NSW Department of Education

Review of Environmental Factors

Randwick High School Upgrade

Document version: v5

Date: 2/09/2025

NSW GOVERNMENT

Acknowledgement of Country

The NSW Department of Education acknowledges the traditional custodians of the land on which the Randwick High School Upgrade project 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 Barker Ryan Stewart on behalf of the NSW Department of Education (the department) and assesses the potential environmental impacts which could arise from the proposed upgrades at Randwick High School, 298 Avoca Street, Randwick and Part 90-98E Rainbow Street, Randwick.

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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Abbreviations

Abbreviation	Description
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System
BC Act 2016	*Biodiversity Conservation Act 2016*
BC Regulation	*Biodiversity Conservation Regulation 2017*
BAM	Biodiversity Assessment Method
BCA	Building Code of Australia
BDAR	Biodiversity Development Assessment Report
CA	Certifying Authority
CM Act	*Coastal Management Act 2016*
CEMP	Construction Environmental Management Plan

Abbreviation	Description
CWC	Connecting with Country
The department	NSW Department of Education
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPC	Department of Premier and Cabinet
DPHI	Department of Planning, Housing and Infrastructure
Design Guide	*Design Guide for Schools* published by the Government Architect in May 2018
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environment Protection License
ESD	Ecologically Sustainable Development
FM Act	*Fisheries Management Act 1994*
GBCA	Green Building Council of Australia
Ha	Hectares
LEP	Local Environmental Plan
LGA	Local Government Area
MNES	Matters of National Environmental Significance
NCC	National Construction Code
NorBE	Neutral or Beneficial Effect on Water Quality Assessment Guideline (2022)
NPW Act	*National Parks and Wildlife Act 1974*
NPW Regulation	*National Parks and Wildlife Regulation 2009*
NPWS	National Parks and Wildlife Service (part of EES)
NSW RFS	NSW Rural Fire Service
NT Act (Cth)	*Commonwealth Native Title Act 1993*
OEH	(Former) Office of Environment and Heritage
PCEMP	Preliminary Construction Environmental Management Plan
Planning Systems SEPP	*State Environmental Planning Policy (Planning Systems) 2021*
POEO Act	*Protection of the Environment Operations Act 1997*
Proponent	NSW Department of Education
REF	Review of Environmental Factors
RF Act	*Rural Fires Act 1997*
Resilience and	*State Environmental Planning Policy (Resilience and Hazards) 2021*

Abbreviation	Description
Hazards SEPP	
Roads Act	*Roads Act 1993*
SCPP DoE	*Stakeholder and community participation plan,* published by the NSW Department of Education October 2024
SCPP DPHI	*Stakeholder and community participation for new health services facilities and schools* published by the Department of Planning, Housing and Infrastructure October 2024
SDRP	School Design Review Panel
SEPP	State Environmental Planning Policy
SIS	Species Impact Statement
TI SEPP	*State Environmental Planning Policy (Transport and Infrastructure) 2021*
WM Act	*Water Management Act 2000*

Executive Summary

The Proposal

The proposal relates to the upgrade of Randwick High School to facilitate a new combined administration and classroom building, and a lecture theatre (the activity). The school is located at 298 Avoca Street, Randwick and Part 90-98E Rainbow Street, Randwick.

The objective of the proposed Randwick High School upgrade works is to address the need for additional permanent facilities on site.

The proposed upgrade of Randwick High School includes the following:

- Tree removal;
- Demolition of the existing slab and servicing associated with Block A (South);
- Reconfiguration of an existing staff car park;
- Construction of a combined administration (ground floor) and permanent classroom building (first floor);
- Construction of a lecture theatre;
- Minor works to Block B;
- New pedestrian pathway connections;
- New fire hydrant enclosure;
- Service connections;
- Flood mitigation works; and
- Site landscaping works including replacement tree planting.

All figures and drawings included in this REF are indicative and subject to change as the design is finalised.

Planning Pathway

The proposal involves works by the Department of Education (the department) (a public authority) within the boundaries of the existing Randwick High School. Accordingly, pursuant to Section 3.37 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 activity, 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

Consultation will be 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).

Comments received will be carefully considered and responded to.

In addition, non-statutory consultation has already been undertaken with a range of community and government stakeholders throughout the design process.

Environmental Impacts

An Aboriginal Cultural Heritage Assessment prepared by Everick Heritage confirms the presence of Aboriginal sites within the proposed activity area. Two artefact sites located within the development footprint and identified to be of low scientific significance, will be impacted by the proposed activity. An Aboriginal Heritage Impact Permit (AHIP) will be sought following the determination of the proposed activity. The AHIP will be limited to the footprint of the identified sites and any works within its boundaries would need to be undertaken in accordance with the conditions of the future AHIP.

The site is impacted by flooding with impacts more pronounced within the southern portion of the school. A Flood Impact Assessment Report and Flood Evacuation Response Plan have been prepared to support the proposed activity. Finished floor levels have been designed to be flood-free in the 1% Annual Exceedance Probability flood event and the proposed activity will generate no unacceptable flood impacts to development surrounding the school.

A Detailed Site Investigation was prepared to assess soil conditions in support of the proposed activity which identified the localised presence of Asbestos and Polycyclic Aromatic Hydrocarbons (PAH) within Borehole (BH)109, detected in a layer of fill, directly below the concrete pavement. A Remediation Action Plan (RAP) has been prepared which will guide the excavation of four test pits in the vicinity of the original borehole location BH109, on an approximate 5 m grid. The RAP then stipulates the requirement to assess the need for further delineation, remediation or management of the identified contamination including the previously identified asbestos and PAH in soil at BH109. Subject to the implementation of the RAP measures the site can be made suitable for the proposed activity.

Other impacts have been considered as detailed in this REF.

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 development will not have any effect on Matters of National Environmental Significance 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, subject to the adoption and implementation of mitigation measures identified within this report and Appendix 1.

1. Introduction

The NSW Department of Education (the department) proposes upgrade works to the existing Randwick High School (the activity) located at 298 Avoca Street, Randwick and Part 90-98E Rainbow Street, Randwick (the site).

The proposed activity is necessary to improve the permanent educational facilities to satisfy the need generated by the recent integration of the former Randwick Girls High School and Randwick Boys High School to form Randwick High School.

This Review of Environmental Factors (REF) has been prepared by Barker Ryan Stewart on behalf of the department to determine the environmental impacts of the proposed upgrade of Randwick High School. 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. Proposed Activity

2.1 The Site

2.1.1 Site locality

The subject site comprises two street addresses; 298 Avoca Street, Randwick and Part 90-98E Rainbow Street, Randwick. The real property descriptions are Lot 1 DP 121453 and Part Lot 1738 DP48455.

The site is largely rectangular in shape with vehicular access provided from Rainbow Street in the south and Barker Street in the north. Pedestrian access is provided from the abovementioned roads, Avoca Street to the east and Fennelly Street to the west.

Staff parking is currently accommodated within three car parks; a car park accessed from Barker Street in the north west accommodating 100 spaces, a small car park accessed from Barker Street in the north east accommodating 3 spaces and a car park accessed from Rainbow Street in the south accommodating 43 spaces.

The site contains fifteen (15) permanent school buildings, as well as demountable classroom buildings, shade structures, covered walkways, and sporting facilities. Buildings are generally clustered in the northern and south-western portions of the site, reflecting the former Girls High School and Boys High School respectively, whilst the east is largely occupied by sporting fields and open spaces. The development footprint is located within the southern portion of the school to the south of the existing ovals with general orientation to Rainbow Street.

Trees are scattered throughout the southern fringe of the site with smaller canopy clusters located around existing school buildings and the car park accessed from Rainbow Street.

The locality of Randwick and Kingsford surrounding the site is primarily characterised by extensive low to medium-density residential development and educational and health infrastructure.

Development surrounding the site includes:

- **North:** Barker Street with low and medium density residential development and health infrastructure buildings further to the north.
- **West:** Rainbow Street Public School to the south west and a mix of medium – high density residential development and the existing State heritage listed BigStable Newmarket;
- **East:** Avoca Street with properties further to the east comprising low and medium density residential development.
- **South:** Rainbow Street with low and medium density residential development beyond.

The broader locality is identified in **Figure 1** and an aerial of the site provided in **Figure 2.**

Figure 1: Aerial Image of Locality (Nearmap, 5 June 2025)

Figure 2: Aerial Image of Site (Nearmap, 5 June 2025)

2.1.2 Site Photographs

The following photographs identify the development area and surrounds.

Photograph 1: Looking toward the proposed Administration Building Location from Existing Car park (Bennett and Trimble, 2025)

Photograph 2: Looking south west toward proposed development area (Bennett and Trimble, 2025)

Photograph 3: Looking north toward proposed landscaped entry to the site (Bennett and Trimble, 2025)

2.1.3 Site Constraints and Opportunities

Consideration of site constraints has been undertaken through a review of mapping under relevant Environmental Planning Instruments (EPIs), and a review of specialist consultant reports and other desktop assessments. Key site constraints include:

- Flooding;
- Aboriginal heritage; and
- Contamination.

Consideration has also been given to opportunities identified in project development, including:

- Orientation and setback of the new buildings;
- Interaction with existing built form; and
- Street access and accessibility through the existing school site.

2.2 Proposed Activity

The proposed upgrade of Randwick High School includes the following:

- Tree removal;
- Demolition of the existing slab and servicing associated with Block A (South);
- Reconfiguration of existing staff car parks;
- Construction of a combined administration (ground floor) and permanent classroom building (first floor);
- Construction of a lecture theatre;
- Minor works to Block B;
- New pedestrian pathway connections;
- New fire hydrant enclosure;
- Service connections;

- Flood mitigation works; and
- Site landscaping works including replacement tree planting.

Table 1 provides a summary of key aspects of the activity.

Table 1: Summary of the activity

Project Element	Description
Site Area	The fenced Randwick High School site has a total area of approximately 7.144 ha not inclusive of lot area associated with Rainbow Street Public School.
Project Name	Randwick High School Upgrade
Project Summary	• Tree removal; • Demolition of the existing slab and servicing associated with Block A (South); • Reconfiguration of existing staff car parks; • Construction of a combined administration (ground floor) and permanent classroom building (first floor); • Construction of a lecture theatre; • Minor works to Block B; • New pedestrian pathway connections; • New fire hydrant enclosure; • Service connections; • Flood mitigation works; and • Site landscaping works including replacement tree planting.
Use	Existing educational establishment
Student and Staff Numbers	No change proposed.
Car Parking and Bicycle Spaces	**Car parking** 146 existing. 114 proposed **Bicycle Spaces** – no change
Height	9.5m, RL48.5, two (2) storeys
Play Space	No change to established play space proposed.
Canopy Cover	1,800m^2 impacted as per the Ecological Assessment. Replacement tree planting at a ratio of greater than 1:1 is proposed within Landscape Plans.
Off Site Works	An existing driveway crossover providing access from Rainbow Street to the southern site car park will be removed as part of the proposed car park works. Works are limited to reinstatement of kerb within the Rainbow Street road reserve only.

The location of the proposed activity is demonstrated in the Site Plan extract in **Figure 3.**

Figure 3: Proposed Indicative Site Plan (Bennett and Trimble, 2025)

2.2.1 Design development

Built Form and Layout

Administration/ Classroom Building

The proposed administration and classroom building comprises a two storey built form with administration facilities at ground level and six (6) General Learning Spaces (GLS) located on the first floor. Access to the GLS spaces within the first floor is provided via stairs along the buildings eastern elevation.

Pedestrian connectivity is provided via first floor connections from the administration / classroom building to existing Blocks D, B, C and the proposed lecture theatre adjacent. The building will be located centrally within the southern portion of the site providing direct access from Rainbow Street to the new administration facilities at ground level.

A new landscaped forecourt provides a welcoming entry to the administrative frontage of the school from Rainbow Street. A pedestrian pathway and landscaping will be provided between the

new administration / classroom building and the streetscape with public reception entry provided within the south west corner of the building at ground level.

Lecture Theatre

The proposed lecture theatre comprises a two storey tiered built form, sited to the immediate north of the new administration / classroom building. Entry to the lecture theatre will be provided from the south east corner with two additional access points orientated to the north. Storage and amenities facilities are provided at ground level.

Block B Upgrades

Proposed access upgrades to existing Block B comprise of new stairs and a lift adjacent to the building's eastern elevation. Minor accessibility upgrades will also be provided to Block B's western elevation to raise the finished floor level of the entry door to ensure flood compliance with the 1% Annual Exceedance Probability (AEP) flood level.

Proposed covered walkways will be provide connectivity between the existing Hall within Block H to the new buildings and beyond to Block C.

The administration / classroom building benefits from indicative design elements that architecturally integrate with the existing school, refer to **Figure 4.** These indicative elements appropriately assist with scale, articulation and character.

Refer to **Figure 5** below which demonstrates the architectural merit of the indicative eastern elevation of the proposed lecture theatre as viewed from the existing sports courts.

Figure 4: Indicative view of new pedestrian entry and Administration & Classroom Building from Rainbow Street (Bennett and Trimble, 2025)

Figure 5: Indicative view of Administration & Classroom Building and Lecture Theatre (Bennett and Trimble, 2025)

A new fire hydrant pump room is proposed to be sited within the south eastern fringe of the site orientated to Avoca Street. The masonry enclosure (6m length, 3.5m width and 2.4m high) will provide weather protection for new fire service infrastructure upgrades necessary to service the site. Refer to **Figure 6** below which demonstrates the location and indicative design of the fire pump room structure adjacent to the eastern boundary to Avoca Street.

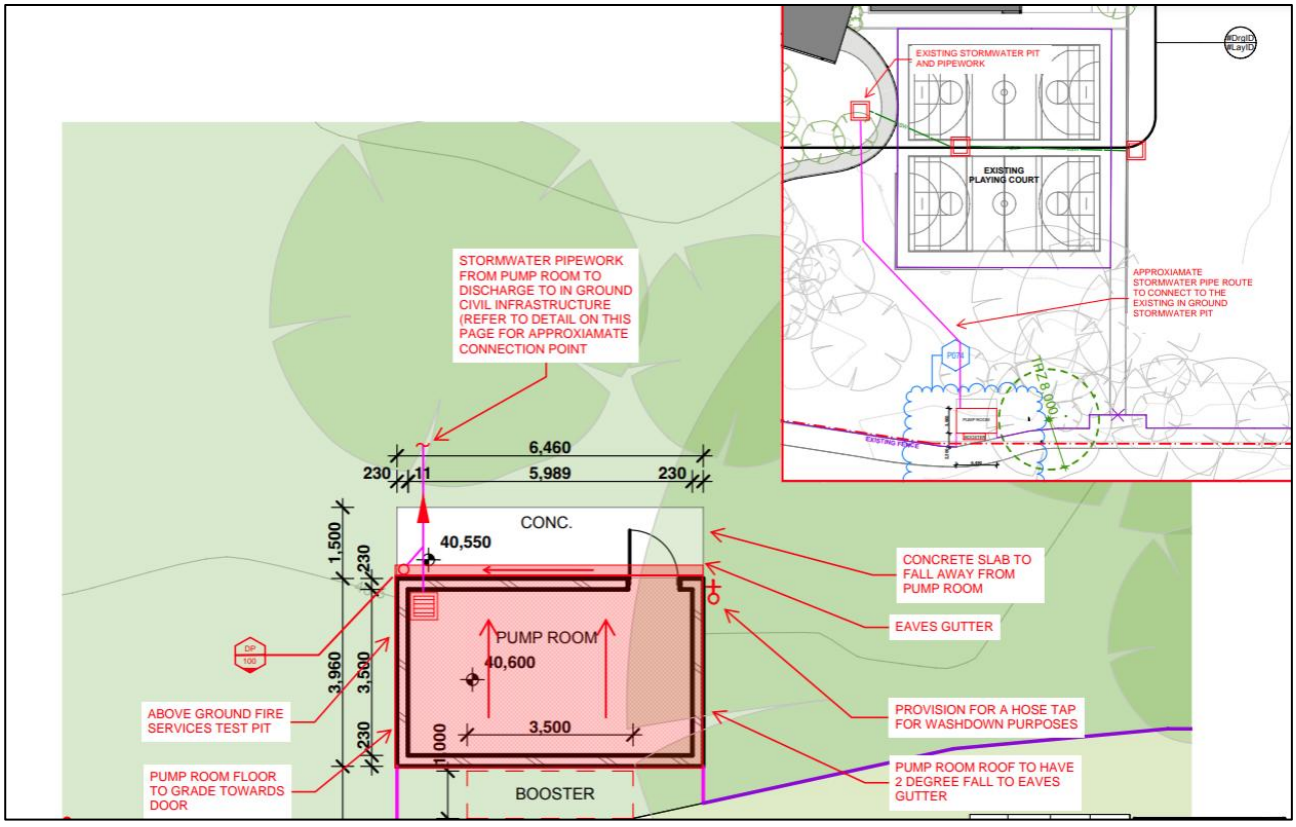


Figure 6: Indicative Fire Pump Room Design (ADP, 2025)

Design Guide and Design Quality Principles

A Design Report has been prepared for the proposed activity which demonstrates design compliance with the Design Guide and Design Quality Principles identified in TI SEPP. Refer to Table 2 below.

Table 2: Design Guide Review

Design Consideration	Project Response
Responsive to context	The proposed activity has been designed to sit comfortably within the existing buildings on the site and immediate proximity. The project will form a new entry to the school including a welcoming landscaped forecourt. Indicative colours and materials have been selected that respond to the existing built form, and use natural sand and ochre colours to reflect the landscape context.
Sustainable, efficient and resilient	The project has been designed to according to the SINSW Pattern book principles, using robust and durable materials. Operational strategies have been developed to accommodate identified flood risks on the site. The landscape design embeds the new buildings in a sequence of landscaped spaces that provide new green and permeable spaces to a campus that is currently characterised by large areas of concrete paving. Planting selections have ben sourced from local native species to increase the biodiversity of the site.
Accessible and inclusive	Accessible pathways from the public domain to the new buildings and on to the wider school have been included in the project design. The Pattern book standard hubs allow for flexible teaching and learning settings to accommodate a wide range of students with varying ages and developmental stages.
Healthy and safe	A secure school environment and open play space area has been developed as a part of the design, while maintaining a welcoming entry court to the school. There is no change proposed to existing connections to public transport options for travel to the school.
Functional and comfortable	The school has been designed following the principles of the SINSW Pattern book design that allows for flexibility in teaching and learning environments over the lifetime of the school. The proposed new works will not impact on the amenity of neighbouring properties.
Flexible and adaptable	The school has been designed following the principles of the SINSW Pattern book design that allows for flexibility in teaching and learning environments over the lifetime of the school.
Visual appeal	The project has been designed to form a new welcoming entry to the school on its southern boundary with a sculptural screen portico and buildings following the design of the SINSW Pattern book. The landscaped forecourt and open play spaces will provide a sequence of new gardens and gathering spaces that embed the new project within the school grounds.

Connecting with Country

No formal Connecting with Country consultation with Aboriginal representatives has been undertaken during the design development of the project.

Sustainability and Climate Change

A Sustainable Development Plan (SDP) has been prepared which identifies proposed ESD initiatives.

The development has been designed to achieve the 5 star Greenstar certification target. Key ESD commitments for the proposed development are listed below:

- Good access to natural daylight
- Well-designed openings to promote natural ventilation
- Appropriate construction and glazing selection
- Energy-efficient air-conditioning systems
- LED luminaires
- Rainwater recycle tank
- Efficient water fixtures
- Water-wise landscaping

Passive design initiatives such as performance glazing, shading and the use of insulation will reduce demand on mechanical air conditioning systems resulting in a reduction in energy consumption and greenhouse gas emissions.

A Net Zero Statement was also provided in the SDP which will be updated at detailed design stage to better calculate emissions. The proposed activity has been designed to be fossil fuel free and achieve relevant net zero requirements.

The SDP Report confirmed the following in relation to climate change adaptation:

> *In accordance with EFSG v1.0 DG02.08 Climate Change Adaptation and EFSG 2.0 0001c Design Checklist – Sustainability: 0.05 Climate Change Adaptation, an initial assessment of natural hazards and project vulnerability has been carried out in the previous phase of the project.*

A Climate Change Risk Adaptation Plan forms part of the SDP including a Climate Risk Matrix.

Landscaping

Landscaping and a new entry forecourt will integrate the new administration and classroom building, and the lecture theatre with existing school buildings to the north, east and west and Rainbow Street to the south. Landscape features are proposed as follows:

- New pedestrian path providing access from Rainbow Street to the landscaped forecourt and the proposed administration/ classroom building;
- Integration of landscaped planters and trees, shrubs and groundcover adjacent to new buildings and pedestrian pathways;
- New landscape green spaces adjacent to the administration building and lecture theatre;
- Native planting mix comprising the installation of semi mature trees primarily made up of the following species that will achieve a replacement planting ratio of greater than 1:1:
    - *Angophora costata (*Sydney Red Gum*);*
    - *Banksia integrifolia (*Coast Banksia*);*
    - *Eucalyptus robusta (*Swamp Mahogany*);*
    - *Hibiscus tiliacea (*Green Cottonwood*); and*
    - *Leptosporum petersonii (*Lemon Scented Tea Tree*).*

- Integration of a large number of shrubs and groundcover plantings.

