure that the Flood Warning Notice is maintained and permanently visible.
- **Operation** - Delegate Staff Responsibilities so all staff are aware of their specific roles flood response actions.

- **Operation** - Flood drills to be held by staff annually to ensure all staff workers and students are familiar with the sound of the alert and their subsequent flood response actions.
- **Design** - Sufficient drainage provisions should be provided around each proposed building within the site to fully contain and divert anticipated stormwater runoff away from the building for all events up to and including the PMF event.

7.4.2 Stormwater

A Concept Stormwater Management Report supports this REF, which includes a description and assessment of the proposed stormwater, drainage, and sediment/erosion control measures to be implemented in the proposal.

As the site is part of a wider master planned development, the proposed construction lake and detention basins, to the north of the site, will be utilised. A stormwater system in the form of overland flow paths is provided to direct overland flow to proposed bio swales near the eastern boundary along Cataract Road, to minimise stormwater runoff entering neighbouring sites. The proposed stormwater drainage strategy also includes a pit and pipe system to direct minor flows away from the buildings and car parks, directly towards the existing kerb inlet pits along Pennant Way and Cataract Road, after raingarden infiltration.

The Report confirms that the new stormwater drainage system will minimise any adverse impacts to the post-works flow during the 10% AEP event at the site, only increasing by 34l/s from the existing condition, which is not deemed significant.

Water quality measures were also considered and detailed in the report, to mitigate and exceed stormwater borne pollutant targets. The WSUD treatment system will include a storm filter, ocean guard inlet pits which sit adjacent to the preschool car park within the landscaped area, and a raingarden. The technical stormwater management plan has been designed to meet The Hills Shire Council's requirements and is therefore considered adequate.

Sediment and Erosion Control

The report has identified a number of erosion and sediment control measures at Appendix 11, including catch drains, sediment fence, straw bales within the vegetated swale, inlet trap and filters. These will be put in place during construction to minimise the risk of sediment being washed into neighbouring properties and to avoid erosion from occurring on the site and regularly maintained where required.

Further mitigation measures are set out in Appendix 1 and summarised below.

Mitigation Measures

- **Operation** - An Operational Environmental Management Plan (EMP) and Operations & Maintenance Manual by a manufacturer (Ocean Protect) will be prepared and implemented and detail the inspection frequency of the erosion and sediment control measures.
- **Construction** - Monitoring of the erosion and sediment control measures will be undertaken by a qualified consultant to determine the impact of construction activities on the subject site only.
- **Design** - A detailed survey of the road will be undertaken during the detailed design phase to ensure that the street pits will not be surcharged during minor events up to the 10 years ARI storm event and up to the 20 years ARI storm event for sag pit.

7.5 Contamination and Hazardous Materials

The REF is accompanied by a Preliminary Site Investigation (PSI) and Detailed Site Investigation (DSI) prepared by a contamination consultant (Appendix 23 and 24, respectively) that assessed the potential of contamination at the site and the site's suitability for the erection of a school and preschool.

The PSI identified a number of areas of environmental concern from a former DSI report undertaken for the entire precinct, which were further investigated via soil sampling, including across four locations of the subject site. Following a site walkover in 2022, the potential contamination sources were identified as:

- Possible filling (including historical burial of waste)
- Historical agriculture (Market gardens and paddocks)
- Surface debris/ stockpiles
- Former site structures / Potential asbestos containing material

A DSI was therefore undertaken, including the testing of 40 primary soil samples. All soil samples were below the site assessment criteria for each of the associated contaminants of potential concern. Asbestos was not detected within the soil samples analysed.

The DSI involved the installation of a total of 25 test pits. No groundwater was encountered in any of the test locations. No free groundwater was observed during excavation of test pits or drilling of boreholes.

Accordingly, the DSI provides a range of management recommendations to appropriately manage contaminated materials, including an additional assessment as required to provide a final waste classification for surplus soils requiring off-site disposal.

Based on a review of the available contamination assessments and works undertaken at the site it is considered that the site is suitable for the proposed primary school subject to implementation of the mitigation measures set out in Appendix 1 and detailed below.

As the reports did not identify any need for active remediation to facilitate the proposed activity, it is confirmed that there is no requirement for a Remediation Action Plan to support this REF. Refer to the Advice Letter on Remediation Action Plan Requirement and subsequent email prepared by the contamination consultant for further justification (Appendix 25 and 26 respectively).

Mitigation Measures

- **Construction** - An unexpected finds protocol (UFP) should be prepared and implemented during site works to address any potentially impacted fill (including asbestos contamination).
- **Construction** - If any previously undetected contamination is found, the procedures in the recommended unexpected finds protocol for the identification, assessment and, if needed, remediation will be implemented.
- **Construction** - Additional assessment as required to provide a final waste classification for surplus soils requiring off-site disposal.

7.6 Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) has been carried out by a heritage consultant (Appendix 32) in accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).

A four-stage consultation process with Aboriginal stakeholders and interested parties was undertaken in 2023 and a total of 10 Registered Aboriginal Parties (RAPs) expressed their interest in being involved in the consultation process for the site. Based on the consultation, a draft ACHAR report was prepared and provided to all RAPs for feedback and comment on 18th October 2023. Four responses were received from RAPs, which were all supportive of the recommendations made and as such, no amendments were required.