An extract from the indicative Landscape Plan is provided below in **Figure 7**.

Figure 7: Indicative Landscape Plan (JMD Design, 2025)

Access and Parking

Primary pedestrian access will be provided to the school from Rainbow Street in the south of the site via a new pedestrian pathway.

Works will be undertaken within the existing southern car park accessed from Rainbow Street to reduce the number of driveways from two (2) to one (1), which will facilitate a single point of vehicle entry to the Rainbow Street car park. The proposed activity will also reduce the number of existing parking spaces from 146 to 110 (inclusive of two accessible spaces). Refer to **Figure 8** below which identifies the revised parking layout which accommodates the proposed administration / classroom building adjacent. Further analysis of parking is provided in Section 6.1.

No works are proposed to the existing northern car park accessed from Barker Street.

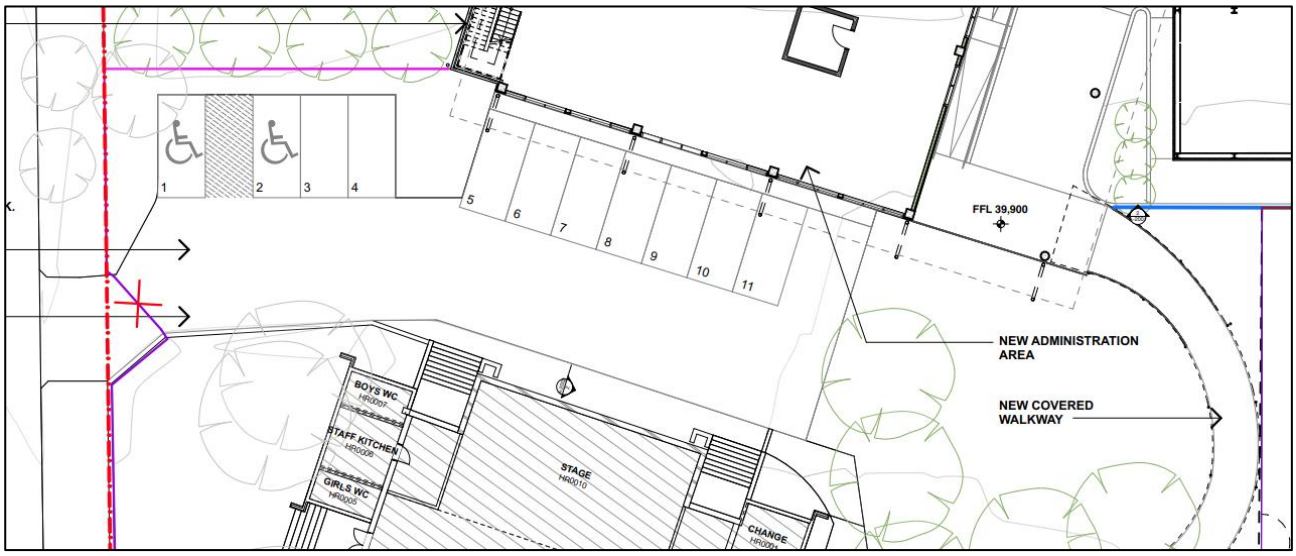


Figure 8: Extract from Site Plan identifying proposed indicative Rainbow Street car park modifications (Bennett and Trimble, 2025)

2.2.2 Construction

A Construction Environmental Management Plan (CEMP) will be prepared to detail the construction management of the site as per mitigation measures in **Appendix 1**.

Construction hours will be as follows:

- 7:00am to 6:00pm, Monday to Friday
- 8:00am to 1:00pm, Saturday
- No work without prior approval on Sundays and Public Holidays.

Demolition

Minor demolition works are proposed as follows:

- Partial demolition of the existing car park orientated to Rainbow Street;
- Removal of pedestrian pathways; and
- Demolition of the slab and servicing associated with Block A (South).

The proposed activity involves the demolition of the slab and servicing associated with Block A (South) which does not comprise nor is it contained within a State or local heritage item or associated curtilages. It is acknowledged that the definition of a local heritage item includes items on the State Heritage Inventory. The site contains two items on this inventory, both Sydney Water Section 170 registered assets. The curtilages of the two items (Coogee Randwick Outfall and Bird Gully Stormwater Channel) are defined in their s170 inventory listing information as being limited to the extent of its built fabric. In the case of Coogee Randwick Outfall this includes a maximum dimension of 6ft x4ft while the Birds Gully Stormwater Channel is reported to have a maximum dimension of 4 foot 6 inches x 3 feet 6 inches. As demonstrated in **Figure 9**, there is no overlap between these curtilages and the proposed demolition works.

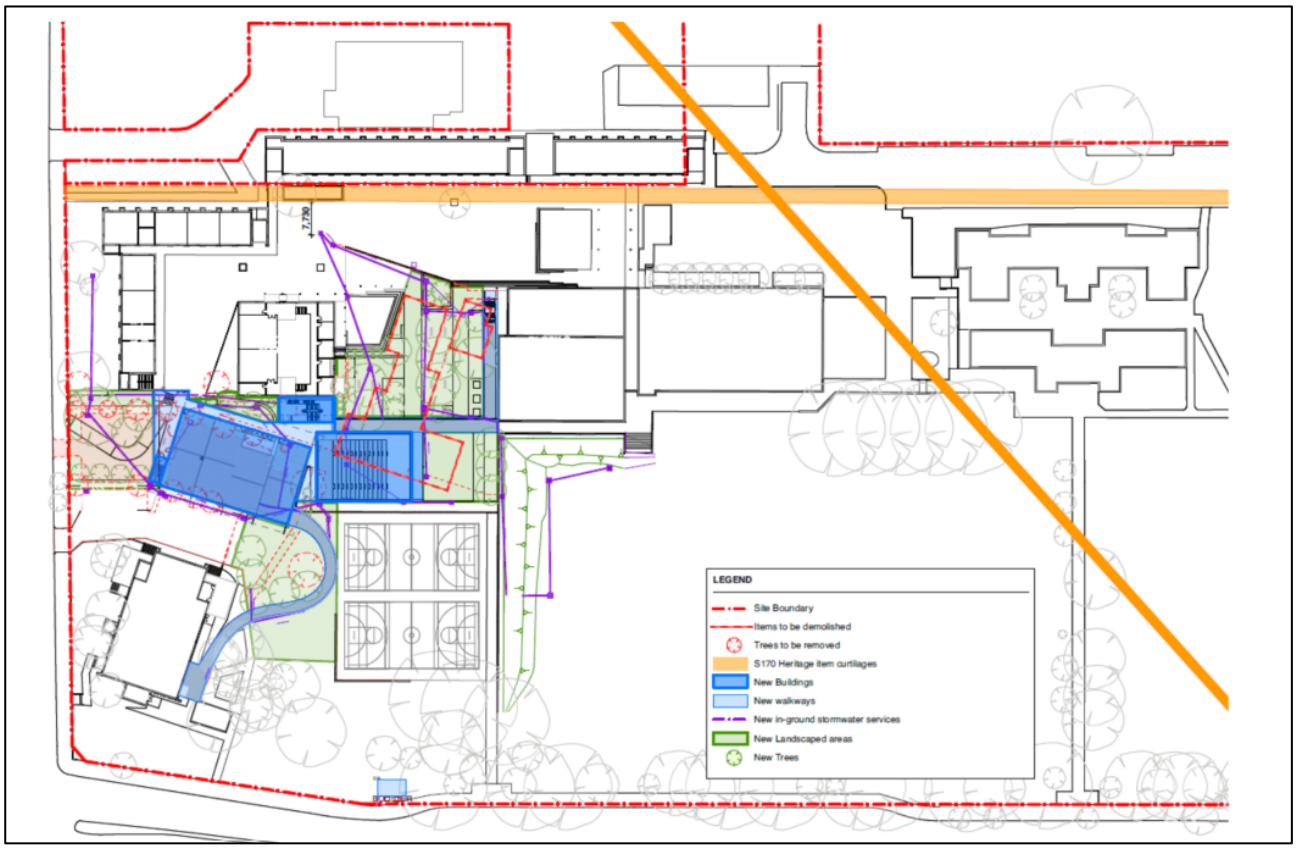


Figure 9: Indicative overview of Works Plan (Bennett and Trimble, 2025)

Earthworks

The site has been graded where possible to minimise bulk earthworks and removal of soil material from the site.

The earthworks associated with the proposed activity will result in -125m^3 cut and 1,150m^3 fill, with a total volume of +1,025m^3 of fill to be imported to the site.

Fill volume is largely attributed to the grading of the site to facilitate appropriate connectivity between existing and proposed buildings and the additional fill proposed within the south western corner of the existing oval for the purpose of flood mitigation.

Refer to the Earthworks Plan in **Figure 10** for further detail.

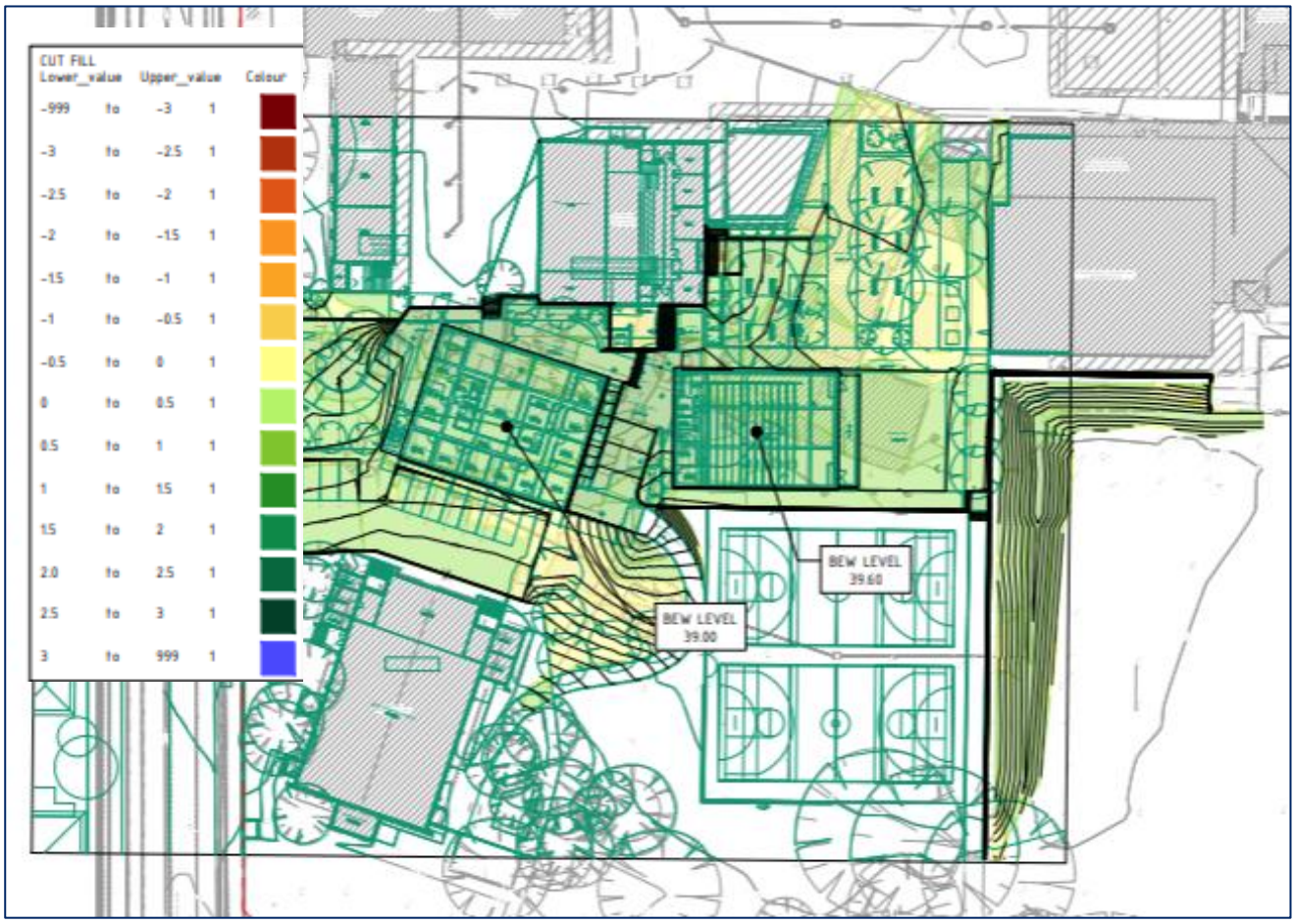


Figure 10: Indicative Earthworks Plan (BG&E, 2025)

Remediation

A Detailed Site Investigation (DSI) was prepared to assess soil conditions and determine if there is a need for site remediation, refer to **Appendix 6**. Opportunistic sampling was assessed from 10 boreholes (Borehole - BH101 to BH110) drilled in conjunction with the geotechnical investigation using a track-mounted drilling rig and hand tools to depths of between 1 m and 9.8 m below ground level.

Amosite asbestos was confirmed by laboratory analysis in soil samples collected at BH109. BH109 is located within the works footprint and the elevated Polycyclic aromatic hydrocarbons (PAH) and asbestos in BH109 was detected in a layer of fill, directly below the concrete pavement.

Recommendations around the remediation or management of the proposed delineation of soils is provided ion the Remediation Action Plan (RAP) attached in **Appendix 7**. The RAP confirmed that further assessment of the asbestos and PAH impacted soil at BH109 will comprise the following by a suitably qualified Environmental Consultant:

- *Excavate four test pits in the vicinity of the original borehole location BH109, on an approximate 5 m grid as shown in light blue on Drawing R.003.D003, Appendix A;*
- *Excavate a test pit at the original location of BH109;*
- *Sample the fill at the surface and then at 0.5 m depth intervals or at signs of contamination (i.e. odours, staining and/or asbestos etc.). The test pits will be extended to 0.5 m into*

observed natural soils, noting that the previously identified contaminants were found in the fill;
- *Conduct field sieving for asbestos containing material (ACM) in accordance with the WA DoH (2021) guidelines;*
- *Analyse recovered fill samples for asbestos (gravimetric AF / FA) and PAH;*
- *Compare the test results against the adopted RAC and SAC (refer to Section 12); and*
- *Assess the need for further delineation, remediation or management of the identified contamination including the previously identified asbestos and PAH in soil at BH109. Further delineation may be achieved by adopting additional test pits a further 5 m from the location to be delineated.*

Based on the existing data for the site, the technically viable remediation options comprise:

- Option 1: Excavation of the asbestos and PAH impacted soil, preparation of a waste classification report for the excavated soils, and off-site landfill disposal under that classification.
- Option 2: Relocate the asbestos and PAH impacted fill beneath the footprint of the proposed new building, capped with the proposed building hardstand (e.g. concrete slab), and, if required, managed in the long term under a long-term environmental management plan (LTEMP). In addition, this option will require an amendment to the asbestos register for the school to include the location and depth of asbestos impacted soil. This option is subject to Council endorsement and is considered to be a contingency option only should the delineation investigations or subsequent civil works identify a quantity of asbestos impacted soils that would make Option 2 most economically viable.

The proposed remediation is Option 1, excavation and landfill disposal.

Tree and Vegetation Removal

An Arboricultural Impact Assessment (AIA) was prepared to determine the impact of the proposal on trees. Twenty (20) trees, 15 of which are non-native, are proposed for removal due to unavoidable conflict with the proposed activity. The breakdown of retention value for these trees is provided as follows:

- 18 trees have been identified for removal with high retention value, and
- 2 trees have been identified for removal with medium retention value.

A review of the proposed activity confirmed that no additional tree removal will be required to facilitate the proposed flood mitigation works.

Landscape Plans demonstrate a replacement planting strategy which includes new native trees, shrubs and groundcover plantings.

Utilities and Services

Stormwater Management

An existing stormwater network is present within the school, with an established pit and pipe network connecting to Council's stormwater infrastructure along Rainbow Street.

Figure 11 demonstrates the stormwater works proposed and includes the following:

- Upgraded pit and pipe network to manage stormwater discharge from the roofwater of the new buildings and covered walkways;

- Pit and pipe network to be extended into the existing oval to better manage overland flows entering the oval from the north / north east; and
- The new pit and pipe infrastructure will ultimately drain into the existing stormwater management network within the site which discharges to Rainbow Street in the south.

The proposed stormwater design incorporates the following water quality measures:

- Silt arrestors to be provided within stormwater drainage infrastructure to facilitate treatment prior to the stormwater entering Council's system.

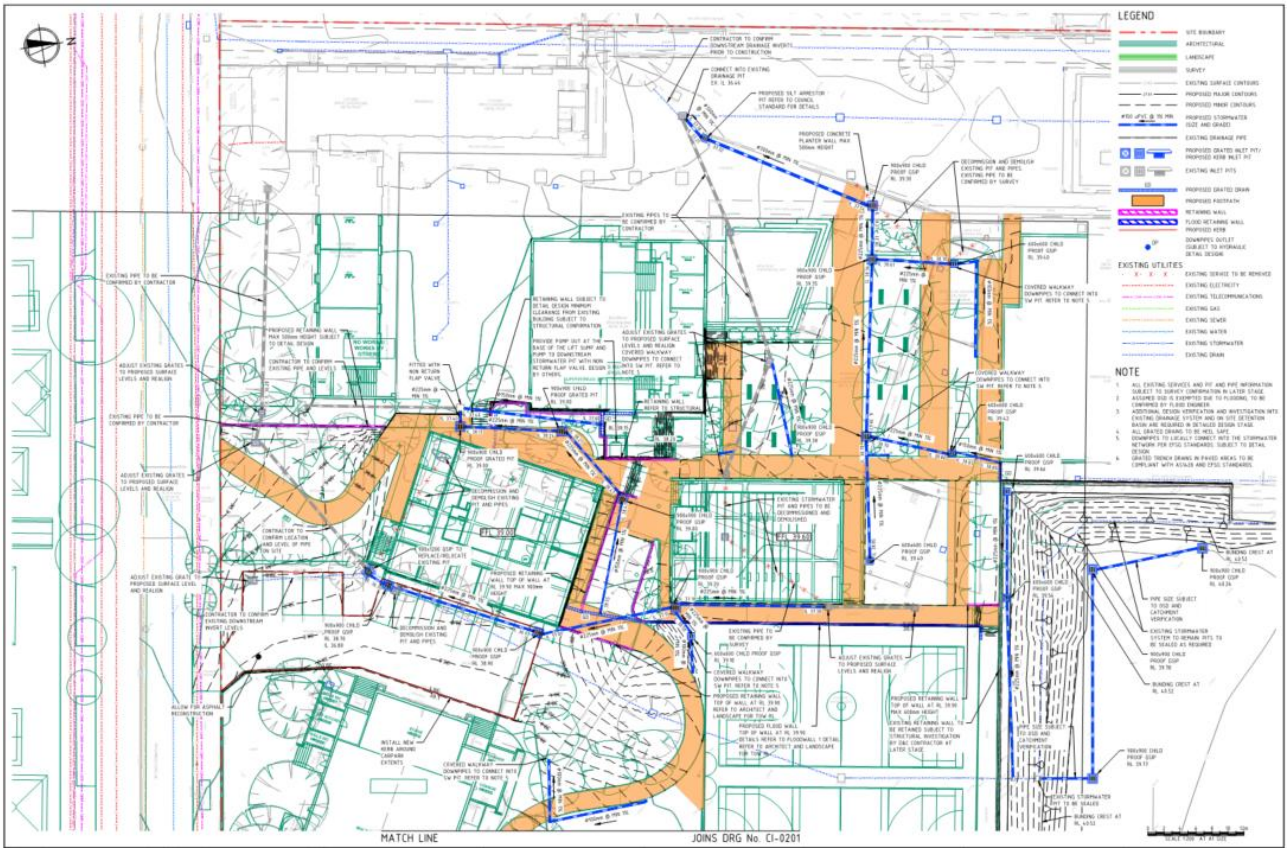


Figure 11: Indicative Siteworks and Drainage Plan (BG&E, 2025)

Water, Sewer and Gas

The key utility and service requirements relevant to the proposed activity are as follows:

- Sewer and Water: Augmentation subject to Section 73 application.
- Gas: No gas connection proposed for the activity.