No specific cultural significance was identified in the study area by any of the RAPs. All archaeological and intangible cultural heritage sites are considered highly significant to Aboriginal people, but the study area is not considered to hold any specific cultural significance. The report concludes that due to extensive ground disturbance, there is nil to low potential for Aboriginal archaeological deposits. Nonetheless, if an Aboriginal site or object is suspected or identified an unexpected finds protocol should be implemented during construction, as detailed in Appendix 1.

7.7 Bushfire

A Bushfire Protection Assessment has been carried out by a bushfire consultant (Appendix 33) to assess the proposed activity against the *Planning for Bush Fire Protection (RFS 2019)* (PBP 2019).

The site lies within partially bush fire prone land, due to the site's location adjacent to a riparian corridor to the east, which is identified as a Vegetation 2 category. The associated vegetation buffer encroaches into the site.

As the school is classified as a Special Fire Protection Purposes, emphasis is placed on the space surrounding the built works. The determined Asset Protection Zone (APZ) utilises the approved and secured APZ for the parent subdivision (as shown in **Figure 23** below), and the report confirms that the APZ complies, or will comply, with the relevant performance criteria documentation in the PBP 2019.



Figure 23 Bushfire Hazard Assessment

Source: Eco Logical Australia

A bush fire safety authority will be sought owing to the activity being for a Special Fire Protection Purpose on bush fire prone land, in accordance with Section 100B of the *Rural Fires Act 1997 No 65*.

A comprehensive Bushfire Emergency Management Plan shall be developed prior to the facility commencing operation. A series of other recommendations have been set out in the mitigation measures at Appendix 1, including the below.

Mitigation Measures

- **Design/Construction/Operation** - Prior to construction, DoE must ensure the identified APZ (Table 4 and shown in Figure 3) is maintained to the specifications detailed in Appendix 1. During operation, DoE must ensure APZ are managed in perpetuity.
- **Design/Occupation** - Prior to occupation, DoE must ensure landscaping within the site is designed to meet the requirements of PBP listed in Appendix 1.
- **Design/Construction/Operation** – Prior to occupation, DoE are to ensure the buildings are designed and constructed to the relevant NCC requirements including BAL-19 based on the construction specifications detailed in AS 3959-2018 and additional ember provisions detailed in section 7.5 of PBP as required. At commencement of construction and during operation, DoE to ensure fencing is within 6 m of a building, they will be made of non-combustible material only.
- **Design/Construction/Operation** - Prior to construction, DoE to ensure fire hydrants are provided in accordance with AS2419:2021.
- **Design/Construction/Operation** - Prior to construction, DoE to ensure gas services (if installed) are installed and maintained in accordance with AS/NZS 1596:2014.
- **Operation** - Prior to operation of each stage, DoE to prepare an emergency management plan meeting DoE emergency management policy and requirements. As subsequent stages are constructed and prior to occupation of subsequent stages, DoE must update the emergency management plan accordingly.

7.8 Social Impact

A Social Impact Assessment has been prepared a social impact consultant (Appendix 34) in accordance with the *Social Impact Assessment Guideline for State Significant Projects (2021)*. The purpose of Social Impact Assessment is to assess the impacts of the activity, both positive and negative, for all stages of the project lifecycle for key stakeholders and the broader affected community.

7.8.1 Local Social Context

The SIA identified two areas of social influence:

- **Primary Social Locality (PSL)** – The PSL is defined by an area of roughly 250m surrounding the site.
- **Secondary Social Locality (SSL)** – The SSL is defined using proposed school catchment zone outlined by the Schools Infrastructure NSW Community and Engagement Strategy.

The SIA summarises the demographic changes within the SSL particularly has experienced very high levels of population growth between 2016-2024, with an annual growth rate of 57.4%. The majority of households being family households with children. Households earn higher than average, and homeownership is relatively high.

7.8.2 Social Impact

The SIA evaluates the Proposal's potential impact on the community and social environment compared to the baseline scenario of the site's existing use and social context.

The evaluation includes a risk assessment based on the social impact significance matrix provided within the DPE *Social Impact Assessment Guidelines (2021)*. The matrix determines a social impact's risk based on the following considerations:

- The likelihood of a social impact based on:
 - The findings of the various technical reports; and
 - The social baseline study.
- The magnitude of a social impact based on the duration, extent, severity and sensitivity of each impact.

Table 17 provides consideration of social impacts.

Table 17 Social Impact

Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively
Impacts on access – will there be an improvement to the quality of provision and a response to emerging and changing needs?	The proposal directly responds to a growing demand for accessible public educational establishments to cater for the population growth associated with the development of the Box Hill North Precinct. The school will provide capacity for 1,000 students which is considered sufficient to meet the community's future demand for all capabilities.
Impacts on privacy, overshadowing, peace and quiet, and visual amenity (views / vistas) - will there be significant change for neighbours and the local area during both construction and operation?	<p>This REF and the accompanying technical documents confirm that the proposal is unlikely to result in adverse visual impact and loss of privacy impacts to members of the community. Instead, the proposal will deliver the following positive impacts:</p> <ul style="list-style-type: none"> • The school and preschool design and massing better complement the residential character of the surrounding area. The new primary school and preschool's positioning on the site, which incorporates extensive landscaped setbacks to all property boundaries, also provides visual privacy for occupiers of adjoining land. • The Proposal will increase the site's canopy coverage from nil to 15%, delivering significantly improved environmental outcomes. • As shown in the shadow diagrams included in the Architectural Drawing Package (Appendix 3), the proposed design will not cause adverse overshadowing impacts to neighbouring developments. <p>Refer to Section 7.9 for further discussions.</p>
Impacts on sense of place - will there be effects on community cohesion or how people feel connected to the place and its character?	<p>The proposal provides a significant piece of social infrastructure that will provide accessible public education provision in a locality whereby this is unavailable.</p> <p>The proposal will improve accessibility of community facilities in the area with potential shared community uses on the site, including school hall and sports court. The proposal will also share access to the new Gables Central Playing Fields facility.</p>

Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively
Impacts on the way people get around – will there be changes associated with traffic or parking in the area?	The intention of the proposal is to deliver education and care uses at an accessible location, for the existing and evolving local community.
Impacts on wellbeing - will there be benefits for students and the community associated with better school facilities, sporting facilities and grounds, and active transport options?	<p>The activity will promote significant benefits on wellbeing including:</p> <ul style="list-style-type: none"> • The delivery of high-quality flexible learning and teaching environments in purpose-built spaces. • The provision of extensive outdoor play spaces, which have incorporated Designing with Country principles to improve social cohesion. • The provision of new sports facilities including a games court, that will promote more active movements. • The delivery of pedestrian crossings and refuge islands within the surrounding road network, alongside sufficient bicycle storage provision, end of trip facilities and a new bus zone, will encourage the use of sustainable modes of transportation.

The design approach has also considered the Crime Prevention Through Environmental Design (CPTED) principles, including surveillance, access control, territorial reinforcement and space management, as detailed in the Architectural Design Report (Appendix 4). The Report sets out various design measures that have been adopted in consideration of the aforementioned principles including:

- Ensuring public spaces are visible from the street.
- Provide fencing around the site.
- Clear distinction between spaces.
- Identifiable site entries that are visible for casual surveillance.
- Well-lit external spaces.

It is considered that through the adoption of these design measures, the proposed activity will make a positive contribution to The Hills Shire Council LGA's broader community safety objectives.

Overall, the project is assessed to have a positive social impact for the community, with the benefits associated with the delivery of a new primary school and preschool is considered to have a high to very high positive social impact. Notwithstanding this, the social impact consultant confirm that any negative social impacts owing to the construction of the facility will be short lived and can be successfully managed through implementation of the Mitigation Measures listed in Appendix 1, including the below.

Mitigation measures

- **Operation** - Support the development of community programming such as a monthly school market to foster community use of the proposed school grounds to foster community cohesion.
- **Operation** - Encourage community-based walking to school programs, such as the 'Walking School Bus'. This typically involves parents from the community leading a walking group of primary school students to and from school.

- **Operation** - Use school programs to encourage active transport use. This may include the implementation of education programs such as Bike-ed, which is designed to teach children how to cycle and navigate local street networks safely.
- **Construction** - Liaise with parties responsible for development across the locality to coordinate community notification of construction works, particularly for road closures and detours.
- **Construction** - Consult with Aspect Hills Shire School on the timing and impact of works and any specific mitigations to consider that could reduce disruption to students.

7.9 Other issues

Issue	Consideration
Visual Amenity	<p>Prevailing receptors within the site's immediate visual catchment are relatively low in number. The site is visible from all boundaries, owing to the site's location fronting Pennant Way, Fontana Drive and Cataract Road. The Architectural Design Report (Appendix 4) includes photomontages illustrating the view of the campus from the visual catchment, being the surrounding road network.</p> <p>The design approach incorporates the following design moves to minimise adverse visual and amenity impacts and positively contribute to the surrounding neighbourhood's character.</p> <ul style="list-style-type: none"> • The school's building height is limited to three storeys, with the adjacent preschool set out across one storey, to compliment the residential character of the surrounding area. • The site is located along the northern and western boundaries of the site, minimising visual impact from Cataract Road. • The material palette of the proposal is sympathetic to contextual elements whilst maintaining a contemporary new primary school and preschool. • The Proposal includes extensive landscaped setbacks to all property boundaries. This provides a visually appealing setting for the new primary school and preschool, improves the streetscape of surrounding roads and provides screening to the new car parks. <p>The site is not identified as, or located near, a heritage item or a heritage conservation area under Schedule 5 of The Hills LEP or the State Heritage Inventory.</p> <p>Due to the commensurate height, bulk and scale of the proposed new primary school and preschool, there will be no adverse impacts on views within, from or to the local area. Based on the above reasons, the new primary school and preschool represents a significantly improved visual outcome compared to the existing vacant grassed land and will provide significant public benefits to the local community.</p>
Overshadowing	<p>This REF confirms that the proposal is unlikely to result in adverse overshadowing. The REF is supported by shadow diagrams provided in Appendix 3.</p> <p>The diagrams illustrate the overshadowing associated with the proposed buildings, at 9am, 12pm and 3pm on June 21 (winter solstice) and 21 December (summer solstice).</p>