Electrical and Telecommunications

An Electrical Utilities Report confirmed that, based on the preliminary load calculations of the proposed activity, the works will require a new three-phase power supply of ~109 kVA (158 Amps/phase). The existing electrical supply to the site has been considered and has sufficient capacity for the expansion. Likewise, the existing Main Switch Board has sufficient capacity for the upgrade.

Waste Management

The proposed activity will not facilitate any changes to existing students or staff. Waste generated within the new buildings will be transferred to the existing bulk waste bins for private contractor collection as per the existing arrangement.

Demolition and construction activities at the site will generate a range of construction and demolition (C&D) waste. All construction materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse or recycling processes. Options for reuse, disposal and recycling of C&D waste were identified in the Waste Management Plan (WMP) prepared for the proposed activity (e.g. return to manufacturer, recycled at C&D processor, or disposed to landfill if contaminated). The Contractor and their Project Manager will be responsible for the C&D elements of the WMP, including preparation of waste documentation and processes during the excavation and construction phases of the development.

Staging

The proposed activity does not include any staged activities.

2.2.3 Operation

The proposed activity will not facilitate any increase to students or staff at the site.

2.3 Related activities

The department is currently undertaking the following separate works packages within the site to facilitate internal refurbishments and to facilitate the co-educational school requirements:

- Works Package 1 to facilitate the co-educational integration of Randwick Boys and Girls High Schools (now complete); and
- Works Package 2 – additional refurbishment works to improve facilities (ongoing).

Works Package 2 will be programmed to minimise any cumulative impacts on the site or surrounding development.

These works do not form part of the proposed activity subject to this REF and will not combine to generate cumulative impact to the school operations or surrounding development.

3. Proposal Need and Alternatives

3.1 Proposal Need

Proposal need has been identified by the department as follows:

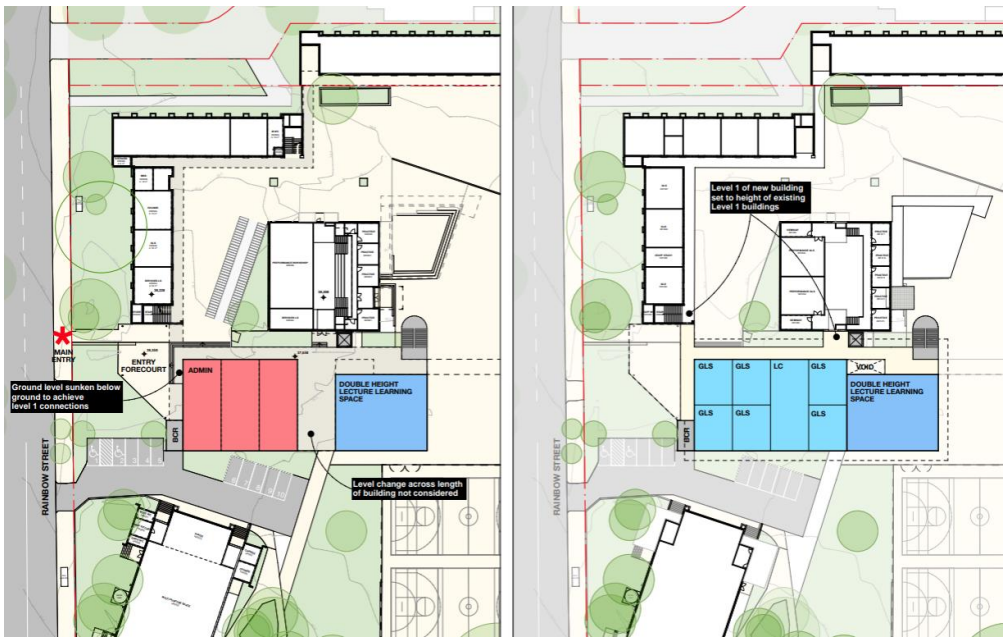
- Demand is evident for additional facilities, including a more formal administrative frontage to the site to support the co-educational school;
- Permanent built form additions, including the lecture theatre, are necessary for the delivery of the curriculum; and
- Improvement/ upgrade of teaching facilities.

3.2 Alternatives

The proposed activity has been developed following consideration of options and alternatives to address the need identified above. A summary of the options considered is provided in Table 3.

Table 3: Assessment of Options and Alternatives

Option	Discussion	Preferred Option
Option 1: The Proposed Activity	**Advantages** • Readily achieves the desired project objectives. • Gives rise to no unacceptable impacts as defined in this REF and has been comprehensively designed to manage flood risk within the site. • Provides educational spaces that future proof the school. • Appropriately satisfies the demand for new administration and lecture theatre facilities. **Disadvantages** • No identified disadvantages given environmental impacts, including flooding, have been appropriately mitigated and the works will not give rise to any unacceptable impacts. • Loss of parking within the existing car park accessed from Rainbow Street.	Option 1 is preferred due to the established demand for the new buildings and will generate no significant or unacceptable environmental impacts. The temporary loss of parking has been addressed via a mitigation measure requiring replacement parking to be implemented prior to the occupation of the new buildings. Locations have been identified on site for future replacement parking that can be facilitated via a separate planning approval package.
Option 2: Alternate Design	Alternate options were evaluated at Masterplan stage where a more linear north-south alignment was considered for a combined administration / classroom building and lecture theatre – see Figure 12. Refer to the extract from the original masterplan design below. **Advantages** • No significant advantages.	Option 2 is not preferred as it does not address the increased flood risk to life or property.

Option	Discussion	Preferred Option
	Disadvantages • Was not an appropriate outcome for the site in relation to flooding and was deemed to exacerbate flood issues within the development footprint and surrounding development.	
	 **Figure 12: Indicative Architectural Options Plan (Bennett & Trimble, 2025)**	
Option 3: Do Nothing	**Advantages** • No disruption to existing school operations. • Retains existing car parking. **Disadvantages** • Does not address established demand for the new facilities. • Does not future proof the site.	Option 3 is not preferred as it does not address the identified need for intervention at the site.

4. Statutory and Strategic Framework

4.1 Permissibility and Planning Approval Pathway

State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP) 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 4.

Table 4: Description of Proposed Activities under the TI SEPP

Division and Section within TI SEPP	Description of Works
3.37	The proposed activity comprises construction, operation or maintenance on behalf of a public authority within the boundaries of an existing or approved government school, including: • Administration building (Section 3.37(1)(a)(i)); • Permanent classroom (Section 3.37(1)(a)(iii)); and • Security measures, including fencing (Section 3.37(1)(d)). The proposed activity involves the construction of two buildings with a maximum height of two storeys which is less than the four storey limit prescribed in the TI SEPP. In accordance with the requirements of Clause 3.37(5), the development constitutes 'construction works' which, in accordance with the provisions of Clause 3.3(3), facilitate the removal of vegetation and associated rectification and landscaping works as 'development without consent'. The Design Quality Principles in Schedule 8 of the TI SEPP and the Design Principles in the Design Guide for Schools have been considered as set out in Section 2.2.1.
3.37A	N/A
3.38	Section 3.38 of TI SEPP sets out notification requirements to the local Council and occupiers of adjoining land. Written notice of the intention to carry out the activity will be provided to Council and neighbours before the activity is determined. Any response received within 21 days of the notice will be considered by the department.

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.

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.

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 6 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 6.

4.2 Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the EPBC Act do not affect the proposal as it is not development that takes place on or affects Commonwealth land or waters. Further, it is not development carried out by a Commonwealth agency or development on Commonwealth land, nor does the proposed development affect any matters of national significance. An assessment against the EPBC Act checklist is provided at Table 5.

Table 5: 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
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

4.3 Other Approvals and Legislation

Table 6 identifies any additional approvals that may be required for the proposed activity.

Table 6: Consideration of other approvals and legislation

Legislation	Relevant?	Approval Required?	Applicability
State Legislation			
National Parks and Wildlife	Yes	Yes	A Preliminary Indigenous Heritage and Impact Assessment (PIHAI) was prepared to identify the potential for Aboriginal

Legislation	Relevant?	Approval Required?	Applicability
Act 1974			cultural heritage to be affected by the proposed upgrade works. The report identified that an area of Potential Archaeological Deposit (PAD) was present across the greater site and that test excavation was required. The National Parks and Wildlife Act 1974 (NSW) (NPW Act) provides statutory protection to all Aboriginal places and objects. Test excavations in accordance with the Code of Practice (DECCW 2010) were therefore undertaken over 10 days in April 2025 to further investigate the potential archaeological deposits. A total of 5 subsurface artefacts divided between a low-density artefact scatter to the north of the project area, Randwick HS AS-1(45-6-4159), and two isolated artefacts to the south, Randwick HS IA-1 (45-6-4158) and Randwick HS IA-2 (45-6-4157). All three sites were assessed as being of low scientific significance. In order to undertake a proposed activity which is likely to involve harm to an Aboriginal object or Aboriginal Place it is necessary to apply to Heritage NSW (Department of Climate Change, Energy, the Environment and Water [DCCEEW]) for an Aboriginal Heritage Impact Permit (AHIP). The AHIP process will be initiated for impact to the sites following determination of the Part 5 Activity. The proposal will not affect a NSW National Park.
Rural Fires Act 1997	No	No	The site is not identified as bushfire prone land and further consideration of the Rural Fires Act is not required.
Water Management Act 2000	No	No	The proposed development is not located within 40m of a watercourse or coastline. As such, further consideration of the WM Act 2000 is not required.
Biodiversity Conservation Act 2016	Yes	No	The *Biodiversity Conservation Act 2016* (BC Act) commenced on 25 August 2017 and repealed the *Threatened Species Conservation Act 1995, Nature Conservation Trust Act 2001* and *Native Vegetation Act 2003*. Under the BC Act, Section 7.8 applies to Part 5 Activities. The site does not contain mapped NSW Biodiversity Values and an Ecological Assessment confirmed that the site does not accommodate critical habitat, threatened species or contain an ecological population or community. Further, the assessment confirmed the proposal will not affect threatened flora or fauna or critical habitat and the development does not trigger the need for a Biodiversity Development Assessment Report (BDAR) or entry into the Biodiversity Offsets Scheme.
Heritage Act 1977	Yes	No	The site is not State heritage listed. One State heritage item

Legislation	Relevant?	Approval Required?	Applicability
			(BigStable Newmarket - SHR 00388) is located 110m to the north east of the works footprint outside the school lot boundaries. No impact to SHR 00388 will be generated by the proposed activity as determined in the Heritage Impact Assessment noting that views to the works footprint from the BigStable Newmarket are already obscured by existing school buildings. The site is not listed under the NSW Department of Education's Section 170 heritage register, however the Heritage Impact Assessment confirmed that two items listed on the Sydney Water s170 Heritage and Conservation Register are located partially within the grounds of the high school, being the Birds Gully Stormwater Channel No 10 (SHI 4574209) and the Coogee Randwick Outfall (SHI 4570801). Both of these items are sub-surface, with the curtilage of these items not extending across the development footprint. The Heritage Impact Statement identifies a buffer distance from the works footprint to the Section 170 items as follows: • Birds Gully Stormwater Chanel – 7.73m; and • Coogee Randwick Outfall – 58m.
Fisheries Management Act 1994	No	No	The proposed development will not result in any obstructions to tidal patterns or flows nor will it harm marine vegetation.
Contaminated Lands Management Act 1997	Yes	No	The site is not listed on the register for Contaminated Lands. Appropriate contamination assessments have been undertaken and are considered in this REF.
Protection of the Environment Operations Act 1997	Yes	No	The activity will not result in significant air, noise, water or waste pollution and an environment protection licence is not required.
Roads Act 1993	No	No	The proposed activity will not facilitate an increase in students however works are proposed within the Rainbow Street road reserve to reinstate the kerb following decommissioning of an existing vehicle crossover to the site. Section 138 approvals will be sought to facilitate these works from Transport for NSW noting that Rainbow Street is a Classified Road.
Mine Subsidence Compensation Act 1961	No	No	The site is not located within a Mine Subsidence District.
Environmental Planning and Assessment Regulation 2021 (Section	No	No	The site is not located within a regulated catchment.

Legislation	Relevant?	Approval Required?	Applicability
171A			
State Legislation – State Environmental Planning Policies			
State Environmental Planning Policy (Planning Systems) 2021	No	No	The site is not owned by an Aboriginal Land Council. The works are to be undertaken as 'development without consent' and do not constitute State or Regionally Significant Development.
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Yes	No	**Chapter 2 - Vegetation in non-rural areas** Chapter 2 applies to the site and tree removal is assessed in this REF. The proposed vegetation removal does not exceed the biodiversity offsets threshold and approval of the Native Vegetation Panel is not required. **Chapter 3 – Koala Habitat Protection 2020** Not applicable – site is not located within RU1 – RU3 land. **Chapter 4 - Koala Habitat Protection 2021** Not applicable – Randwick LGA is not identified as a koala management area in Schedule 2. **Chapter 6 – Water Catchments** The site is not located within a regulated catchment.
State Environmental Planning Policy (Sustainable Buildings) 2022	Yes	No	Chapter 3 is applicable given the works comprise the erection of new buildings which exceed the $5 million trigger. The proposed development is consistent with the controls identified in Section 3.2 as follows: • The construction waste component of the WMP demonstrates the proposed minimisation of construction waste through measures which prioritise recycling and re-use over waste disposal. • Passive design principles have been incorporated in the design, including high-performance building envelope, appropriate building orientation, and natural ventilation openings to support comfortable and low-energy indoor environment quality. • The design of the proposed buildings have evolved to address daylight considerations to better facilitate natural light and amenity for students and staff. The provision of appropriate glazing and windows will reduce the reliance on

Legislation	Relevant?	Approval Required?	Applicability
			artificial lighting. Assessments provided in the ESD Report further identify the merits of the proposal in relation to passive design. • Energy consumption will be appropriately metered in accordance with Greenstar requirements, and the department's Sustainability Team will undertake scheduled monitoring to advise on usage and options for any reductions. Further to the analysis above, a Net Zero Statement has been prepared to demonstrate the targeted reduction in fossil fuel usage on site in accordance with NSW government requirements.
State Environmental Planning Policy (Resilience and Hazards) 2021	Yes	No	**Chapter 2 – Coastal Management** The site is not located within a coastal area and consideration of the controls in Chapter 2 is not required. **Chapter 4 – Remediation of Land** A Remediation Action Plan (RAP) has been prepared and attached in **Appendix 7**. The preferred remediation option comprises the delineation of soils within Borehole BH109 to determine the need for off site landfill disposal of Asbestos and Polycyclic Aromatic Hydrocarbons (PAH). Douglas Partners has confirmed that the proposed Option 1 remediation works outlined in the RAP do not trigger any Category 1 requirements in Section 4.8 of the Resilience and Hazards SEPP. Remediation works will therefore be undertaken as Category 2 works that do not require development consent. Mitigation measures relating to the implementation of the RAP are provided in **Appendix 1**.
State Environmental Planning Policy (Industry and Employment) 2021	No	No	No additional signage proposed.
State Environmental Planning Policy (Transport and Infrastructure) 2021 – Chapter 2	Yes	No	The site adjoins Avoca Street in the east and Rainbow Street in the south which are both Classified Roads. Whilst no additional students or staff are proposed, further assessment of Chapter 2 is required and provided under headings below. **2.119 – Development with frontage to a Classified Road**

Legislation	Relevant?	Approval Required?	Applicability
			and 2.120 Impact of road noise or vibration on non-road development The proposed works footprint is centrally located within Randwick High School approximately 80m to the west of Avoca Street and 22m to the north of Rainbow Street. The proposed activity does not seek to facilitate any new vehicle access points from a Classified Road nor will the new buildings be sited in a location that could compromise the effective and ongoing operation of Avoca Street or Rainbow Street. The proposed activity will not generate smoke or dust that could impact the Classified Roads and the works will not impact the nature, volume or frequency of vehicles using the classified roads to gain access to the land. An assessment of road noise impact on the proposed activity has been provided within the Noise and Vibration Impact Assessment (NVIA). The NVIA confirmed the following minimum sound insulation performance requirements must be implemented to address noise emissions from Avoca Street: • *External glazing of the administration and teaching building facing east and north is to provide a minimum sound reduction index of RW35 to achieve the internal noise level criteria.* This recommendation has been included in the mitigation measures attached in **Appendix 1**. **2.122 – Traffic generating development** The proposed activity does not facilitate an increase in parking nor will it facilitate an increase in students or staff numbers. The development will not facilitate an additional 50 or more vehicles per hour and does not trigger notification as identified in Chapter 3 of the TI SEPP.

4.4 Strategic Plans

Table 7 considers strategic plans that are relevant to the proposed activity.

Table 7: Consideration of applicable Strategic Plans

Strategic Plan	Assessment

A Metropolis of Three Cities – The Greater Sydney Region Plan	The proposed educational infrastructure upgrades align closely with the objectives of Chapter 3 – *Infrastructure and collaboration* – of the Region Plan as follows:
	• Objective 2 – *infrastructure aligns with forecast growth*: The proposed development has been refined through an ongoing options and masterplan analysis process to ensure that the preferred design can deliver tangible benefits for the community.
	• Objective 3 – *infrastructure adapts to meet future needs*: the design development has been guided by sustainability professionals that have facilitated design compliance with key Greenstar and NSW EFSG sustainability metrics. The development has been designed to accommodate the needs of students, staff and the community as follows:
	  ○ The administration / classroom building and lecture theatre will satisfy the long term demand for facilities that can be adapted to suit the curriculum and changing school operational needs.
	  ○ The lecture theatre can facilitate shared use with an adaptable design rationale adopted suitable for a diverse range of activities.
	• Objective 4 – *Infrastructure use is optimised*:
	  ○ A comprehensive options analysis confirmed the proposed activity represents the most effective means of achieving the established demand requirements for the site. The design of the built form will minimise the development impact on existing play space and vegetation. Further the proposed site design was considered to be the optimal solution to address flood constraints within the site.

Our Greater Sydney 2056 - Eastern City District Plan	The proposed activity is consistent with Planning Priority E1 which seeks to provide 'planning for a city supported by infrastructure'. The upgrades to Randwick High School will ensure that educational facilities can accommodate demographic changes and future proof the school with permanent infrastructure for staff and students. The contemporary design of the proposed activity will help provide increased flexible learning spaces and assist in creating additional educational opportunities for the local community.
Randwick Local Strategic Planning Statement 2040	The activity is consistent with the Randwick Local Strategic Planning Statement. Replacement tree planting within the site with

Strategic Plan	Assessment
	native species aligns with Planning Priority 16 which seeks to increase tree canopy cover within the LGA. Infrastructure delivery is one of the core themes of the LSPS. Planning Priority 22 seeks to 'align planned growth with infrastructure delivery'. The upgrades to Randwick High School directly align with this priority as the activity seeks to provide upgraded educational infrastructure to accommodate the local population.

5. Consultation

5.1 Early Stakeholder Engagement

Table 8 provides a summary of early stakeholder (non-statutory) consultation already undertaken to inform project development and preparation of the REF.

Table 8: Summary of Early Stakeholder Engagement

Stakeholder	Engagement
Randwick City Council, TfNSW, Consultant Transport Engineers (Stantec) and NSW Department of Education as part of the Transport Working Group (TWG)	A TWG meeting was held on 11/03/2024 which included a presentation overview of the proposed upgrade work and identification of target program dates. The Rapid Transport Assessment was presented to identify baseline data including transport mode share statistics for students and staff, discussion of catchment area and locality constraints for active transport and commitments around integration of a School Travel Plan (STP) to increase uptake of active transport methods to and from the site. Additional pedestrian crossing phase and cycleways/walking infrastructure were discussed in addition to the review of buses serving at the school and the plans to facilitate a co-educational integration of the former Boys and Girls High Schools which is now complete.
Weekly Project Management Group (PMG) meetings including technical consultants and NSW Department of Education	Ongoing weekly PMG meetings (held via Microsoft Teams) were chaired by consultant Project Managers (RPS). Meeting minutes were distributed weekly with actionable tasks identified for the PMG and consultants.
Weekly Design Meetings including Architects, technical consultants and NSW Department of Education	Weekly design meetings (held via Microsoft Teams) were chaired by Bennett and Trimble Architects with a Design Meeting Minutes used to document actions, responsibilities and follow up comments.
Project Reference Group (PRG) participation from School Principal, Director of Education Leadership (DEL), SINSW AMU and RHS P&C Rep, other project team members.	PRG No. 4 held June 2024 PRG No. 5 held 25/10/2024 PRG No. 6 held 14/03/2025 PRG No. 7 held 29/05/2025
Project Control Group (PCG) participation from SINSW-Development Planning & Delivery, School Principal, Director of Education Leadership (DEL), SINSW and AMU, other project team members.	PCG No. 5 held 25/10/2024 PCG No. 6 held 13/11/2024 PCG No. 7 held 19/03/2025 PCG No. 8 held 20/06/2025

5.2 Statutory Consultation

Consultation will be undertaken in accordance with statutory requirements under the TI SEPP and having regard to the SCPP DPHI and the SCPP DoE. This includes:

- sending notices to surrounding neighbours, owners and occupiers inviting comments within 21 days
- sending notices to the local council and relevant state and commonwealth government agencies and service providers inviting comments within 21 days
- making the REF publicly available on the Planning Portal throughout the consultation period.

Comments received will be carefully considered and responded to.

6. Environmental Impact Assessment

6.1 Traffic, Access and Parking

6.1.1 Operational Traffic, Access and Parking

A Transport Impact Assessment (TIA) has been prepared to assess the proposed activity and identify appropriate measures to mitigate impacts relating to traffic and parking (see **Appendix 8**). It should be acknowledged that the proposed activity will not facilitate an increase in student or staff numbers utilising the site and therefore no change to parking requirements within the site.

Noting that the proposed activity will not alter student / staff numbers, key findings are summarised below in relation to the existing environment:

- Key intersections in the vicinity of the site include Avoca Street / Rainbow Street (signalised intersection), Avoca Street / Barker Street (signalised intersection) and Barker Street / Botany Street (signalised intersection).
- Randwick Light Rail Stop is located approximately 550-metre walking distance from the site (approx. 8-minutes' walk) which provides connections to Circular Quay via Sydney CBD, Moore Park and Surry Hills. The station provides a high frequency service, with services departing every 7 minutes during peak periods.
- Randwick High School is serviced by several bus stops located directly outside its boundary along Rainbow Street, Avoca Street, and Barker Street. Along the school boundary, there is a 350-metre-long bus zone on Avoca Street, a 35-metre bus zone on Rainbow Street, and another 22-metre bus zone also on Rainbow Street. Two additional bus zones, each approximately 20 metres in length, are situated on the south-eastern and north-eastern sides of Avoca Street.
- The site is currently well serviced by existing footpaths along both sides of the surrounding roads, particularly towards the Randwick Light Rail Stop. The level of pedestrian amenity within the surrounding road network is good, with pedestrian infrastructure (footpaths, kerb ramps, street crossings) complemented with tree planting and street lighting.
- Off-street parking is currently provided for 43 vehicles via Rainbow Street. Two additional off-street parking areas accessed from Barker Street accommodate 100 vehicles in the north west of the site and 3 vehicles in the north east. Combined, the site provides parking for up to 146 vehicles. These car parks are designated for staff use only.
- The school currently accommodates parking for 70 bicycles which far exceeds the 45 space requirement (3% of students) stipulated in the TIA. Mitigation measure OPTMM2 has been provided to ensure that a minimum of 45 bicycle spaces are to be retained within the site.

To facilitate the construction of the new administration/ classroom building within an appropriate location in the south of the site the works result in a reduction from 43 to 11 spaces within the existing car park accessed from Rainbow Street. No changes are proposed to the existing car parks accessed from Barker Street which will continue to accommodate 103 spaces. The proposed activity will therefore facilitate a total of 114 spaces within the site.

In order to address the loss of parking associated with the proposed activity, mitigation measure OPTMM18 has been implemented to ensure that 146 spaces will be provided within the site prior

to occupation of the proposed administration/ classroom building and the lecture theatre. This outcome will result in no net loss to parking and ensure that the proposed activity will not impact on-street parking external to the school site. Site investigations are currently being undertaken to document the design of the replacement parking within the site and these works will likely be assessed independently of the proposed activity. Note the interim loss of parking during construction has been assessed within the TIA and discussed under 6.1.2 below.

The delivery of the school upgrade will be supported by the School Transport Plan, Travel Access Guide (TAG) and supporting operational guidance on the correct and appropriate use of the pick up / drop off areas.

No disruptions to the access of surrounding private properties will be generated by any operational changes to the site in relation to traffic, parking and access.

6.1.2 Construction Traffic, Access and Parking

A Construction Traffic and Pedestrian Management Plan (CTPMP) has been prepared within the TIA to provide guidance on the management of vehicle, cyclist and pedestrian movements during construction works. Local access to adjacent properties will be maintained throughout all times during the construction works.

The CTPMP confirmed that construction worker parking will not be provided due to limited space on site. Informal public parking is available on surrounding local streets such as Avoca Street and Rainbow Street however, workers are advised to catch public transport where possible. The proximity of the Randwick Light Rail Stop, and various surrounding bus services makes the site accessible via public transport.

The CTPMP identified that on-site parking will be reduced to 103 spaces during construction noting that the southern car park accessed from Rainbow Street will not be operational within this period. Mitigation measure CMMM18 has been provided to support alternative transport operations at the school via a management plan during this period with a focus on carpooling and the promotion of public transport usage. The strategies identified within the plan will aim to ease pressure on parking facilities and appropriately support staff mobility until construction is complete.

The CTPMP confirmed that all loading is expected to be undertaken within the site area. All service vehicles must enter and exit the site in a forward direction from one ingress / egress point on Rainbow Street. If a work zone is required following review by the construction contractor at construction stage a Works Zone application will need to be submitted to Transport for NSW for any obstruction of Rainbow Street.

Pedestrian access to the construction site will be restricted by site fencing and hoarding. Directional signage will be provided to guide pedestrians around the construction site, and access to adjacent operational buildings will be maintained. Traffic controllers will be stationed at the site access driveway to guide construction vehicles during entry and exit operations.

Mitigation measure CMM17 stipulates the requirement for the contractor to prepare a detailed CTPMP upon engagement which will include site/ development specific risk assessments and schedules for construction.

6.1.3 Traffic, Access and Parking Mitigation Measures

This REF and accompanying reports conclude the activity is not likely to have significant environmental impacts in relation to traffic, access and parking during construction and operations subject to implementation of the DoE standard Mitigation Measures and project specific mitigation measures in Table 9.

Table 9: Traffic, Access and Parking Mitigation Measures

ID	Mitigation Measure	Timing
CMM17	A detailed CTMP is to be prepared upon engagement of a contractor for the works. The CTMP should include: • site-specific risk assessment for managing construction traffic during primary school hours. • specified routes for construction vehicles. • accredited traffic controllers will be provided where pedestrian or cyclist routes are affected • outline a schedule of worker, start and finish times and demonstrate that this does not have any significant impact on local traffic activity.	Construction
CMM18	An alternative transport operation program will be implemented to encourage staff to use alternative travel modes during the school's construction phase. This initiative will be communicated internally to help minimise the impact of temporary parking loss. Measures include: • Carpooling Program: An internal communications page will be established to identify where staff are travelling from and to facilitate carpooling arrangements. This will help increase vehicle occupancy and reduce overall demand for parking. Staff participating in the program will be allocated priority parking spaces on site to encourage uptake. • Public Transport Promotion: Staff will be encouraged to use public transport options where feasible. Information on nearby bus and train services, including timetables and route maps, will be made available to assist with planning.	Construction
OPTMM2	Provide bicycle parking for students to meet moderate mode share targets. This is equivalent to 45 bicycle parking spaces to be maintained within the site.	Prior to the commencement of Operations of the new Administration/ Classroom Building and Lecture Theatre

ID	Mitigation Measure	Timing
OPTMM3	A total of 146 parking spaces must be provided within the site prior to the occupation of the new Administration/ Classroom Building and Lecture Theatre.	Prior to the commencement of Operations of the new Administration/ Classroom Building and Lecture Theatre

6.2 Noise and Vibration

A Noise and Vibration Impact Assessment (NVIA) has been prepared to assess the operational and construction noise and vibration impacts associated with the proposed upgrade of the site. Refer to separate headings below which detail the assessments of construction and operational impact.

Long term noise monitoring was undertaken with a noise logger located within the south eastern fringe of the site close to the corner of Rainbow Street and Avoca Street, refer to the location identified as ‘L1’ at **Figure 13**. This location was deemed to be representative of the typical ambient and background noise levels including road noise. The monitoring established key background noise levels that were then used to assess potential impacts. Short term monitoring was also undertaken within two locations identified below as ‘S1’ to guide design development and the mitigation measures for the project.

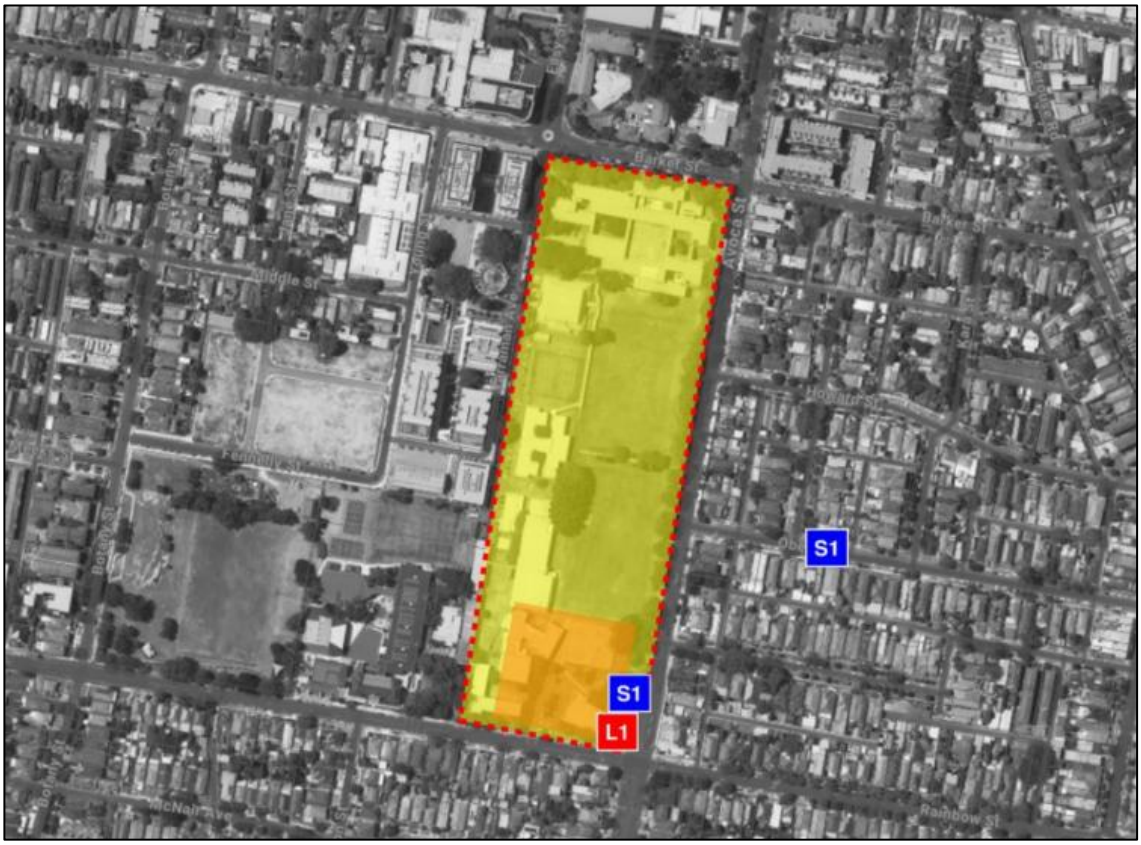


Figure 13: Noise Survey Locations (JHA, 2025)

6.2.1 Operational Noise

The NVIA provided an assessment of the following potential operational noise impacts:

- New mechanical plant from the development to the surrounding receivers.
- Noise from the use of new buildings.
- Noise from traffic generation.
- Aviation noise intrusion.

The nearest sensitive receivers were considered to be development on the southern side of Rainbow Street (No 129) located approximately 55m from the proposed administration / classroom building and Rainbow Street Public School which adjoins the site to the immediate west. As demonstrated in the NVIA, based on noise emission assessments undertaken, the noise emission from the external mechanical plant will comply with the noise level criteria at the nearest noise sensitive receivers as shown below in **Figure 14.**

Calculation	*Overall A-weighted noise level, in dB(A)*	
	129 Rainbow Street	*Rainbow Street Public School*
L_{Aeq} CUs @1m from plant, dB	74	74
Reflections, dB	9	9
Distance attenuation, dB	-36	-39
Barrier attenuation, dB	-9	---
Acoustic louvre attenuation, dB	---	-8
$L_{Aeq,15min}$ resulting at residential receiver	**38**	**36**
Daytime criteria NPI / Complies?	**58 / Yes**	**43 / Yes**

Figure 14: Noise Level Criteria at nearest receivers (JHA, 2025)

Based on the predicted use of the administration / classroom building and the lecture theatre, the NVIA confirmed that noise levels generated will be low and noise breakout from these spaces is not expected to exceed the external noise criteria with typical façade construction. Compliance with the external noise criteria will be achieved upon the implementation of construction material composite ratings identified in **Figure 15.**

Building	*Building Element*	*Required Composite R_w*
Teaching / Administration Building	Roof	39
	Walls (composite of walls, doors and glazing)	35
Lecture Theatre	Roof	43
	Walls (composite of walls, doors and glazing)	37

Figure 15: Sound Insulation Requirements (JHA, 2025)

With respect to traffic noise the NVIA confirmed that as the proposed activity will not facilitate an increase to student or staff numbers, nor any additional car parking within the site, no increase is expected to existing traffic noise levels within and surrounding the site.

The NVIA included an assessment of aircraft noise level exposure within the site as calculated in accordance with Section 3 of AS2021:2015. Typical noise levels for proposed buildings have been assessed based on the loudest aircraft noise levels including aircraft departures on the flight path and arrivals on the flight path. An assessment of noise break-in into the new buildings has been undertaken to demonstrate compliance with AS2021:2015 with key findings provided as follows:

- Based on Sydney Airport ANEF 2039 contours, the site is located within the 20-25 ANEF contour and is considered as ‘Conditionally acceptable’ for school developments.
- In general, for buildings on sites determined to be ‘Conditionally acceptable’, compliance with AS2021:2015 criteria is required. From a project perspective this will require that external windows and doors are to be kept closed within the new buildings, given if these are opened for ventilation purposes the aircraft noise reduction of the building envelope will be significantly reduced. Mechanical ventilation has been proposed to comply with AS1668.2:2012 ‘Mechanical Ventilation in Buildings’ noting that windows will need to be closed.

Mitigation Measure CMM20 has been implemented to stipulate specific building material ratings to ensure that the proposed activity satisfies relevant internal noise criteria.

6.2.2 Construction Noise and Vibration

The NVIA included a preliminary assessment of construction noise and vibration impacts along with feasible and reasonable noise and vibration control practices that should be observed during the construction of the proposed activity. Note the assessment is preliminary in nature given the construction program, contractor and mechanical plant / equipment needs have not yet been defined.

Based on the results of the preliminary assessment provided in the NVIA, the noise associated with the construction work is expected to exceed the noise limits for highly noise affected receivers within standard hours while using a circular saw, piling rig and excavators and a concrete pump. All other construction items / plant / machinery are expected to achieve compliance with stipulated construction noise requirements as shown in **Figure 16** below.

Item	Typical Power Noise Level L_{A10} (dB ref 1pW)	Typical Noise Level $L_{A10,15m}$ at 7m (dB ref 20μPa)	Predicted Noise Level $L_{Aeq,15m}$		Complies with Highly Noise Affected Criteria
			Nearest Residential	Existing School	
Angle grinders	104	76	61 – 66	77 – 82	Yes
Truck (>20 tonne)	108	80	65 – 70	81 – 86	Yes
Circular saw	115	87	72 – 77	88 – 93	No
Piling rig	120	92	77 – 82	93 – 98	No
10-40tn Excavator	117	89	74 – 79	90 – 95	No
40-50tn Mobile crane	111	83	68 – 73	84 – 89	Yes
Concrete pump	114	86	71 – 76	87 – 92	No
Concrete truck	110	82	67 – 72	83 – 88	Yes
Drill	94	66	51 – 56	67 – 72	Yes

Figure 16: Predicted Construction Nosie Levels (JHA, 2025)

Further to the above, construction noise is predicted to impact the existing school operations during construction. Therefore, the detailed Construction Noise and Vibration Management Plan (CNVMP) to be prepared by the contractor (see Mitigation Measure CMM21) shall include an assessment of the existing buildings in the school as affected receivers to protect the amenity of the students and staff during the construction works. The NVIA identified that compliance with the relevant construction noise criteria should be achieved through the implementation of specific noise mitigation measures such as acoustic screening around the site. These noise mitigation measures are to be provided in a detailed CNVMP and prepared by a qualified acoustic consultant as per mitigation measures in **Appendix 1**.

For any vibration intensive plant expected to be within proximity of the minimum distances described in the NVIA, the contractor must engage a qualified engineer to carry out a vibration survey to assess potential risks. The vibration survey and assessment will determine that if vibration levels exceed the relevant criteria, vibration mitigation and management measures will need to be implemented to ensure vibration impacts are minimised as far as practicable. This potential vibration impact will be assessed in the CNVMP.

6.2.3 Noise and Vibration Mitigation Measures

This REF and accompanying reports conclude the activity is not likely to have significant environmental impacts in relation to construction noise and vibration, or operational noise subject to implementation of the department's standard Mitigation Measures and project specific mitigation measures in Table 10.

Table 10: Noise and Vibration Mitigation Measures

ID	Mitigation Measure	Timing
OPMM6	A solid enclosure is required around the southern and eastern sides of the mechanical plant room. The solid enclosure shall have no holes, a minimum height of 400mm above the tallest element of mechanical plant and a minimum	Prior to the commencement of Operations of the new Administration/ Classroom Building and Lecture

ID	Mitigation Measure	Timing
	surface mass of 16kg/m^2. An acoustic louvre is required on the western side of the mechanical plant room. The louvres shall have an insertion loss equivalent to that of IAC SL-150 and be a minimum height of 400mm above the tallest element of the mechanical plant.	Theatre
CMM19	External glazing of the administration and teaching building facing east and north is to provide a minimum sound reduction index of RW35 to achieve the internal noise level criteria.	Construction

CMM20	Due to potential aircraft noise intrusion the following minimum composite RW ratings are required for the following buildings to achieve the internal noise level criteria:
	• Teaching / Administration building:
	  ○ Roof: RW39
	  ○ Walls: RW35
	• Lecture Theatre:
	  ○ Roof: RW43
	  ○ Walls: RW37
		Construction

CMM21	A detailed Construction Noise and Vibration Management Plan must be prepared which shall identify any noise criteria exceedance once construction methods and stages are identified.	Construction

6.3 Contamination and Hazardous Materials

A Detailed Site Investigation was prepared to assess soil conditions in support of the proposed activity. The scope of work undertaken within the development footprint comprised the following:

- Opportunistic sampling from 10 boreholes (BH101 to BH110) drilled in conjunction with the geotechnical investigation using a track-mounted drilling rig and hand tools to depths of between 1 m and 9.8 m below ground level;
- Concrete coring was undertaken prior to drilling, as required;
- Samples were logged and collected from the drilled boreholes. Collection and field screening of replicate soil samples was undertaken for volatile organic compounds (VOC) using a photoionization detector (PID);
- Selected samples were dispatched to a NATA accredited laboratory for the analysis of combinations of heavy metals (including arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), TRH, BTEX, PAH, OCP, OPP, PCB, Asbestos (fibrous asbestos / asbestos fines – FA / AF; and
- Quality samples were collected and analysed, including replicate samples and trip spike and trip blank samples.

Borehole locations are identified below in **Figure 17**.

Figure 17: Borehole Locations – Detailed Site Investigation (Douglas Partners, 2024)

Subsurface conditions encountered medium dense and dense sand, fine grained, yellow brown and pale grey sand encountered in the deeper boreholes (BH101-BH104) to depths ranging from 4.2 m to 5.1 m and within the shallow boreholes (BH105-BH110) to the maximum test depth of 3m. Silty sand was also encountered in BH103, BH106, BH107 and BH108 from depths of between 0.8m and 1.5 m.

The analytical results for contaminants tested in all samples were below the Site Assessment Criteria (SAC) with the exception of:

- Benzo(a)pyrene TEQ in samples BH109/0.1-0.2 m with concentrations of 3.7 mg/kg exceeded health investigation level ‘HIL C’ criteria of 3 mg/kg; and
- Benzo(a)pyrene (BaP) in samples BH109/0.1-0.2 m with concentration of 2.4 mg/kg exceeded the ecological screening level ‘ESL C’ criteria of 0.7 mg/kg.
- Asbestos was also recorded in analysed sample as follow:
    - Amosite asbestos was confirmed by laboratory analysis in soil samples collected at BH109. The elevated Polycyclic Aromatic Hydrocarbons (PAH) and asbestos in BH109 was detected in a layer of fill, directly below the concrete pavement.

Based on the results of the DSI a Remediation Action Plan (RAP) was prepared to address potentially unacceptable risks to relevant environmental values from contamination in order to render the site suitable, from a contamination perspective, for the proposed activity.