Issue	Consideration
	<p>The shadow diagrams show that the proposal will not result in any impact to the surrounding areas as the shadowing will be wholly contained within the boundaries of the school site.</p> <p>The proposal will result in shadowing impacts to the landscaped areas, within the school site, to the east of the buildings, between 9am and 3pm during the winter solstice. However, this is considered minor in the context of the wider open space provision throughout the site.</p>
BCA Compliance	<p>The proposed activity has been assessed as being capable of achieving compliance with the Building Code of Australia 2022, subject to addressing the matters during design development outlined in the Building Code of Australia 2022 (BCA) Assessment Report prepared by a building compliance consultant Appendix 35.</p>
Accessibility	<p>The proposed activity has been assessed as being generally in accordance with, and capable of complying with, the relevant requirements of the Building Code of Australia, Volume 1 2022 Part D4 E3 and F2, and the Premises Standards. Compliance will be demonstrated prior to issue of design compliance statement. Refer to the Accessibility Assessment prepared by the building compliance consultant at Appendix 36.</p>
Soils and Geology	<p>The site has a gentle slope from west to east. The design approach has considered the topography of the land and does not introduce below ground basement structures, to minimise excavation. Nonetheless, the proposal will require a total cut volume of approximately 2,845m³ and a maximum fill of 2,241m³.</p> <p>The Geotechnical Assessment prepared by the contamination consultant (Appendix 27) found that the interpreted subsurface profile was underlain by variable depths of apparently controlled fill, then a variable thickness residual clay layer, and a weathered Ashfield Shale and Hawkesbury Sandstone profile.</p> <p>The Geotechnical Investigation Report makes various recommendations which will need to be considered as the design is further developed, including:</p> <ul style="list-style-type: none"> • Site preparation and earthworks • Foundations • Pavements • Soil Aggressivity • Seismicity <p>For site preparation and earthworks, a programme of cone penetration testing is recommended to determine the quality of the existing fill on site, which is currently deemed inappropriate for the support of high-level footings and floor slabs.</p> <p>Excavation of the fill and residual clay is likely to be possible using conventional techniques. For excavations, batters will be required for cuts in fill and residual soil. For groundwater, a pump is deemed necessary to remove stored water form the lowest part of any excavation.</p> <p>For foundations, it is expected that shallow spread footings will be directly founded within existing fill and pile foundations are likely to be required to support the loads of the proposed school buildings.</p> <p>The results of the investigation suggest that the proposal should be feasible from a geotechnical perspective. The results of the Geotechnical assessment have informed the structural design of the school and will be further considered during</p>

Issue	Consideration
	<p>design development.</p> <p>A Salinity Investigation and Management Plan has been undertaken by the contamination consultant (Appendix 28). The site is not affected by any Acid Sulfate Soils, but it located within an area of 'moderate salinity potential'. 36 samples were tested in total, for aggressivity, salinity, sodicity and dispersion. The test results identified:</p> <ul style="list-style-type: none"> • 'Non-aggressive' and 'mildly' aggressive conditions for buried concrete, and generally 'non-aggressive' conditions for buried steel elements. • 31% (5 out of 16) of tested soil samples were non-saline, 44% (7 out of 16) were slightly saline and 25% (4 out of 16) were moderately saline. • Three samples were sodic and one sample was highly sodic. <p>The identified results are not considered to hinder the proposed activity, subject to appropriate management techniques to ensure the longevity of structures in contact with saline and aggressive soils, as detailed within the salinity management plan has been provided to support this REF.</p>
Ecology	<p>The site is clear of any vegetation and no tree removal is proposed. It is noted that waiver to prepare a Biodiversity Development Application Report under section 7.9(2) of the Biodiversity Conservation Act 2016 (BCA) was granted in April 2024 (Appendix 8). Accordingly, no further assessment is required.</p> <p>It is noted that two (2) trees in the street reserve will require removal for construction access into the car parks. The project team will seek approval to remove these trees via a tree removal permit in a separate process from this submission. A mitigation measures requiring a Tree Removal Permit be obtained prior to construction of the relevant works is set out at Appendix 1.</p>
Operational Waste	<p>Operational Waste</p> <p>An Operational Waste Management Plan (OWMP) has been prepared by a waste consultant (Appendix 38) and provides an assessment of potential waste impacts associated with the operation of the school. It has been prepared in line with The Hills DCP, as well as a range of waste management guidance at a local, state and federal level.</p> <p>The report outlines waste generation estimates for the proposed land use, which have been calculated based on generic waste and recycling rates. Based on these calculations, the report recommends bin sizes, quantities, and collection frequencies, as follows:</p> <ul style="list-style-type: none"> • General Waste: 4 x 1100L bins collected every 2 days (approx. 3 times weekly) • Recycling: 6 x 1100L bins collected every 2 days (approx. 3 times weekly) <p>The proposal has been designed accordingly to accommodate the above recommendations. The areas allocated for waste storage and collection areas are detailed in Section 3.9 of this REF. Any mitigation measures outlined are also iterated in Appendix 1.</p>
Air Quality and Odour	<p>The activity area fronts two local roads and one collector road. The site is surrounded by a mix of uses owing to the Box Hill North Precinct development, including existing and planned residential development, with a future school development to the immediate south and a future recreational area to the immediate north.</p> <p>There are no demolition works required as part of the proposal and owing to the temporary nature of the construction activity, the potential impact is not considered</p>