The RAP identified the need for further assessment of the asbestos and PAH impacted soil at BH109 which is to comprise the following by a suitably qualified Environmental Consultant:

- Excavate four test pits in the vicinity of the original borehole location BH109, on an approximate 5 m grid;
- Excavate a test pit at the original location of BH109;

- Sample the fill at the surface and then at 0.5 m depth intervals or at signs of contamination (i.e. odours, staining and/or asbestos etc.). The test pits will be extended to 0.5 m into observed natural soils, noting that the previously identified contaminants were found in the fill;
- Conduct field sieving for asbestos containing material (ACM) in accordance with the WA DoH (2021) guidelines;
- Analyse recovered fill samples for asbestos (gravimetric AF / FA) and PAH;
- Compare the test results against the adopted Remediation Acceptance Criteria (RAC) and SAC; and
- Assess the need for further delineation, remediation or management of the identified contamination including the previously identified asbestos and PAH in soil at BH109. Further delineation may be achieved by adopting additional test pits a further 5m from the location to be delineated.

Based on the existing data for the site, the technically viable remediation options comprise:

- Option 1: Excavation of the asbestos and PAH impacted soil, preparation of a waste classification report for the excavated soils, and off-site landfill disposal under that classification. Option 1 is considered to be Category 2 works and does not require consent.
- Option 2: Relocate the asbestos and PAH impacted fill beneath the footprint of the proposed new building, capped with the proposed building hardstand (e.g. concrete slab), and, if required, managed in the long term under a long-term environmental management plan (LTEMP). In addition, this option will require an amendment to the asbestos register for the school to include the location and depth of asbestos impacted soil. This option, as stated in the RAP, is subject to Council endorsement and may trigger Category 1 requirements.

The preferred remediation is Option 1, excavation and landfill disposal. Option 2 is considered to be a contingency option should the delineation investigations or subsequent civil works identify a quantity of asbestos impacted soils that would make Option 2 most economically viable. Note Option 2 would require Council endorsement before consideration and confirmation that the works are not Category 1 works requiring development consent. Accordingly, the proposed activity includes Option 1 for the purpose of this REF.

6.4 Contamination Mitigation Measures

This REF and accompanying reports conclude the activity is not likely to have significant environmental impacts in relation to contamination subject to implementation of the department's standard Mitigation Measures in Appendix 1.

6.5 Hydrology, Flooding and Water Quality

6.5.1 Hydrology

The DSI confirmed that groundwater seepage was encountered during the recent geotechnical investigation within the development footprint at depths between 2.4 m (RL 36.4 m) in BH102, 3.5 m (RL 35m) in BH103, and 3.5 m (RL 35.1 m) in BH104. The reporting also confirmed the existence of six (6) registered groundwater bores within 200 m to the west of the development

footprint with standing water of 5.20 m below ground level. Based on the regional topography and the inferred flow direction of nearby water courses, the anticipated flow direction of groundwater beneath the site would be to the south-west, towards Botany Bay, the likely receiving surface water body for the groundwater flow path.

Stormwater will be conveyed to the existing pit and pipe network within the site and directed to the established stormwater network within Rainbow Street to the south of Randwick High School.

6.5.2 Flooding

The site is impacted by flooding and a Flood Impact and Risk Assessment (FIRA - see **Appendix 3**) and Flood Evacuation Response Plan (FERP – see **Appendix 4**) have been prepared to support the proposed activity. The Birds Gully and Bunnerong Road Flood Study (2018) and associated TUFLOW and DRAINS model files were obtained from Council to facilitate the FIRA.

The site is situated within the Birds Gully catchment, which covers a total area of 1.7 km^2. The catchment is highly urbanised, consisting of a combination of residential, commercial and industrial developments. The FIRA confirmed that most waterways within the catchment have been replaced by urban drainage networks and concrete lined channels and pipes, including the Birds Gully trunk drainage network that traverses the site.

Comprehensive flood data analysis was undertaken within the FIRA for the 1% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) events. Pre development, post development without flood mitigation works and post development with the proposed flood works measures scenarios were modelled and the results articulated within separate headings below. Proposed flood mitigation works include the following:

- Height of existing bunding within the south west corner of the oval will be increased to better contain overflows from Avoca Street in the existing open field which will act as an informal basin;
- Walls and ramps will be introduced to create a barrier along the western edge of the existing basketball court (set at a level of 39.9m AHD) to contain the majority of flooding within the basketball court and car park accessed from Rainbow Street in the 1% - 0.5% AEP event;
- Design levels have been modified adjacent to the existing carpark to channel excess flows from the basketball court to towards the carpark; and
- No openings have been provided on the eastern side of the proposed administration classroom building to prevent ingress of flows from the car park.

Whilst the Part 5 planning pathway is not required to consider Council DCP requirements, for completeness the FIRA included a comprehensive review of the flood requirements stipulated in the Randwick Council Development Control Plan (DCP) 2013 which confirmed the following:

- There is a reduction in flood level of up to 87mm adjacent to the existing Block C. Across Rainbow Street, the isolated increase in flood levels over 10mm can be attributed to the shift in the discharge point. This is compensated by a decrease in flood level of up to 35mm at the former discharge location. Importantly, no adjacent properties are impacted by the proposed activity.
- Randwick DCP seeks to facilitate finished floor levels (FFL) within an educational establishment at the PMF level plus 500mm freeboard. Although educational facilities are

typically regarded as sensitive due to the more vulnerable nature of site users, the FIRA confirmed that the application of a freeboard on top of the PMF level is not standard practice throughout NSW and is onerous, particularly given the siting of existing buildings within the school and the level difference that would be required between proposed and existing.

- The feasibility of providing protection to the new buildings against the PMF,the PMF plus 500mm freeboard was investigated in detail. For the lecture theatre, the maximum PMF level adjacent to the building openings is 350mm above the current FFL. For the administration building, the PMF level is up to 410mm above the FFL. Given the high depth of flows, it is not possible to lift the FFL (or the individual building openings) above the PMF level without subsequently raising the external levels to meet accessibility requirements, which would in turn further raise the PMF level. All mitigation efforts were ultimately exhausted and the flood data demonstrated that compliance with the Randwick DCP for any new buildings within the development footprint is not achievable without significant adverse offsite impacts. Refer to Section 9.2.2 of the FIRA for further details.
- Whilst the modified car park accessed from Rainbow Street will be set below the 5% AEP flood level which represents a departure from the DCP, the overall flood hazard of the car park is lower in post-development conditions. In addition, it should also be noted that the proposed activity (which is largely located atop of the existing car park) ultimately reduces the number of car parking spaces available within the flood affected portion of the site, consequently lowering the overall exposure to flood risk.

Following a review of guidance provided by the department's Part 5 Assessment Team, the project team determined that protection of the new buildings to 1% AEP and 0.5% AEP levels represented the most appropriate outcome for the site to facilitate the construction of new buildings into a flood prone site without any significant or unacceptable flood risk to life or property. This equates to a FFL at ground level of 39.6m AHD for the lecture theatre and 39.0m AHD for the administration/ classroom building.

1% AEP Flood Event

Existing Conditions

The site is significantly impacted by overland flooding, which is primarily sourced from excess runoff overtopping onto the site from Avoca Street, the site's eastern frontage. Flows are primarily directed in a south / south-westerly direction across the site toward Rainbow Street, which acts as a major drainage outlet.

In the 1% AEP event, depths across the southwest of the site are typically around 300-400mm. In terms of hazard classification, the majority of flows in the 1% AEP event are classified as H1-H2 hazard surrounding the development footprint, which is regarded as safe for people and children.

The peak flood levels and depths and peak flood hazards during the 1% AEP event under existing conditions are shown in **Figures 18 and 19** respectively.

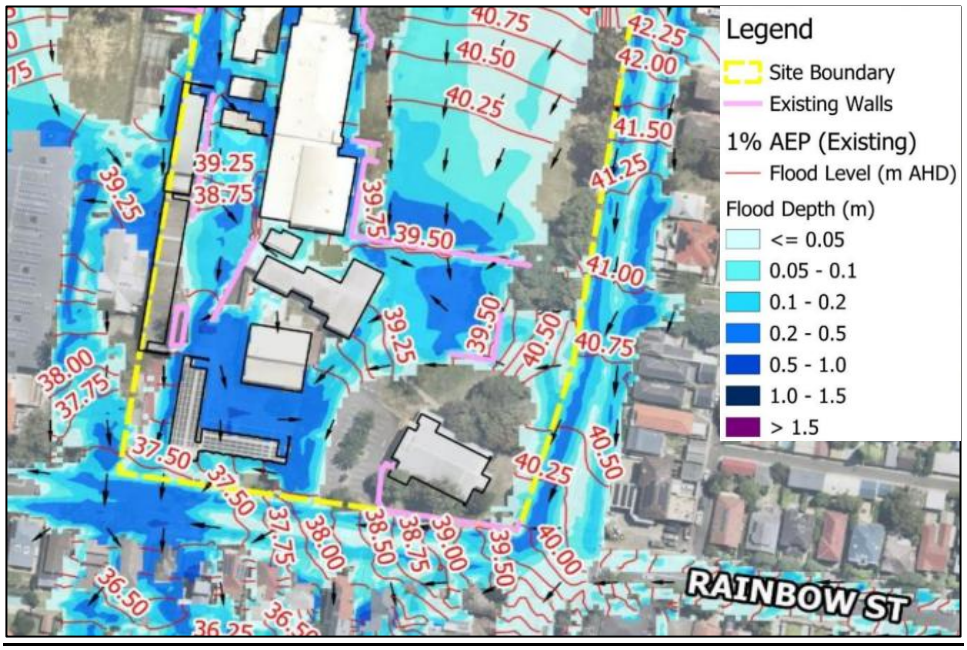


Figure 18: Existing Conditions Map – 1% AEP Event (TTW, 2025)

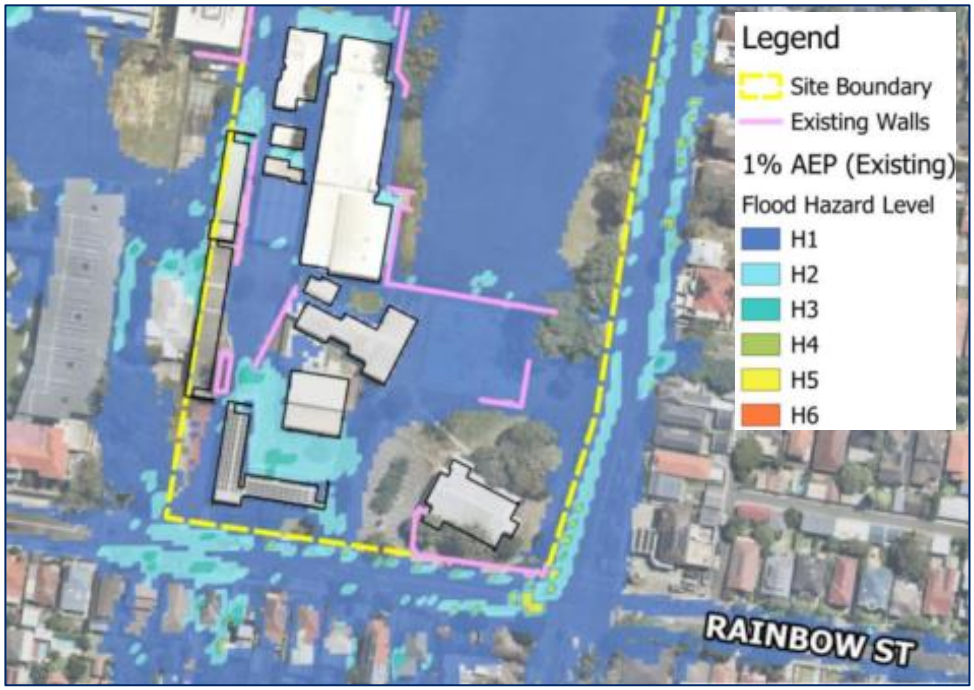


Figure 19: Existing Conditions Map – 1% AEP Hazards (TTW, 2025)

Post Development Scenario – without flood mitigation - 1% AEP Event

The post development scenario without flood mitigation was modelled as shown in **Figure 20**. Given the positioning of the proposed buildings within the main overland flow path across the south of the site, there was a significant increase in flood levels identified as the flows were diverted around the buildings.

Flood levels increase most significantly to the west of the proposed administration / classroom building, adjacent to the existing Block B, with an increase of 780mm in the 1% AEP event.

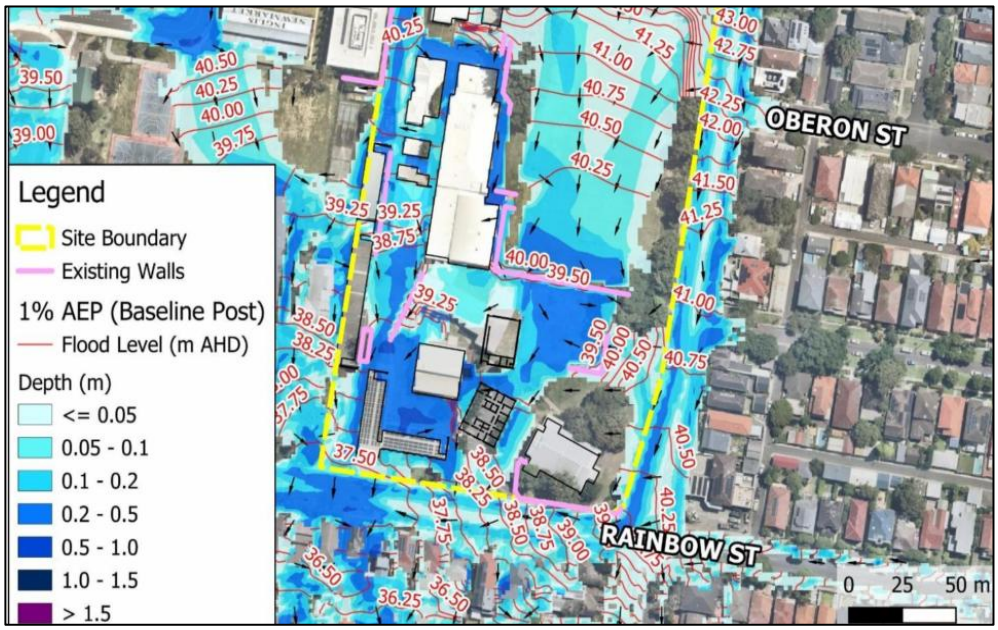


Figure 20: Post Development Scenario (without flood mitigation) – 1% AEP Event (TTW, 2025)

Post Development Scenario – with flood mitigation - 1% AEP Event

The significant 780mm increase in flood depth identified in **Figure 20** was determined to be an unacceptable outcome for the site and further modelling was undertaken to identify appropriate flood mitigation options, including the integration of flood retaining walls and earthworks within the existing oval to better manage flows through the site. 1% AEP flood depths in the post development scenario with flood mitigation works is presented in **Figure 21**.

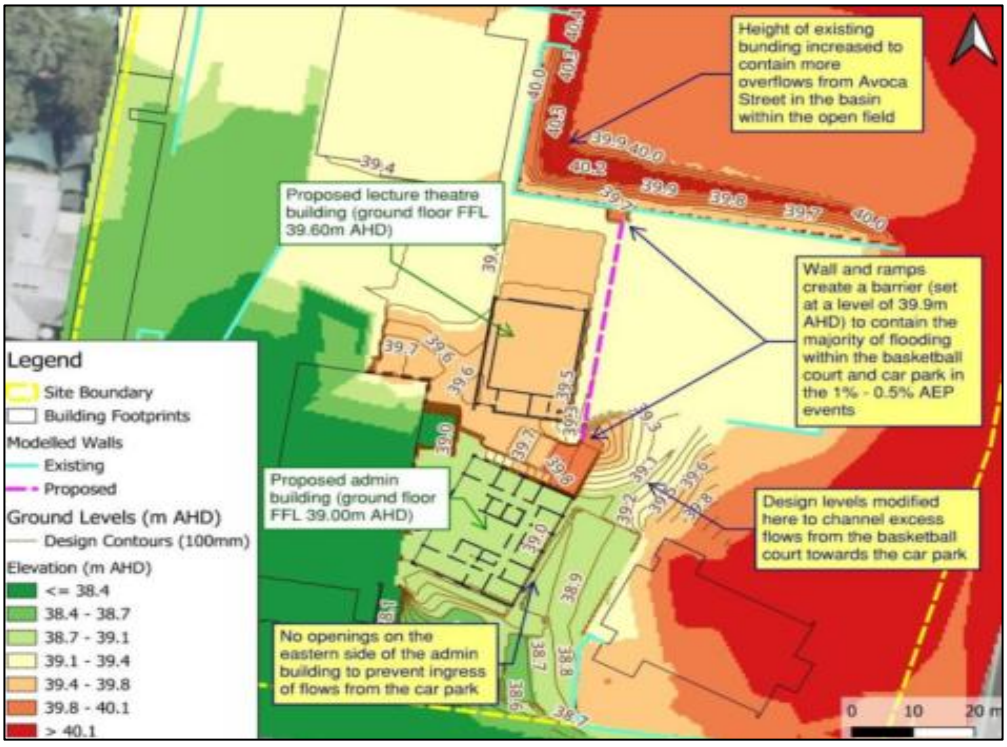


Figure 21: Post Development Model (with flood mitigation) (TTW, 2025)

Modelling demonstrated that with the inclusion of flood mitigation works, both proposed buildings are flood-free in the 1% AEP event, with no above-floor inundation. Overflows from Avoca Street are largely contained within the open field and basketball court, away from the proposed and existing buildings. The 1% AEP flood level in the open field reaches 40.22m AHD in post-development conditions, which is 300mm below the maximum proposed bund height of 40.52m AHD. In the basketball court, the flood level peaks at 39.35m AHD, which is 560mm below the proposed flood retaining wall height of 39.9m AHD. Flows are directed from the basketball court into the car park. Although the car park is located directly east of the administration building, there are no doorways on this side of the building, preventing any ingress of flows.

The implementation of the flood mitigation works ensures that flows are diverted around the existing and proposed buildings. The impact of the mitigation works on 1% AEP flood levels (in comparison to baseline post-development conditions) results in a decrease of up to 80mm in flood levels north of Block D. The small increase in flood levels immediately north of the proposed lecture theatre can be attributed to an increase in ground level in that location to accommodate the steps up to 39.9m AHD. Flows at this location are less than 50mm in depth with the implementation of the proposed flood mitigation works.

Flood and hazard levels in the 1%AEP event with flood mitigation measures are identified in **Figures 22 and 23** respectively.

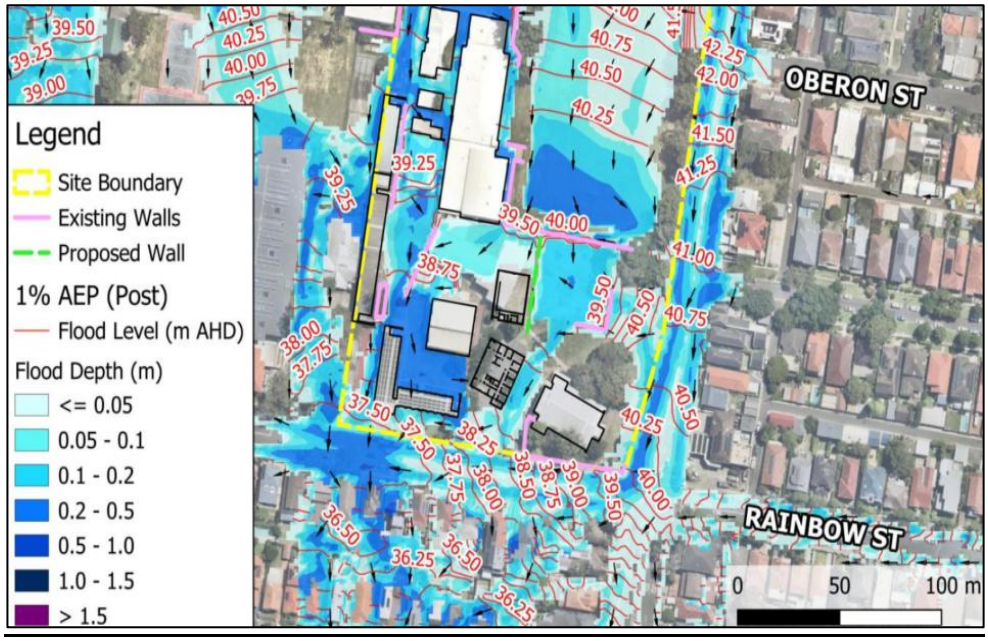


Figure 22: Post Development Scenario (with flood mitigation) – 1% AEP Event (TTW, 2025)

Figure 23: Post Development Scenario (with flood mitigation) – 1% AEP Hazards (TTW, 2025)

Probable Maximum Flood (PMF) Event

The peak flood levels during the post-development PMF event with the flood mitigation works implemented are presented in **Figure 24** and hazard levels in **Figure 25.** In the PMF event, the ground floor of both the proposed administration / classroom and lecture theatre buildings are impacted by above-floor inundation, however these impacts are less than that of the baseline post-development conditions, most substantially at the administration / classroom building. With the implementation of the proposed flood mitigation works including retaining walls outlined above, the PMF level adjacent to the student reception doorway (located on the northwest side of the administration building) decreases by 290mm.

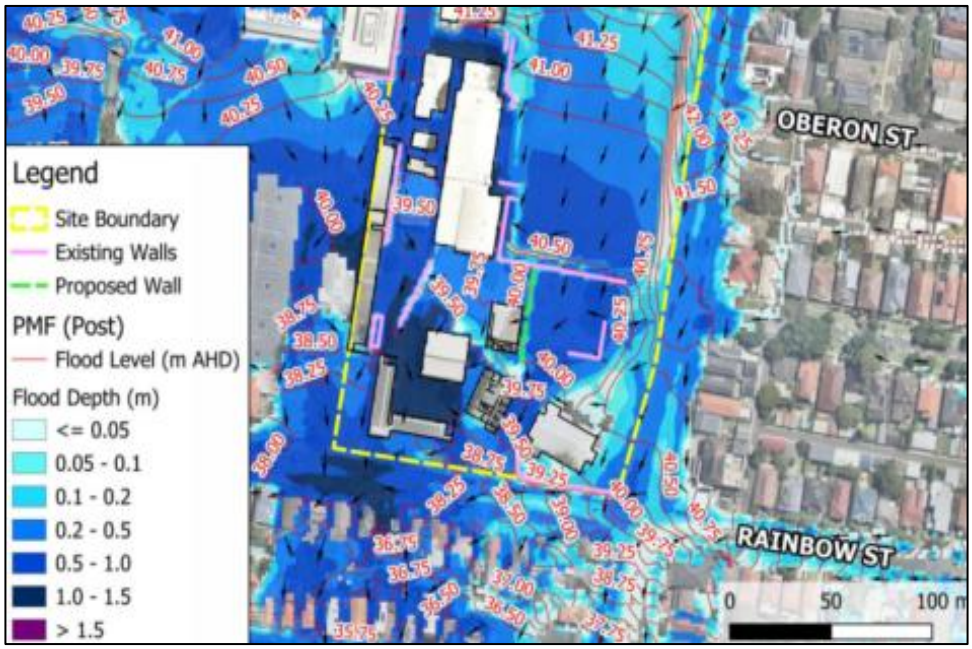


Figure 24: Post Development Scenario (with mitigation)– PMF Event (TTW, 2025)

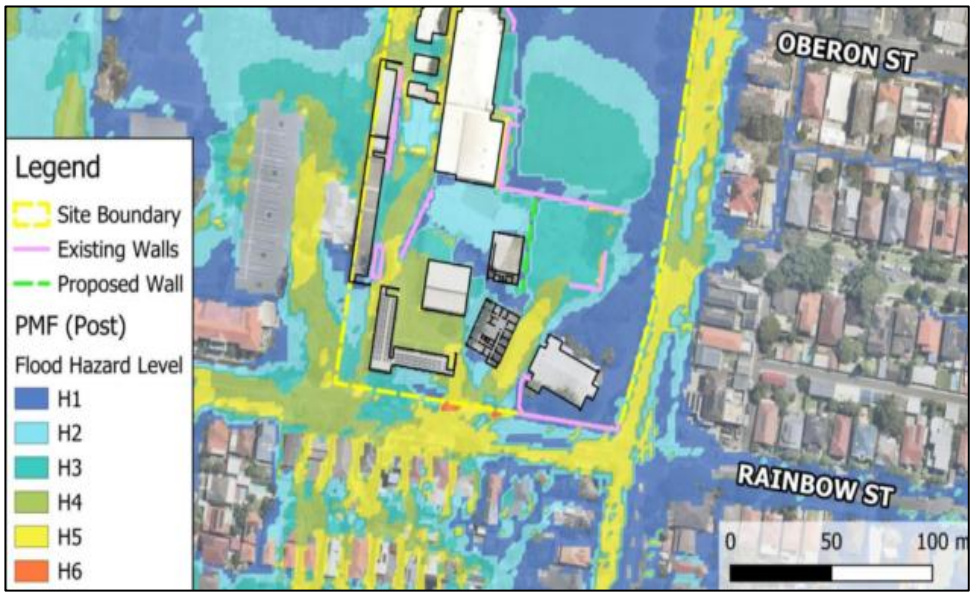


Figure 25: Post Development Scenario (with mitigation)– PMF Hazards (TTW, 2025)

Existing Block B Refurbishment

The proposed activity includes refurbishment and external upgrade works to existing Block B situated to the west of the proposed new buildings. Included in these upgrades is the addition of a new eastern entry to Block B which includes a staircase and a lift to the lower ground floor to improve accessibility.

The proposed activity will facilitate external upgrade works around Block B with new stairs which will be impacted by hazard levels of H3 (unsafe for children and vehicles) in the PMF event, with depths exceeding 1.0m in the critical 30-minute storm duration. This area however is not flood affected in either the 0.5% AEP event, 1% AEP event or the longer 3-hour duration PMF storm. The overall risk associated with the new entry to Block B was deemed in the FIRA to be low given there are internal and external access stairs to upper levels of the building well above the PMF flood level which provide safe passage.

In addition, as part of the upgrade works, the existing eastern entry to Block B at ground floor will be raised above the 1% AEP level. The current doorway is set at 38.2m AHD, with an adjacent flood level of 38.4m AHD in the 1% AEP event. To reduce the overall flood risk to the building, the proposed design includes external and internal steps and ramps to accommodate a new doorway set at 38.5m AHD, 100mm above the 1% AEP level. Whilst the new eastern entrance to the building is subject to inundation in the critical PMF event, the proposed works will ensure the building is flood-free in events up to and including the 0.5% AEP event. This presents a significant improvement to the existing flood risk and flood frequency for Block B and has been appropriately managed.

Climate Change

The FIRA confirmed that climate change is expected to have an adverse impact on rainfall intensities which has the potential to generate impacts to flood behaviour at specific locations (see **Figure 26**). The FIRA adopted the projected 2090 (CC2090) rainfall increase of 40% and applied this to the 1% AEP and 0.5% AEP event rainfall to determine flood level increase. Key conclusions were drawn from the FIRA as follows:

- *The results indicate that for the majority of the site, 1% AEP flood levels are expected to increase by 25-50mm in the CC2090 scenario.*
- *However, more significant increases are expected within flood storage areas. Based on the flood assessment locations, the largest increase in flood level is anticipated at Point D, within the existing basketball court, with a 179mm increase under CC2090.*
- *Of the six assessment points, the highest 1% AEP flood level is recorded at Point A within the open field, at 40.22m AHD, increasing to 40.34m AHD in the CC2090 scenario. Given that the current design includes a top of bund height of 40.52m AHD, the bund will not be overtopped even under future climate change, and the proposed buildings are not impacted.*
- *This is demonstrated in the negligible flood level increases recorded at Point B and C, with a maximum increase in 1% AEP flood levels of 25mm at Point B, northwest of the lecture theatre. Depths here remain below 150mm even under the 1% AEP CC2090 scenario.*
- *As a further sensitivity test, the CC2090 projections were applied to the 0.5% AEP event, with a maximum increase of 184mm in the basketball court (reaching 39.73m AHD, 170mm below the top of wall height). Similarly, floodwaters within the informal basin pond to a level of 40.42m AHD, and do not overtop the bund. At Point C, flood levels reach a maximum of 39.52m AHD, with no flood impacts to either the admin building nor the lecture theatre.*
- *The proposed development is consequently protected against future climate change.*

Point	Flood Level (m AHD) Increase Due to Climate Change			
	1% AEP Event		0.5% AEP Event	
	Present-day	CC2090	Present-day	CC2090
A	40.22	+117 mm	40.34	+76 mm
B	39.41	+25 mm	39.44	+24 mm
C	39.49	+17 mm	39.50	+20 mm
D	39.34	+179 mm	39.55	+184 mm
E	39.19	+118 mm	39.32	+131 mm
F	38.38	+111 mm	38.49	+138 mm

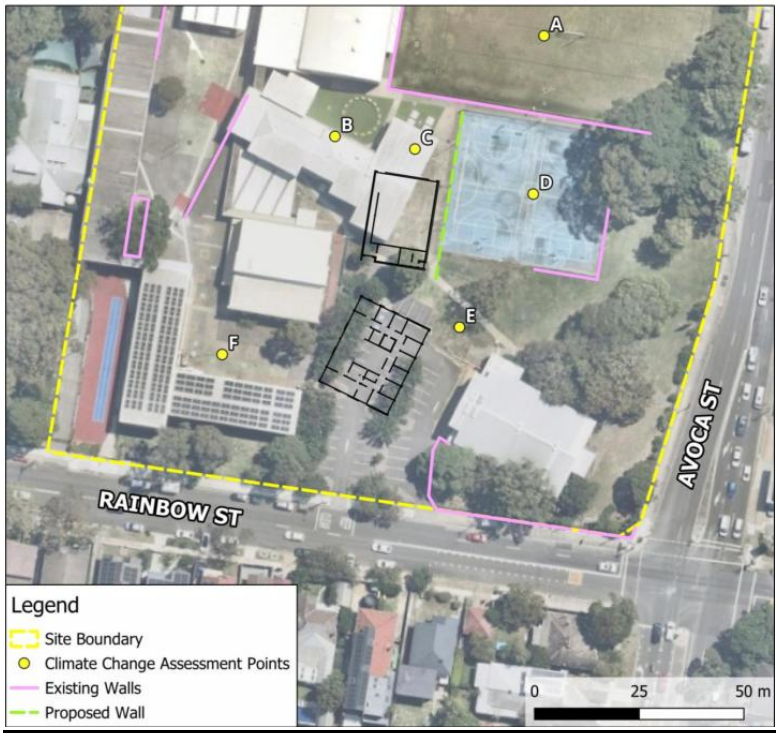


Figure 26: Climate change – locations where sensitivity has been assessed (TTW, 2025)

Offsite Flood Impacts

The Impact Assessment contained within the FIRA confirms that there is a minor increase in flood levels over 10mm within the gutter of Rainbow Street. This can be attributed to the shift in the overland flow path and discharge point onto Rainbow Street. This increase in level is compensated by a decrease in flood level of up to 36mm at the former discharge location, 15 metres to the west.

In conclusion the FIRA confirmed that the development achieves a net improvement in overall flood resilience at the site, with negligible offsite impacts (generally within ±10 mm in the 1% AEP event).

Flood Evacuation

A FERP was prepared to support the proposed activity (see **Appendix 4**). The purpose of this FERP is to summarise the flood risks associated with the site, identify preparation measures that should be undertaken to mitigate such risks, and provide an action plan with steps to be completed during a flood event.

The FERP identified the following in relation to site flood inundation and recession times:

- In the 1% AEP event, flows in the immediate vicinity of the proposed buildings are low hazard (H1), regarded as generally safe for people, vehicles and buildings. Offsite, flows at the corner of Rainbow Street and Avoca Street reach a maximum hazard level of H5, which is unsafe for people and vehicles.
- In the PMF event, the hazard level onsite peaks at H5 over the southern car park, and the internal road adjacent to the site's western boundary. All surrounding road frontages are impacted by H5 hazard flows, temporarily cutting off access to and from the site. The new eastern entry to Block B (which includes a staircase to the lower ground floor) is impacted by flooding with a hazard level of H3 (unsafe for children). It should be noted that this area is not flood affected in the 0.5% AEP event, and the overall risk is low, given that there is internal access to upper levels above the PMF.
- Within 10 minutes in the PMF (30 minute storm duration) event however, flows reach H5 (unsafe for people and vehicles. Buildings vulnerable to structural damage) hazard levels along Avoca Street and Rainbow Street, cutting off vehicular access to the site. Flows across the roadways begin to recede within 30 minutes of the onset of the storm. Flows across Avoca Street return to low hazard conditions (H1) after 40 minutes of the onset of the storm, and flood-free after 45 minutes.
- Within 30 minutes in the PMF (3 hour storm duration event), flows across Avoca Street and Rainbow Street reach H5 hazard level, cutting off access to the vehicular entrance to the site. The proposed buildings are not flood affected in the 3-hour PMF storm. Flows to the north of the lecture theatre peak at less than 100mm depth, regarded as low (H1) hazard. The roads (including the Rainbow Street sag point) return to flood-free conditions 3 hours 35 minutes following the onset of the storm.

The FERP identified the preferred flood response strategy for the site as pre-emptive closure. Pre-emptive closure of the school is the most appropriate flood emergency strategy for the school site if advanced warning is received outside of school hours, or where a severe event is forecast several hours in advance.

Although flash flood events are characterised by minimal warning times, there may be advanced notice of the extreme rainfall experienced in a 1% AEP–PMF event. During the operational phase, where there is enough warning prior to school opening hours, the school should be closed in advance of the flood event so children can be safe at home and parents do not have to drive though roads that could become hazardous. An SMS must be sent to staff and parents at the earliest opportunity (once the severe weather warning is issued by BOM) to ensure no site users enter dangerous road conditions. Any expected visitors of the site should also be informed via SMS if there is a risk of flooding to minimise the risk of people entering flood water.

While there is often advanced warning time of extreme rainfall events such as those endured in a 1% AEP- PMF event, this cannot be relied upon. Flash flood events are usually characterised by minimal warning times, and pre-emptive closure of the school may not be accomplished. The FERP therefore recommends that the school is prepared for a secondary shelter-in-place strategy. While the proposed site is deemed a sensitive activity as an educational establishment, the FIRA and FERP confirm the first floor level of the proposed administration / classroom building and the lecture theatre are protected up to the PMF level. It is therefore deemed more hazardous to attempt to evacuate the site once a severe storm event has already commenced, as this would involve moving vulnerable site users from a safe environment into roads of medium to high hazard.

The first floor of the proposed administration / classroom building and lecture theatre will be set to 42.72-42.75m AHD and are therefore well above the PMF flood level and considered to be safe for refuge. Overall, the proposed buildings have capacity for 426 people to shelter on Level 1.

Refer to the FIRA attached in **Appendix 4** for additional details.

Flood Conclusions

Based on the identification of potential flood impact issues, and an assessment of the nature and extent of the impacts of the proposed activity, the FIRA determined that:

- As the proposed activity does not include any increase in student enrolment capacity it will not result in an increased “population at risk” during flood events.
- In terms of land use, the two proposed buildings include an administration building and a lecture theatre, both of which are inundated at ground floor levels in the PMF event. Of these, the administration building is more significantly impacted by flooding (with a peak PMF flood level of RL 39.41 m AHD, 410 mm above the proposed FFL). However, the ground floor of this building will accommodate administrative offices, interview rooms, reception areas, and storage. All classrooms and educational spaces are located on the upper floor, well above the PMF level, thereby reducing the risk to more vulnerable occupants during extreme flood events. Staff on the ground floor of the administration building will be familiar with flood emergency response actions, as per the preparedness actions outlined in the FERP.
- Overall, the upgrade works enhance the school’s flood resilience by providing improved access to safe refuge areas above the PMF. The development also improves connectivity between existing buildings, most of which are more significantly flood-affected, thereby improving the school’s ability to respond safely during rare floods.
- The extent and nature of potential impacts are low and will not have significant adverse effects on the locality, community and the environment.
- Potential flood risks and impacts can be appropriately mitigated or managed to ensure that there is no significant effect on the locality and community through recommended measures as outlined above.

- The proposed activity is not considered to generate a significant impact in relation to flooding.

6.5.3 Water Quality

The site is not located within immediate proximity to a natural watercourse, river, lake or coastal area nor is the school located within a regulated catchment.

The proposed stormwater design incorporates the integration of silt arrestors which will assist with management of water quality prior to discharging to Council's infrastructure.

Subject to the implementation of mitigation measures in **Appendix 1** relating to implementation of stormwater quality and erosion and sediment control measures, the development will generate no adverse or unacceptable impacts to water quality.

6.5.4 Hydrology, Water Quality and Flooding Mitigation Measures

This REF and accompanying reports conclude the activity is not likely to have significant environmental impacts in relation to hydrology, water quality and flooding during construction and operations subject to implementation of the DoE standard Mitigation Measures and project specific mitigation measures in Table 11.

Table 11: Hydrology, Water Quality and Flooding Mitigation Measures

ID	Mitigation Measure	Timing
OPFMM1	Prior to the commencement of operation, the Flood Emergency Response Plan (FERP) is to be updated with roles assigned to relevant staff members and 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	Prior to the Commencement of Operations

6.6 Aboriginal Heritage

A Preliminary Indigenous Heritage and Impact Assessment (PIHAI) was prepared to identify the potential for Aboriginal cultural heritage to be affected by the proposed upgrade works. The report identified that an area of Potential Archaeological Deposit (PAD) was present across the wider site and that test excavation was required. An Aboriginal Cultural Heritage Assessment Report (ACHAR) was prepared which included test excavations in accordance with the Code of Practice

(DECCW 2010) which were undertaken over 10 days in April 2025 to further investigate the potential archaeological deposits. For reference the PIHAI identified the 'Project Area' as the entire site.

A total of 5 subsurface artefacts were identified, divided between a low-density artefact scatter to the north of the Project Area, Randwick HS AS-1(45-6-4159), and two isolated artefacts to the south, Randwick HS IA-1 (45-6-4158) and Randwick HS IA-2 (45-6-4157). All three sites were assessed as being of low scientific significance. Refer to **Figure 27** below which identifies the location of the artefacts. It should be noted Randwick IA-1 and I-A 2 sites are located within the footprint of the proposed activity subject to this REF. Randwick HS AS-1 is located within the northern portion of the existing oval and is located outside the scope of this REF.

Figure 27: Aboriginal sites (Everick Heritage, 2025)

The ACHAR confirmed the following in relation to test excavations and artefacts identified within the development footprint subject to assessment within this REF:

Randwick HS IA-1 (45-6-4158)

> *Randwick HS IA-1 (45-6-4158) comprises a single quartz fragment recovered at a depth of 3-400mm, from test pit 2. The fragment was recovered from a disturbed deposit comprising modern fill and is unlikely to indicate the presence of additional objects. The object comprises a small indeterminate edge fragment, with no indication of retouch.*

Randwick HS IA-2 (45-6-4157)

> *Randwick HS IA-2 (45-6-4157) comprises a single red silcrete flake recovered from a depth of 0-100mm within the topsoil of test pit 3. The object is from the active topsoil and is associated with modern disturbance. Therefore, is unlikely to indicate the presence of additional objects. The object comprises a small distal fragment, with no indication of retouch.*

Both Randwick HS IA-1 and I-A2 will be subject to 'total loss' meaning that the items cannot be retained in-situ due to unavoidable development conflict with the proposed activity being assessed in this REF. Randwick HS AS-1, located within the northern portion of the site, will be subject to a partial degree of harm associated with a separate scope of works, however the works impacting that artefact are not being assessed within the proposed activity that is subject to this REF.

Of note the ACHAR provided an interpretation of past Aboriginal land use within the Project Area as follows:

> *The Project area is located within the sensitive Botany Sand Dune system. However, construction of the high school has resulted in substantial disturbance, with no evidence of intact sensitive sand deposits identified during the test excavation. This is evidenced by the consistent identification of 200 to 600 mm of demolition fill across the site as well as the lack of sites identified where levels of disturbance was low. The three sites identified during the assessment indicate ephemeral activity and are likely the result of Aboriginal groups moving through the area. Therefore, it is considered that additional Aboriginal objects are unlikely to be identified during the proposed works.*

As evident in **Figure 28** below, the ACHAR confirms that potential archaeological impacts as a result of the proposed Randwick High School upgrade works are assessed as having low scientific significance.

Site name (AHIMS ID)	Research value	Education potential	Representative value	Rarity	Overall scientific significance
Randwick HS AS-1 (45-6-4159)	Low	Low	Low	Low	Low
Randwick HS IA-1 (45-6-4158)	Low	Low	Low	Low	Low
Randwick HS IA-2 (45-6-4157)	Low	Low	Low	Low	Low
Overall	Low	Low	Low	Low	Low

Figure 28: Summary of scientific significance (Everick Heritage, 2025)

To undertake the proposed activity which is likely to involve harm to an Aboriginal object or Aboriginal Place it is necessary to apply to Heritage NSW (Department of Climate Change, Energy, the Environment and Water (DCCEEW)) for an Aboriginal Heritage Impact Permit (AHIP). An AHIP will be required for the proposed activity to impact the following sites relevant to the works proposed under this REF:

- Randwick HS IA-1 (45-6-4158); and
- Randwick HS IA-2 (45-6-4157) .