Issue	Consideration
	<p>significant and can be managed or minimised through the implementation of appropriate controls, as detailed in the Preliminary Construction Management Plan (Appendix 22) and summarised below:</p> <ul style="list-style-type: none"> • Clear definition of trafficable and material storage areas to prevent unnecessary vehicle movement into other areas; • Use of water carts to dampen work areas and exposed soils to prevent the emission of excessive dust; • Installation of a wheel shaker grid and/or wash down facilities at the vehicle egress point during excavation works; • Ensuring trucks transporting materials to and from the site use covers to prevent windblown dust or spillage; • Ensuring truck tailgate locking mechanisms are operational and in use; • Periodic inspection of surrounding roads to ensure no construction contamination and initiation of road sweeping if required; • Careful selection of materials for temporary road surfacing; • Subcontractors to maintain equipment/machinery to ensure exhaust emissions comply with relevant legislation and guidelines; • All waste material to be sorted, collected and removed from the site (for recycling where possible); and • Air quality monitoring. <p>The Preliminary Construction Management Plan also concludes that the amount of odour generated by the works will be influenced by the extent of open excavation stockpiles, weather conditions and the quality of excavated material. The Management Plan identifies various odour control measures including consideration of the following:</p> <ul style="list-style-type: none"> • Location and cause of odour; • Minimisation of odour and its source; • Odour management response procedures; and • Implementation of an odour monitoring regime. <p>It can therefore be concluded that subject to the implementation of a Construction Environment Management Plan and the relevant recommendations within, the proposal is acceptable on air quality and odour grounds.</p>
<p>Land Use</p>	<p>The activity is not in proximity to a restricted land use. The wider locality is part of the Box Hill North Precinct, which is planned for a mixed-use urban neighbourhood and the site itself is envisaged for an educational establishment. As such, the works are entirely consistent with the statutory and strategic framework relevant to the site, and owing to the surrounding development context, the proposal is not considered to disrupt the surrounding land uses.</p> <p>There are no nearby oil or gas pipelines, nor unexploded ordinances that are considered to pose a hazard risk. The site is also not located within a mine subsidence area.</p> <p>An Electrical and Communications Infrastructure Delivery and Management Plan has been prepared by an electrical services consultant and confirms that the Endeavour Energy's High Voltage 11kV underground (HV UG) network reticulates on the northern footpath along Pennant Way. A 1000kVA Pad-Mount Substation has been provided to the northern boundary of the site, in close proximity to the existing feeder. An appropriately sized easement has been considered in the design process over the substation. This will be subject to a separate application made to Endeavour Energy.</p>

Issue	Consideration
	The Plan also identified the nearest telecommunications infrastructure further north along Red Gables Road and a new connection will be made along Cataract Road and Pennant Way to service the school.

7.10 Cumulative Impact

The site's surrounding context is transforming from former rural lands into a new urban neighbourhood in line with the Box Hill North Precinct Masterplan. It is noted that aspects of the Masterplan have altered since its inclusion in The Hills DCP, including the construction of the Santa Sophia Catholic College in the indicated area for the Precinct's 'retail/mixed use' area and the planned development of a childcare centre immediately to the site's south.

As referenced in **Section 2**, the current and planned development that surrounds the site includes:

- **North:** Pennant Way was recently constructed immediately north of the site between Fontana Drive and Cataract Road. A vacant lot is located on the other side of the road, where a future sporting field with associated car parking is under construction. The Santa Sophia Catholic College, constructed in 2021, is further north on the other side of Red Gables Road.
- **East:** Beyond the riparian corridor as previously discussed, residential dwellings are envisioned further east of the site in a currently vacant lot.
- **South:** There are two lots immediately south of the site (Lots 10 and 11 in DP 1286147). A development application was approved on 22 September 2023 (DA/730/2023/JP) to construct an 80-student educational establishment on Lot 10 that will provide specialist school programs for children with autism. The school is due to open in 2025, during construction of the proposed Gables New Primary School and Preschool. A development application was also approved on 9 December 2022 (1739/2022/JP) to construct a centre based childcare facility on Lot 11 that has a maximum capacity of 130 children. Sidley Park is located further south on the other side of the Riparian corridor and is surrounded by low-density residential dwellings.
- **West:** A collection of recently completed low-density residential dwellings are located west of Fontana Drive. The Box Hill North Precinct Plan envisions further residential development to the site's northwest.

A review of online sources suggests there are not any other developments in the local area that would result in cumulative impacts that would need to be managed.

The proposed works are unlikely to have a cumulative impact on any neighbouring properties. Traffic, noise, dust and other impacts associated with construction are likely to be minimal and will be managed in accordance with a detailed Construction Environmental Management Plan.

Impacts to the Aspect Hills Shire School, located to the immediate south of the site, have been considered within the technical reports prepared and submitted alongside this REF. Any impacts to the Aspect Hills Shire School are not considered to be significant and are limited to the construction stage of the works, which are temporary in nature.

The Gables New Primary School and Preschool will deliver significant benefits to the community and is not expected to give rise to any unacceptable environmental impacts that cannot be appropriately managed. The mitigation measures provided at Appendix 1 aim to ensure any long-term impacts are appropriately managed. Overall, the proposal is considered to have positive impacts in the long-term, in making more efficient use of the existing land and contributing to the growth of the Box Hill North Precinct.

7.11 Section 171 of the EP&A Regulation Assessment

Section 171(1) of the EP&A Regulation notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the guidelines that apply to the activity.