The AHIP will also apply for harm to Randwick HS AS-1 (45-6-4159) associated with a scope of works separate to the current proposal.

The AHIP boundary will be localised to footprint of the existing Aboriginal site extents.

Prior to the AHIP being granted, exclusion fencing must be established around the AHIP boundaries and no ground disturbing works may take place within this vicinity until the AHIP is granted. Refer to **Figure 29** which identifies associated AHIP boundaries within the works footprint associated with the proposed activity only. Land outside the AHIP boundaries have been assessed as unlikely to contain Aboriginal objects. Works in these areas may be undertaken under the Due Diligence Defence of the National Park and Wildlife Act 1974.

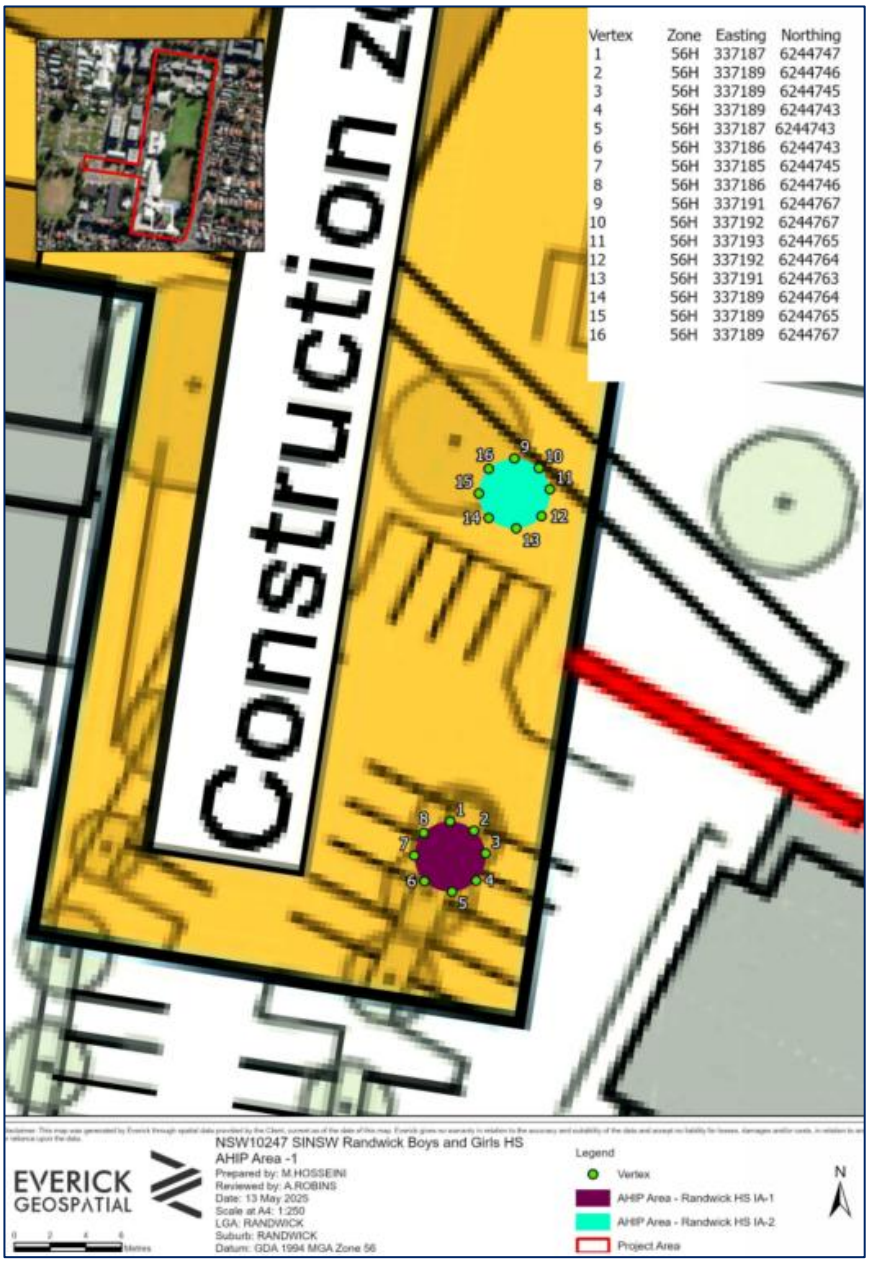


Figure 29: AHIP Boundary (Everick Heritage, 2025)

6.6.1 Aboriginal Heritage Mitigation Measures

This REF and accompanying reports conclude the activity is not likely to have significant environmental impacts in relation to Aboriginal heritage subject to implementation of the department's standard Mitigation Measures and project specific mitigation measures in Table 12.

Table 12: Aboriginal Heritage Mitigation Measures

ID	Mitigation Measure	Timing
HMM2	If any unexpected Aboriginal objects, sites or places (or potential Aboriginal objects, site or places) are discovered outside of the boundary of the AHIP permit during any construction work, all works in the vicinity must cease and the area must be appropriately protected. The DoE	Construction

ID	Mitigation Measure	Timing
	Heritage Team is to be notified and an archaeologist engaged to undertake a site inspection to assess the find in consultation with the Registered Aboriginal Parties (RAPs). Following the on-site assessment, the archaeologist and RAPs (if they attended the site) are to advise on whether further management, mitigation or approvals are required in consultation with the DoE Heritage Team. Should Aboriginal objects be identified, these are to be registered in the Aboriginal Heritage Information Management System (AHIMS). An Aboriginal Heritage Impact Permit (AHIP) would also need to be obtained to impact the site.	
HMM4	Works within the AHIP boundary must be undertaken in accordance with its conditions and the recommendations of the ACHAR.	Prior to Construction
HMM5	Prior to the AHIP being granted temporary exclusion fencing must be established around the AHIP boundary as defined in the ACHAR.	Prior to Construction
HMM6	All staff undertaking ground disturbing works must be provided with an Aboriginal Heritage Induction outlining the Legislative Context Aboriginal background and management measures of the project. Further Aboriginal Heritage Induction must provide guidance on the identification of Aboriginal objects to support the Aboriginal Finds Procedure.	Prior to Construction

6.7 Environmental Heritage

Randwick High School is not a listed heritage item or within a Heritage Conservation Area (HCA) on any heritage register or database. As evident in **Figure 30**, Lot 1738 DP48455 and Rainbow Street Public School is a locally listed heritage item (‘Rainbow Street Public School’, Item ID I437). Note Lot 1738 also encompasses a small area of the high school (Block E and Block F). Whilst the heritage mapping extends over Blocks E and F within the high school, the listing however is specific to the part of the lot utilised as a public school, and the public school buildings; the established significance of this item does not extend to the high school buildings (Block E and Block F) despite them being located within the mapped heritage item.

Two items listed on the Sydney Water s170 Heritage and Conservation Register are located partially within the grounds of the high school, being the Birds Gully Stormwater Channel No 10 (SHI 4574209) and the Coogee Randwick Outfall (SHI 4570801). The curtilages of these items are formally identified by the boundary of their built structural elements. In the case of the Birds Gully Stormwater Channel this is reported to have a maximum dimension of 4 feet 6 inches by 3 feet 6

inches. The dimension of the Coogee Randwick Outfall has maximum dimensions of 6 feet by 4 feet. Both items are sub-surface and their curtilage does not overlap with the proposed demolition or construction footprint (See **Figure 30**). No heritage impact to the S170 items will be generated by the proposed activity.

The site also adjoins a State heritage item (SHR – 00388 - Big Stable Newmarket) located at 29-39 Young Street, Randwick.

A Heritage Impact Assessment (HIA) has been prepared (see **Appendix 2**) to assess potential impacts on heritage values within the locality. The visual inspection undertaken within the HIA confirmed that there is no physical relationship between the footprint of the proposed activity and any heritage items located in the vicinity. In relation to an assessment of impact, the HIA confirmed that there is no discernible visual relationship between the development footprint and heritage items in the vicinity. All heritage items in the vicinity are situated within a developed context that features a range of building styles and scales; views to and from these items have therefore already been subject to change to varying degrees.

The ‘Rainbow Street Public School’, ‘Big Stable Newmarket’, and ‘Newmarket Sale Ring’ do not have clear or direct views to the proposed siting of the new buildings due to the presence of existing school buildings located along the western side of the school site, as well as the presence of large-scale residential buildings located between these items and the proposed activity area.

The ‘Late Edwardian House’ and ‘‘Canberra’ Edwardian House’ do have views to the proposed new building locations. However, these views already contain a number of buildings of a comparable scale and typology to those proposed. Further, the distance between these heritage items and the proposed new buildings effectively limits their visibility from views from the heritage items, and means they will not form part of immediate views to these items.

The significance assessment presented at Section 4.1 of the Heritage Impact Statement determined that the project area does not meet any of the criteria for assessing heritage significance. As such, works within the project area will not result in any direct impacts to fabric or buildings of heritage significance. Further, as none of the heritage items located in the vicinity of the project area extend into the project area, the proposed works will not result in any direct (physical) impacts to these items. Visual impacts to these items were assessed as being negligible, at most. This is due to the limited visual relationship between the project area and these items, the extent to which the visual context of these items has already been impacted by contemporary development, and the presence of existing buildings between some of these items and the project area.

The Heritage Impact Statement concluded that overall, the potential heritage impacts of the proposed project are assessed to be negligible at most, with any such impacts being limited to indirect, visual impacts to heritage items located to the northeast. As such, there are no identified heritage constraints associated with the proposed activity, and no requirements for any further assessment or investigation of built heritage

The proposed activity will not impact the heritage significance of any State or local heritage items or heritage conservation areas. Standard mitigation measure (HMM1) ensures appropriate management of any unexpected archaeological relics discovered during demolition and construction.

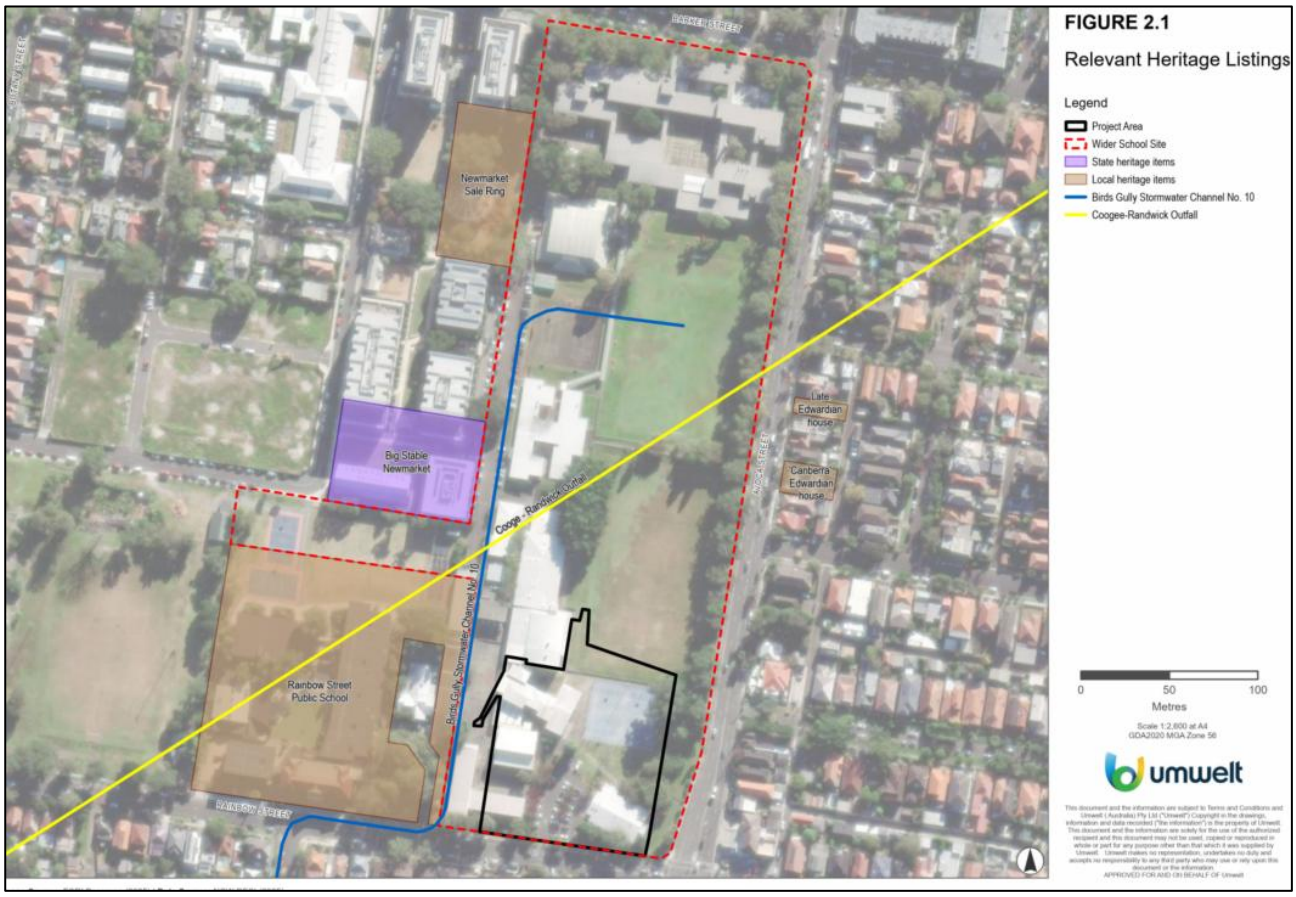


Figure 30: Extract from Heritage Map (Umwelt, 2025)

6.8 Ecology

An Ecological Assessment (EA) was prepared to assess the proposed activity. The purpose of the assessment was to document biodiversity findings and identify potential biodiversity constraints relevant to the proposed activity under the *NSW Biodiversity Conservation Act 2016*, *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*, and the *NSW Fisheries Management Act 1994*.

The EA concluded that the subject site is highly modified and within an urbanised area. The vegetation within the site comprises mature native trees *Melaleuca quinquenervia* (Broad-leaved Paperbark), *Casuarina glauca* (Swamp Oak) *Corymbia maculata* (Spotted Gum), *Melia azedarach* (White Cedar) interspersed with non-native landscape plantings *Stenocarpus sinuatus* (Firewheel Tree), *Jacaranda mimosifolia* (Jacaranda), *Harpephyllum caffrum, Pinus sp*. (Pine species) .Naturalised species such as *Agonis flexuosa* (Australian willow myrtle) and *Lophostemon confertus* (Brush Box) are also common. The car park was dominated by plantings of *Pyrus calleryana* (Callery pear).

The EA confirmed that vegetation to be removed (assessed to be approximately 0.18ha in area) is not remnant nor consistent with any locally found Plant Community Type (PCT), and the existing ecosystem is already highly disturbed or completely disrupted.

Of note, the EA confirmed the following:

- A small portion of native vegetation would be impacted by loss or harm; however this was identified as planted native vegetation,

- No significant impacts would be caused to any native ecosystem.
- No significant impacts to threatened species listed under the BC Act are anticipated as a result of the proposed activity.
- The proposed activity is highly unlikely to significantly impact protected and threatened flora, terrestrial, fauna species, populations, ecological communities and their habitats.

The removal of trees was assessed and the EA concluded that there will be no significant impacts on matters of national environmental significance. As there were no threatened species found, a Test of Significance was not required. The proposal is unlikely to generate a significant impact on the environment. Therefore, it is not necessary for an EIS to be prepared and approval to be sought from the Minister for Planning under the *EPBC Act 1999*.

The assessment confirmed that the proposed activity will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations, ecological communities, their habitats, or impact biodiversity values. Additionally, the proposed activity is not likely to have a significant impact on matters of national environmental significance or on the environment of Commonwealth land. Therefore, referral to the Minister under the *EPBC Act* is not required, nor the preparation of a Species Impact Statement (SIS).

The assessment confirmed that potential impacts can be appropriately mitigated or managed to ensure minimal effect on the locality or community.

6.8.1 Ecology Mitigation Measures

This REF and accompanying reports conclude the activity is not likely to have significant environmental impacts in relation to ecology subject to implementation of the department's standard Mitigation Measures and project specific mitigation measures in Table 13.

Table 13: Ecology Mitigation Measures

ID	Mitigation Measure	Timing
TMM2	A suitably qualified Project Ecologist should be engaged during vegetation clearing to undertake a pre-clearing survey of the Subject Site. The pre-clearing survey should include: • Demarcation of fauna habitat • Demarcation of Priority Weeds listed under the Biosecurity Act 2015 • Microbat roost survey of buildings proposed for demolition. If any fauna habitats require removal as a result of the proposed works, the Project Ecologist must supervise the clearing of such habitats.	Construction

6.9 Social Impact

6.9.1 CPTED Assessment

Crime Prevention Through Environmental Design (CPTED) assessments consider the design of a development and recommend appropriate measures to ensure that crime can be prevented or limited. There are four main criteria considered in a CPTED assessment, being access, surveillance, territorial reinforcement and space management. These criteria are considered below for the proposed activity at Randwick High School.

Access

Access Control can be defined as physical and symbolic barriers that are used to *'attract, channel or restrict the movement of people'*.

Effective access control can be achieved by creating:

- Landscapes and physical locations that channel and group pedestrians into target areas;
- Public spaces which attract, rather than discourage people from gathering; and
- Restricted access to internal areas or high-risk areas (like car parks or other visited areas). This is often achieved through the use of physical barriers.

Positive access control aspects of the proposed activity include:

- Installation of the department's standard perimeter fencing which will restrict unauthorised entry to the site;
- Appropriate locks to be fitted to all external doors and windows within the new buildings; and
- The proposed activity will channel pedestrians into a new formalised administrative entry to the school from Rainbow Street.

Surveillance

The Crime Prevention and the Assessment of Development Applications Guideline state that 'the attractiveness of crime targets can be reduced by providing opportunities for effective surveillance, both natural and technical'.

From a design perspective, 'deterrence' can be achieved by:

- Clear sightlines between public and private places;
- Effective lighting of public places; and
- Landscaping that makes places attractive, but does not provide offenders with a place to hide or entrap victims.

Positive surveillance features of the proposed activity include:

- Passive surveillance of the proposed administration and classroom building will be provided from Rainbow Street and the staff car park;
- Passive surveillance of the entry points to the new lecture theatre will be provided from the basketball courts, pedestrian pathways and development surrounding Block B;
- The proposed buildings will benefit from clear sightlines along new pedestrian paths and landscaped areas; and

- Continued use of intercom / camera systems on main pedestrian gates to ensure that visitors to the site are monitored.

Territorial Reinforcement

Territorial reinforcement can be achieved by enhancing ‘community ownership of public space’ as it sends positive signals and reduces opportunities for crime.

Effective territorial reinforcement and community ownership can be achieved by creating:

- Design that encourages people to gather in public space and to feel some responsibility for its use and condition;
- Design with clear transitions and boundaries between public and private space; and
- Clear design cues on who is to use space and what it is to be used for.

Positive territorial reinforcement aspects of the proposed activity include:

- The proposed lecture theatre provides an open and adaptable space;
- Formal pathways, signage and limited points of entry assist with wayfinding throughout the site;
- Appropriate fencing will be retained along site boundaries to delineate public from private / semi public space; and
- Architectural design provides visual cues that distinguish the appropriate use of areas like the administration building entry and the lecture theatre.

Space Management

Space management ‘ensures that space is appropriately utilised and well cared for’. Strategies include activity coordination, site cleanliness, rapid repair of vandalism and graffiti and the replacement of decayed physical elements.

Space management aspects of the proposed activity, both design related and operational, include:

- Implementation of the recommendations provided in the Waste Management Plan which will ensure the site is clean and appears to be visually well cared for;
- Use of materials and lighting that are vandal resistant, where possible; and
- The proposed design adopts an ‘uncluttered’ design rationale which will also ensure that effective space management can be achieved.

Impact Analysis - CPTED

An assessment of the proposed activity in accordance with the CPTED principles confirms that the development can be managed to minimise the potential risk of crime and a re-design of the proposed activity is not required.

6.9.2 Social Impact Analysis

Randwick High School is an existing educational establishment and functions as an important element of the social fabric of the locality.

Table 14 provides an analysis of social impacts in the context of the proposal. Note the analysis is not intended to function as the key review of environmental impacts which include amenity, privacy and acoustics given these are provided elsewhere in the REF, rather, it provides a holistic

overview of social considerations and identifies and discusses solutions that ensure the development can avoid / mitigate any impacts to a level that is appropriate and acceptable.

Table 14: Social Impact

Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively	Discussion
Impacts on access – will there be an improvement to the quality of provision and a response to emerging and changing needs?	• Provision of new main pedestrian access from Rainbow Street into the school – established positive impact. • Proposed pedestrian paths and new entry forecourt which will facilitate an accessible path of travel from the southern site frontage – established positive impact. • Access to the new buildings provided for all abilities – positive impact.	The upgraded entrance and pedestrian access improves the appearance of the school site/street frontage and supports the co-educational function of the school. Access compliance will be demonstrated at detailed design stage of the development. Standard mitigation measure (GMM1) is provided in **Appendix 1** to ensure that the design is compliant with legislative accessibility requirements.
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?	• New buildings will not create any privacy or overlooking issues - potential negative impact mitigated through siting, design.	The proposed buildings have been designed to consider and address a number of the potential impacts mentioned. In relation to over-looking and privacy, the buildings have been sited centrally within the school to mitigate any privacy or overlooking of residential dwellings to the south across Rainbow Street. Further, the buildings have been appropriately designed to limit acoustic / visual impacts to and from the school.
Impacts on sense of place - will there be effects on community cohesion or how people feel connected to the place and its character?	• No changes to the established land use – no impact. • The architectural design and service upgrades are expected to represent a significant visual upgrade of the site – positive impact. • Proposed lecture theatre to facilitate adaptable future uses – positive impact. • Construction impacts will have potential temporary impacts on the school and sense of place within the immediate locality – temporary negative impact.	The contribution to sense of place for the longer term is overall a positive impact to the sense of place for the school and immediate surrounds. The potential temporary impacts during the construction phase of the development can be mitigated through appropriate management of the site and through the mitigation measures outlined in this REF. Any negative impacts from this phase will be minor and outweighed by the positive impacts from the future development.
Impacts on the way people get around – will there be changes associated with traffic or parking in the area?	• Reduction in existing on-site parking – potential negative impact. • Existing pedestrian access points will be largely maintained to the site – no	A mitigation measure has been included requiring the replacement of parking prior to the occupation of the new buildings. Appropriate locations are available for parking to be

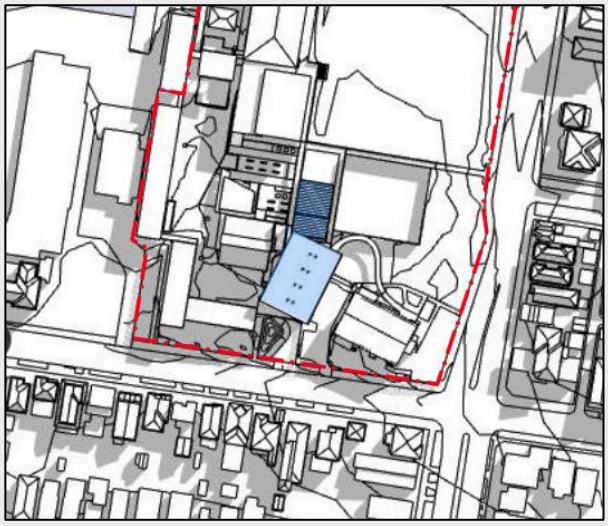
Type of Impact	Describe the impacts on the community and how they might be experienced, either positively or negatively	Discussion
	impact long term, minor negative impacts during construction. • Improved pedestrian connectivity throughout the site – positive impact.	replaced on site. Potential minor traffic impacts during construction will be dealt with via appropriate management and mitigation measures. No significant changes are proposed to school operations and the school can continue to operate as per the current environment. Minor changes will be experienced during construction and appropriately managed.
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?	• Provision of a new administration / classroom building and lecture theatre on the site – positive impact. • Potential for community use of school spaces with improved facilities which will improve the social capital of the Randwick area – positive impact.	No mitigation measures required.

6.10 Other issues

Table 15 includes discussions and assessment of other relevant issues.

Table 15: Assessment of Other Environmental Issues

Issue	Consideration
Visual Amenity and Privacy	The works are proposed within an urban environment that does not comprise high scenic value. Whilst the administration / classroom building will be visible from the public domain and the road reserve, the built form has been designed to integrate appropriately within the streetscape and maintains consistency in height and scale with school buildings immediately adjacent to minimise visual dominance. Built form elements are assessed under separate headings below. **Visual Amenity and Views** The proposed administration / classroom building is two storeys in height and benefits from a setback of over 22m from the southern boundary which is greater than the established front setbacks of both existing Blocks G and H adjacent. The proposed administration / classroom building will not give rise to any unacceptable view or visual amenity impacts. The materials and architectural design elements associated with the built form, together with new landscaping within the school entryway, will significantly upgrade the visual attributes of the streetscape when viewed from Rainbow Street. The proposed lecture theatre will be centrally sited within the school and, noting the appropriate two storey scale and relatively modest footprint, will not give rise to any

Issue	Consideration
	visual amenity impacts or view loss. **Privacy and Overlooking** The proposed administration / classroom building and the lecture theatre are both centrally sited with existing school buildings immediately surrounding. The proposed activity will not give rise to any overlooking of neighbouring development to the south or east due to the location of the development, the adjoining school infrastructure buildings and oval, and the location of the road network adjacent.
Overshadowing	Shadow diagrams prepared for the development confirm the proposed buildings will not give rise to any adverse or unacceptable shadow impacts as discussed below: **9am Shadows -** • As evident in **Figure 31**, shadows are cast to the south west. Impacts from the new administration / classroom building are contained almost wholly within the site with a very minor extension of shadow into the road reserve / pedestrian pathway at Rainbow Street.  **Figure 31: Extract from Shadows – 9am (Bennett and Trimble, 2025)** **12pm Shadows -** • As evident in **Figure 32**, shadows are cast to the south / south east. Impacts from the new administration / classroom building are contained wholly within the site.

Issue	Consideration
	 **Figure 32: Extract from Shadows – 12pm (Bennett and Trimble, 2025)** **3pm Shadows –** • As evident in **Figure 33**, shadows associated with the new buildings are cast to the south east and contained wholly with the site.  **Figure 33: Extract from Shadows – 9am (Bennett and Trimble, 2025)**
Bushfire	The site is not identified as bushfire prone on the bushfire prone land map. The site is also not surrounded by unmanaged land that could present a bushfire risk. Further consideration of bushfire impact is not required.
Soils and Geology	A Geotechnical Report has been prepared for the proposed activity which has considered the environmental impacts associated with the soil and geology of the site. The report confirmed there are no geotechnical risks identified that would constrain future development of the site. Design measures and ground treatments are necessary to accommodate the site conditions. Geotechnical recommendations are provided in the report to guide the detailed design of the development. Groundwater seepage was encountered during the recent geotechnical investigation within the development footprint at depths between 2.4 m (RL 36.4 m)

Issue	Consideration
	in BH102, 3.5 m (RL 35 m) in BH103, and 3.5 m (RL 35.1 m) in BH104. The Geotechnical Report confirmed the following in relation to excavation and groundwater: *Excavations may be required for services trenches, footings or other localised excavations relating to the development, which are likely to be carried out through mostly fill and natural sands. These excavations should be readily achieved using conventional earthmoving equipment such as tracked excavators. If any deeper excavations extend to near the groundwater levels, then it will be necessary to undertake local dewatering during excavation with appropriate trench shoring and/or battering of the sidewalls.* Appropriate permits will need to be obtained from Water NSW for construction dewatering should excavation be undertaken to a depth that reaches the water table.
Waste	A WMP has been prepared to inform the proposed activity. The proposed activity will not facilitate any changes to existing students or staff numbers. Waste generated in the proposed administration / classroom building and the lecture theatre will be transferred to the existing bulk waste bins for private contractor collection from the Barker Street car park as per the existing arrangement. Demolition and construction activities at the site will generate a range of construction and demolition (C&D) waste. All construction materials will be reused and recycled where possible, minimising the disposal (landfilling) of materials other than those that are contaminated or unsuitable for reuse or recycling processes. Options for reuse, disposal and recycling of C&D waste were identified in the WMP prepared for the proposed activity (e.g. return to manufacturer, recycled at C&D processor, or disposed to landfill if contaminated). The Contractor and their Project Manager will be responsible for the C&D elements of the WMP, including preparation of waste documentation and processes during the excavation and construction phases of the development. The following standard mitigation measures are included in **Appendix 1** to mitigate impacts associated with waste: • CMM2 – Construction Environmental Management Plan. • CMM6 – Construction Materials. • CMM11 – Construction Waste. • SWMM2 – Imported Fill Material. • OPMM1 – Operational Waste.
Air Quality	The site adjoins Avoca Street and Rainbow Street which are Classified roads and a potential source of polluting emissions due to the volume of vehicle movements. The Interim Guideline for Development near Rail Corridors and Busy Roads state that air quality should be a design consideration when the following location / development triggers are met: • Within 10 metres of a congested collector road (traffic speed of less than 40 km/hr at peak hour) or a road grade > 4% or heavy vehicle percentage flows > 5%, • Within 20 metres of a freeway or main road (with more than 250 vehicles

Issue	Consideration
	per hour, moderate congestions levels of less than 5% idle time and average speeds of greater than 40 km/hr), • Within 60 metres of an area significantly impacted by existing sources of air pollution (road tunnel portals, major intersection / roundabouts, overpasses or adjacent major industrial sources), or • As considered necessary by the approval authority based on consideration of site constraints, and associated air quality issue. The proposed buildings **are not** located: • Within 10m of a congested collector road; • Within 20m of a freeway or main road; or • Within 60m of a road tunnel portal, major intersection, overpass, or major industrial source. The proposed administration/ classroom building windows are located a minimum 24.5m Rainbow Street in the south and 70m from Avoca Street in the east. This significant buffer distance, in excess of that provided for existing development within Randwick High School, will ensure that unacceptable or adverse air quality impacts will not be facilitated via the siting of either the proposed administration / classroom building or the lecture theatre. The proposed operation of the administration / classroom building and the lecture theatre will not generate any odour. Construction air quality impacts, mainly dust and the like, will need to be considered within the Construction Environmental Management Plan (CEMP) that will be prepared in accordance with mitigation measures in **Appendix 1**.
Wind	The proposed development is limited to buildings of two (2) storeys in height and will not contribute to or be unnecessarily impacted by wind. No further assessment or mitigation measures are required.
Land Use	The development is not proximate to any restricted land uses. The site is not proximate to an oil or gas pipeline. The site is not located within a Mine Subsidence District or an area of former mine workings. The site is not located in proximity to HV powerlines or telecommunications infrastructure that may have EMF considerations. No mitigation measures specific to the matters above are required.
Coastal Risks	The site is not located within an area affected by coastal risk or identified in SEPP (Resilience and Hazards) 2021. No further assessment is required. No mitigation measures associated with coastal risk above are required.
Aviation	A review of airspace / aviation requirements has been undertaken which confirmed that the site is not impacted by the Obstacle Limitation Surface (OLS), however the southern fringe of the site is located within the ANEF 20 contour associated with Sydney Airport. The ANEF contour has been reviewed and assessed within the NVIA with associated mitigation measures provided in **Appendix 1** relating to construction standards to mitigate the intrusion of aircraft noise.

6.11 Cumulative Impact

The department proposes to undertake additional exempt development works within Randwick High School that will be subject to independent programming. It is not anticipated that these two works packages will combine to generate any cumulative impacts. Notwithstanding this, the CEMP prepared for the proposed activity will consider any other works being undertaken within the site.

Key cumulative impacts are associated with construction activity across the site, including any works being undertaken within separate works packages. Impacts have been assessed collectively through this REF and studies that have been prepared to support the proposed activity.

Construction activities associated with the proposed activity are temporary and expected to occur over a period of approximately 10 months. There are no known activities or proposed activities within the site or in the vicinity of the site and hence the cumulative impacts are limited to those impacts arising from the proposed works that are outlined in this REF.

Those impacts have been assessed as being minor and/or temporary (in the case of the construction activities) in nature and can minimised or mitigated to an acceptable level such that they are not considered to result in significant adverse cumulative impacts upon the amenity of site or surrounding area.

Furthermore, it is considered that the long-term benefits of the proposed activity will outweigh the short-term impacts that may occur during the demolition and construction phases

6.12 Consideration of Environmental Factors

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 Division 5.1 of the EP&A Act. These factors are summarised at Table 16 and where mitigation measures have been proposed in response to the factor, these have been identified.

Table 16: Environmental Factors considered

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
Any environmental impact on a community?	(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. (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: (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	Key impacts that could arise from the proposed activity relate to traffic, flooding, Aboriginal heritage and contamination. Stormwater management is also critical noting the site is located within a flood prone area. These impacts have been duly considered as part of this REF assessment, and where required, mitigation measures have been included to minimise potential impacts where they cannot be avoided. The FERP (see **Appendix 4**) provides a framework for safe flood evacuation of the site and where required, Shelter in Place may be deemed the appropriate outcome subject to a review of inundation of surrounding roads. The upgrade of Randwick High School will have a beneficial impact on the community through the provision of educational services and more specifically a new administration / classroom building and a lecture theatre. During construction works, there are anticipated to be some impacts relating to noise, dust and traffic. These impacts are temporary and considered to be acceptable, subject to the implementation of mitigation measures, including the preparation of a detailed CNVMP and CTPMP. The REF has considered the nominated environmental factors for schools to their fullest extent, and has concluded	GMM5 CEMM1 CEMM3 PACMM1 CMM2 CMM4 CMM13 CMM14 CMM15 CMM17 CMM18 CMM19 CMM20

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
	(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 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	that the proposed activity is unlikely to have any significant impact on the Randwick community.	UIMM6 NVM1 NVM2 NVM3

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
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 works relate to the upgrade of an existing / established school. The upgrade will provide for the educational and employment needs of the local area and the scale of development will not generate any transformation of the locality. As demonstrated in this REF report, the proposal has been designed to minimise impacts on the surrounding area. There are not anticipated to be any cumulative impacts associated with the development. Any potential cumulative impacts that may arise will be addressed via the methods and management stipulated in the CEMP to be prepared at construction stage.	No mitigation measures required.
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	Subject to the implementation of relevant erosion and sediment control and construction management mitigation measures, the proposed development will not result in environmental impacts on the ecosystems of the locality. Replacement planting for removed trees will further assist in the upgrade of the site.	CMM2 TMM1 TMM2 SWM1

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
	(iv)impacts of the above on urban heat island effect and urban and internal comfort levels on and off-site (c3) impact from introducing new trees and vegetation species (c4) cumulative impacts on the ecosystem		
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	The proposal will not result in a reduction of the aesthetic, recreational, scientific or other environmental qualities of the locality. To the contrary, the proposed upgrade works will contribute to the aesthetic, recreational and scientific value of the locality through purpose built infrastructure for the benefit of the local community. The proposed activity is consistent with the character of the area, incorporating significant landscaping, replacement tree planting and architectural elements that soften the built form and maximise visual appeal. The design benefits from appropriate setbacks, planting, and facade articulation to reduce visual impact on surrounding school buildings and the wider locality.	No mitigation measures required.

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
	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		
Any effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?	(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 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	The ACHAR included test excavations that identified a total of 5 subsurface Aboriginal artefacts divided between a low-density artefact scatter to the north of the project area, Randwick HS AS-1(45-6-4159), and two isolated artefacts to the south within the proposed activity footprint, Randwick HS IA-1 (45-6-4158) and Randwick HS IA-2 (45-6-4157). All three sites were assessed as being of low scientific significance. Both Randwick HS IA-1 and I-A2 will be subject to 'total loss' meaning that the items cannot be retained in-situ due to unavoidable development conflict with the proposed activity being assessed in this REF. An AHIP will be required to impact the following sites relevant to the proposed activity as stipulated in the mitigation measures attached in Appendix 1: • Randwick HS IA-1 (45-6-4158); and • Randwick HS IA-2 (45-6-4157). The site is not local or State heritage listed nor is it located within a Heritage Conservation Area. The site is not	CMM2 CMM24 UIMM1 HMM1 HMM2 HMM3 HMM4 HMM5 HMM6 HMM7 HMM8

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
		identified on the department's Section 170 Register for heritage however two sub surface stormwater pipes within the school are identified on the Sydney Water Section 170 Register. The proposed activity will not impact these pipes as demonstrated above. The s170 items have no curtilage overlap with the works and the impacts to adjacent heritage items have been assessed by the project Heritage Impact Statement. .	HMM9
Any impact on the habitat of protected animals, within the meaning of the *Biodiversity Conservation Act 2016*?	(f1) impacts on listed protected fauna at and in the vicinity of the site, and their habitat.	Subject to fauna clearance surveys prior to construction (refer to mitigation measure TMM2), the EA confirmed the development was unlikely to impact the habitat of any protected animals within the meaning of the Biodiversity Conservation Act 2016.	CMM2 TMM1 TMM2 Refer to Appendix 1
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 EA confirmed the proposal is unlikely to result in any impacts to the habitat of protected animals and the works are unlikely to endanger any species of animal, plant or other form of like, whether living on land, in water or in the air.	No mitigation measures required.
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	As demonstrated throughout this REF assessment, the proposed Randwick High School upgrade will not result in any long-term effects on the environment. Overall, the activity will have a long-term positive effect on the local environment by providing the local community with new educational infrastructure to serve the local population into	CMM2 TMM1 TMM2

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
	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 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	the future. The site is flood prone however the FIRA (see **Appendix 3**) confirms that the proposed activity will not impact flood behaviour offsite to a degree that would impact any surrounding development. Accordingly the proposed activity will not generate any long term flood impacts on the environment and the FERP (see **Appendix 4**) will be used to guide the early evacuation of the site or secondary shelter-in-place measures in the event of a significant flood event. Any potential impacts associated with the activity will be temporary and managed through mitigation measures.	OPFMM1 SCMM1
Any degradation of the quality of the environment?	No specific factors	The construction phase of the proposed development will result in some short-term degradation of the environment which, subject to the implementation of mitigation measures relating to remediation of the site, noise, erosion and sediment control and construction management, can be appropriately managed by the contractor.	CMM2 CMM14 CMM15

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
			CMM17 CMM18 CMM19 CMM21 SWM1 LCMM1 LCMM2 LCMM3 LCMM4 LCMM5
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.	The development has been designed with regard to the environmental constraints of the site and subject to compliance with the mitigation measures, the proposed development will not result in any risk to the safety of the environment. The site is flood prone and flood risk and evacuation have been comprehensively assessed in the FIRA (see **Appendix 3**) and the FERP (see **Appendix 4**). The	CMM2 SWM1 OPMFF1

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
	(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.	proposed activity will not generate any unacceptable flood risk to life or property and will not generate unacceptable flood impacts to flood behaviour off site.	
Any reduction in the range of beneficial uses of the environment?	No specific factors	The development comprises the proposed upgrade of an existing school and therefore will not give rise to any reduction in the beneficial use of the environment.	No mitigation measures required.
Any pollution of the environment?	(l1) any pollution during construction and post construction e.g. 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)	Potential impacts associated with pollution are capable of being managed through the implementation of relevant mitigation measures during the construction phase of the development via the CEMP. Operation of the development will not give rise to any pollution impacts to the environment noting that water quality treatment measures will be implemented to filter stormwater runoff from the new buildings and supporting infrastructure.	CMM2

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
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	Waste will be managed in accordance with the WMP prepared for the proposed activity and mitigation measure OPMM1. The WMP has considered the waste generation associated with the demolition, construction and operational phases of the proposed site upgrade.	OPMM1
Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?	No specific factors	The proposal is unlikely to result in any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply.	No mitigation measures required.
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	Cumulative impacts are discussed in Section 6.10 of this REF. There are no immediate cumulative impacts that would arise noting that a separate exempt development works package will be programmed to avoid any adverse cumulative impact on the site or surrounding development. Notwithstanding, mitigation measures associated with the management of construction are provided in **Appendix 1** to mitigate any potential cumulative impacts should they arise due to program changes.	GMM5 CEMM1 CEMM3 PACMM1 CMM2 CMM4 CMM13 CMM14

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
			CMM15 CMM17 CMM18
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 scenario	N/A – site is not located within an area subject to coastal management controls.	No mitigation measures required.
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	A review of the relevant strategic plans and legislative context is provided as part of Section 4.4. The proposed activity is consistent with the provisions of the Sydney Region Plan, Eastern City District Plan and the Randwick Local Strategic Planning Statement.	No mitigation measures required.
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,	All other environmental factors have been considered and assessed in this REF. Required mitigation measures are provided at **Appendix 1**.	No mitigation measures required.

Environmental Factor	Division Factors for school developments *Guidelines for Division 5.1 assessments* *Consideration of environmental factors for health services facilities and schools*	Consideration	Mitigation Measure Reference
	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		
Section 171A of the EP&A Regulation		The site is not located within a regulated water catchment and further assessment is not required.	

7. Justification and Conclusion

The proposed upgrades at Randwick High School are subject to assessment under Division 5.1 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 outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an existing 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 or a BDAR to be prepared.

The environmental impacts of the proposal are not likely to be significant. Therefore, it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act. On this basis, it is recommended that the department determine the proposed activity in accordance with Division 5.1 of the EP&A Act subject to the implementation of mitigation measures identified within this report and at **Appendix 1**.