The assessment provided in the sections above has been prepared to provide a detailed consideration of the factors that must be taken into account for an assessment under Part 5 of the EP&A Act.

These factors are summarised at Table 18 and where mitigation measures have been proposed in response to the factor, these have been identified.

7.12 Section 171A of the EP&A Regulation

Section 171A of the EP&A Regulation prescribes additional considerations for activities proposed within regulated catchments. The proposal is located within the Hawkesbury-Nepean Catchment which is a regulated catchment.

Section 171A of the EP&A Regulation sets out additional matters to take into account when considering the likely impact of an activity on the environment in a regulated catchment.

The assessment provided in the sections above has been prepared to provide a detailed consideration of the factors that must be taken into account for an assessment under Division 5.1 of the EP&A Act. These factors are summarised at Table 18 and where mitigation measures have been proposed in response to the factor, these have been identified.

Table 18 Summary of Environmental Factors Reviewed in Relation to the Activity

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
(a) Any environmental impact on a community?	<p>(a1) Impact during construction – such as noise, vibration, traffic, construction vehicle routes, access and parking, pollution/dust, water and stormwater flow, sediment and run-off, waste removal, servicing arrangements, bushfire, flooding, contamination, other construction occurring in the area.</p> <p>(a2) impact post-construction (including from any development, activity, public-address systems and sirens, signage, events, hours of operation, or out of hours use of facilities, helicopter facilities, emergency facilities) which may include:</p> <ul style="list-style-type: none"> (i) water flow/water quality, downstream impacts (ii) flooding impact, flood evacuation routes, changes to flood risk and patterns (iii) bushfire impact, bushfire evacuation routes, changes to bushfire risk and patterns (iv) impact, during a flood or bushfire event, on existing infrastructure such as roads, etc (v) impact on emergency response to existing Communities (vi) waste and servicing arrangements (vii) traffic and parking impacts, pedestrian and road safety (including pedestrian and cyclist conflict and safety), operation of the surrounding road network, impact on road capacity, including peak hour, intersection performance and any cumulative impact from surrounding approved developments, impacts of potential queuing in drop-off/pick-up zones and bus bays during peak periods, emergency drop-offs, servicing and loading/unloading areas, large vehicles and height clearances, parking arrangements and rates. Consider in the context of availability, frequency, location and convenience of public 	<p>The proposed activity involves works on a clear and vacant parcel of land for a new primary school and preschool.</p> <p>The activity will not have significant environmental impacts on the community. There is likely to be an increase in vehicles and noise during construction works, however this will be temporary in duration. Such impacts can be appropriately minimised by the imposition of mitigation measures.</p> <p>The new buildings integrate with the built form of the surrounding residential context in a scale that is suitable for the community. The activity has been designed to enable traffic and pedestrian impacts to be managed with dedicated pick up and drop off and street crossings. Operational hours are typical for a school and preschool and operational impacts can be adequately managed. Overall, the activity is considered to have a high to very high positive social impact.</p> <p>On balance, the proposal would be of benefit to the community.</p>	<p>Multiple</p> <p>Refer to Appendix 1</p>

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
	transport and consequences of parking overflowing into adjoining streets (viii) existing utility infrastructure and service provider assets (a3) impact on flight paths of nearby airport, airfield, or helicopter landing sites (a4) other environmental impacts (social, economic or cultural) on the community not mentioned above (a5) cumulative impacts from the development and other surrounding approved developments		
(b) Any transformation of a locality?	(b1) impact on the existing and future character of the neighbourhood, streetscape and local area (b2) impact on the operation of existing and future surrounding uses, including industrial or agricultural land uses (b3) visual impact from key viewpoints and views to key viewpoints (b4) cumulative impacts from the development, and other approved developments, on the locality	The activity will result in changes to the visual appearance of the site, which is currently vacant of development. The new primary school is identified as a key component of the new master planned community. It will visually enhance the site, providing significant tree canopy and additional pedestrian infrastructure surrounding the school. The new buildings will establish a legible language between the wider town centre and the institutional facilities if the new primary school. The visual appearance is to be improved by the activity in the long-term. Any negative visual impacts during construction will be minor and temporary and can be managed to minimise external impacts.	Multiple Refer to Appendix 1
(c) Any environmental impact on the ecosystems of the locality?	(c1) impact on the existing and future ecosystem (flora, fauna, habitats, biodiversity, ecological integrity, biological diversity, connectivity/fragmentation, air, water including hydrology, soil) (c2) long- and short-term impact of: (i) loss or harm to trees or other vegetation (ii) removed canopy cover (iii) landscape setting in respect of the site and streetscape (iv) impacts of the above on urban heat island effect and urban	Environmental impacts associated with the activity are generally minor and of temporary duration. The site is clear of tree canopy and so the activity will significantly improve the landscape setting and urban heat island effect through planting 3,380m ² of tree canopy, which is equivalent to 15% of site coverage. A full assessment of environmental impacts, including water quality and ecology, is contained in Section 0. Any environmental impacts	Multiple Refer to Appendix 1

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
	and internal comfort levels on and off-site (c3) impact from introducing new trees and vegetation species (c4) cumulative impacts on the ecosystem	will be minimal and will be subject to appropriate mitigation measures as detailed in Appendix 1.	
(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	(d1) impacts onto adjoining properties and public spaces (particularly in residential areas) such as lighting impacts and light spill, acoustic, visual privacy, noise and vibration (including from helicopters and ambulances), visual amenity, solar access, view loss and view sharing, vistas, overshadowing, local character, streetscape, weather factors such as wind impacts (i) the above should be considered from any proposed development or activity on the development site, public-address system, ambulance siren, flashing signage, event, hours of operation, or out of hours use of school facility, helicopter facility, emergency facility, research centre where hazardous material is being used or stored and any potential incident, etc. (d2) impacts on connectivity, permeability and accessibility of public spaces and areas surrounding the development, this includes impacts on arterial and other thoroughfares and green corridors and wayfinding (d3) impacts on other aesthetic, recreational, scientific or other environmental quality or value of the locality not mentioned above or in (a) and the cumulative impacts	The new primary school is to be constructed on an existing cleared and unused vacant area. This under-utilised area will be lost; however, the new primary school will enhance the locality with new and modern educational facilities with enhanced landscape and open spaces which will improve the visual appearance of the locality, in alignment with the surrounding development context as part of the Box Hill North Precinct. The activity has been designed to ensure impacts onto adjoining properties are either avoided or managed to be acceptable. There will be additional noise from students at key times during the day, however the impact of this is reasonable with the building itself acting as a barrier to residential properties to the north and west. A line of street trees surrounding the site provide a pleasant vista, which is to be maintained.	Multiple Refer to Appendix 1
(e) Any effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical,	(e1) impacts on heritage items (local, state and commonwealth), conservation areas and Aboriginal heritage (including intangible cultural significance), draft and interim items. Both at / or near the site (e2) impacts on Aboriginal cultural heritage values on the land and connection to Country (e3) direct or indirect impacts on the heritage significance of	The activity will have little to no impact on Aboriginal Cultural Heritage and non-Aboriginal heritage values. An unexpected finds protocol will ensure that any impacts can be appropriately managed should they arise.	HMM1 HMM2 HMM3

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
scientific or social significance or other special value for present or future generations?	environmental heritage, impacts to archaeological resources (e4) impacts on aesthetic, anthropological, architectural, cultural, historical, community values and identity, scenic values, scientific or social significant items, or items of other special value for present or future generations		
(f) Any impact on the habitat of protected animals, within the meaning of the <i>Biodiversity Conservation Act 2016</i> ?	(f1) impacts on listed protected fauna at and in the vicinity of the site, and their habitat.	The activity site is within land that is cleared of any vegetation or habitat and no tree removal is proposed.	N/A
(g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	(g1) potential endangering of any species or vegetation (g2) protected and threatened flora, terrestrial, fauna species, populations, ecological communities and their habitats	As above, the site is unlikely to include habitat utilised by any threatened species.	N/A
(h) Any long-term effects on the environment?	(h1) Long-term effects on: (i) flood and bushfire behaviour, flooding and the flood plain, bushfire prone land (ii) natural environment, flora and fauna species and their habitats (iii) agricultural productivity (iv) industrial land supply (v) housing supply (vi) climate change (vii) cumulative impacts (h2) meet industry recognised building sustainability and	Overall, the activity should have a long-term positive effect on the local environment by offering the local community a modern educational facility to serve the local population into the future. Any negative impacts associated with the activity, primarily during construction, will be temporary and managed through the imposition of mitigation measures (e.g. noise, visual, air quality). These matters are discussed in further detail in Section 0.	Multiple Refer to Appendix 1

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
	environmental performance standards, integrate environmental design, minimise greenhouse gas emissions, minimise energy and water consumption (recycled water) and material resources, renewable energy generation and storage, fossil fuel-free, sustainable travel choices, manage, reuse, recycle and safely dispose of waste (h3) long term ecological, social and economic Effects		
(i) Any degradation of the quality of the environment?	No specific factors – to be assessed by the determining authority if relevant	The proposal will not degrade the environment due to the cleared nature of the site. Significant tree planting will improve the quality of the environment. Erosion control measures will be implemented on site to minimise soil erosion.	Multiple Refer to Appendix 1
(j) Any risk to the safety of the environment?	(j1) whether the development will have adverse environmental impacts (flood or stormwater runoff, storm surge, bushfire, ongoing maintenance of landscaping within the Asset Protection Zone, contamination leak, wind speeds, extreme heat, urban heat, climate change adaptation) on the surrounding area, particularly in sensitive environmental, cultural areas or residential neighbourhoods. (j2) impacts on soil resources and related infrastructure and riparian lands on and near the site, soil erosion, salinity and acid sulfate soils, surface water resources (quality and quantity), hydrology, dependent ecosystems, drainage lines, downstream assets and watercourses, groundwater resources.	A flood risk report has been prepared for the site which is discussed in Section 7.4 of this report. It provides details regarding the potential threat to the site and operation of the school in the event of a PMF and how the design of the facility and the proposal has taken into consideration design solutions to mitigate and minimise flood risk. Similarly, a Bushfire Protection Assessment confirms the activity can comply with <i>Planning for Bushfire Protection (2019)</i> . Likewise, mitigation measures will be implemented to minimise any potential impact or risk from contamination.	Multiple Refer to Appendix 1
(k) Any reduction in the range of beneficial uses of the environment?	No specific factors – to be assessed by the determining authority if relevant	There will be no reduction of beneficial uses of the environment. Instead, the proposal will enhance the site by providing a much needed educational facility.	N/A
(l) Any pollution of the	(l1) any pollution during construction and post construction e.g.	Minor air, noise, and water quality impacts may be	Multiple

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
environment?	air (including odours and greenhouse gases); water (including runoff patterns, flooding/tidal regimes, water quality health); soil (including contamination, erosion, instability risks); noise and vibration (including consideration of sensitive receptors); light pollution; waste, including hazardous waste (l2) impact of contamination spill, movement or disturbance during and post construction, and into the long term (l3) impact of a potential rainfall or flood event during construction (e.g. storage of fuel for construction vehicles, stock piles of soil, etc) (l4) dangerous goods and hazardous materials associated with the development (i.e. labs)	generated during construction. Mitigation measures are proposed to manage pollution to the environment.	Refer to Appendix 1
(m) Any environmental problems associated with the disposal of waste?	(m1) environmental problems of waste during and after construction (left over construction materials, and personnel waste), transport and disposal of waste, ongoing use and eventual decommission of the development (m2) cumulative impacts from waste	No environmental problems are anticipated with the disposal of waste from the proposed works. The REF is accompanied by a Construction Waste Management Plan as part of the Preliminary Construction Management Plan, as well as an Operational Waste Management Plan, that outline measures to appropriately classify and either reuse, recycle, process or dispose of waste. Waste will be transported to a facility that is licensed to process or dispose of that waste classification to avoid adverse environmental impacts. Appropriate measures will be undertaken to manage and dispose of waste in accordance with legislative requirements and WH&S documents.	Multiple Refer to Appendix 1
(n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short	No specific factors – to be assessed by the determining authority if relevant	Materials salvaged will be sorted and identified for recycling. Impacts associated with the consumption of natural resources through the use of machinery would be minimal.	Multiple Refer to Appendix 1

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
supply?			
(o) Any cumulative environmental effects with other existing or likely future activities?	(o1) The cumulative effects of noise and impacts to the road network from surrounding existing and approved developments	The proposed works will not contribute to a cumulative environmental effect with existing or likely future activities.	N/A
(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	(p1) coastal processes and hazards (impacts arising from the proposed activity on coastal processes and hazards and impacts on the proposed activity from coastal processes and hazards), climate scenarios	The site is not in the Coastal Zone as identified in the Coastal Management Act 2016 (CM Act), owing to the site's inland location.	N/A
(q) Applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act?	(q1) relevant issues, objectives, policies and actions identified in local, district and regional plans and compliance of the proposal, and policies that identify community priorities that may be impacted (q2) relevant legislation, environmental planning instruments (including drafts, policies and guidelines). (q3) requirements of any approvals applying to the site, including concept approval or recommendation from any Gateway determination	The proposed activity directly aligns with the strategic planning context as outlined below: <ul style="list-style-type: none"> • NSW State Priorities through the provision of future facilities that will allow for new and improved educational services. • The Hills Shire Council's Local Strategic Planning Statement – Hills Future 2036 as it proposes an investment in fit-for-purpose school that is attractive, sustainable, well designed and efficient. • Transport for NSW's Future Transport Strategy 2056 as it would support the ability for the existing school to deliver a new educational facility generating additional new employment opportunities within an existing urban area. • Infrastructure NSW's State Infrastructure Strategy 2018 – 2038 Building the Momentum as it proposes new infrastructure to support 	N/A

Environmental Factor	Division Factors for school developments <i>Guidelines for Division 5.1 assessments</i> <i>Consideration of environmental factors for health services facilities and schools</i>	Response/Assessment	Mitigation Measure Reference
		current and predicted growth in demand for secondary student enrolments within the school catchment.	
(r) Any other relevant environmental factors?	(r1) health or safety risk to children, visitors, patients or staff of the development (r2) developments compatibility with neighbouring land uses, including proximity to: (i) restricted premises, injecting rooms, drug clinics, premises licensed for alcohol or gambling, sex services premises (for schools) (ii) hazardous land uses, waste transfer depots or landfill sites, service stations, air pollutant generating uses, noise or odour generating uses, extractive industries, industrial uses (iii) intensive agriculture, agricultural spraying activities and sources (iv) adjacent to or on land in a pipeline corridor (v) sites which, due to prevailing land use zoning, may in the future accommodate the above uses. (r3) noise/air pollution, vibration and safety impacts from the below on the proposed development: (i) roads with higher traffic volumes, higher operating speeds and more heavy vehicles, freight traffic or used to transport dangerous goods or hazardous materials (ii) rail lines	As identified in the sections below, there are no other environmental factors that will result in any unacceptable impact to the environment.	N/A

8. Justification and Conclusion

The proposed construction and operation of The Gables New Primary School and Preschool at Lot 301 DP 1287967 on Fontana Drive, Gables is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As discussed in detail in this report, the proposal will not result in any significant or long-term impact. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

As outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an evolving need within the community;
- It generally complies with, or is consistent with all relevant legislation, plans and policies;
- It has minimal environmental impacts; and
- Adequate mitigation measures have been proposed to address these impacts.

The activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore it is not necessary for a Species Impact Statement (SIS) and/or a BDAR to be prepared. The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning under Part 5 of the EP&A Act. On this basis, it is recommended that the Department determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.