



# Liverpool Boys and Girls High School Upgrade

Preliminary Construction Management Plan (PCMP)

# 31 January 2025

Prepared for:

**Department of Education (DoE)** Level 8, 8 Central Ave Eveleigh NSW 2015 Prepared by:

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# Introduction and Declaration

#### Introduction

This Preliminary Construction Management Plan (PCMP) has been prepared by Colliers on behalf the NSW Department of Education (the **Applicant**) to assess the potential environmental impacts that could arise from the redevelopment of the Liverpool Boys High School and Liverpool Girls High School, at 18 Forbes Street, Liverpool NSW, 2170 (the **site**).

This PCMP has been developed during the Schematic Design phase and contains preliminary construction methodologies for the delivery of this project. It is envisaged that this PCMP will evolve and be further developed by the Contractor when appointed to deliver the Main Works in conjunction with the design consultant team, project stakeholders and DoE. It is noted that it is the responsibility of the Contractor to prepare detailed Environmental and Site Management Plans in accordance with the REF Mitigation Measures, for implementation during construction.

This report accompanies a Review of Environment Factors that seeks approval for redeveloping the Liverpool Boys and Liverpool Girls High Schools into a single co-educational school, including:

- Construction and operation of a six-storey school building, including school hall and gymnasium;
- Associated parking and building services;
- Tree removal;
- Associated landscaping and play spaces;
- Augmentation of service infrastructure; and
- Associated off-site infrastructure works to support the school, including (but not limited to) services, kiss and drop point and pedestrian crossings.

Refer to the Review of Environmental Factors prepared by Ethos Urban for a full description of works.

# Site Description

The site is located at 18 Forbes Street, Liverpool, within the Liverpool Local Government Area (**LGA**). The site is legally described as Lot 1 DP1137425 and has a total area of approximately 74,973m<sup>2</sup>.

The site comprises a broadly rectangular portion of land which currently contains the existing Liverpool Boys High School, Liverpool Girls High School, and the Gulyangarri Public School, which commenced operations in January 2024 and is located to the east of the wider site.

The site's western portion contains Liverpool Boys High School and Liverpool Girls High School. Liverpool Girls High School in the site's southwest comprises three, two-storey buildings. Liverpool Boys High School in the site's northwest, comprises approximately four, two-storey buildings, with adjacent at-grade carparking and various sports courts.





Figure 1: Site Aerial - Source: Nearmap, edits by Ethos Urban

# Significance of Environmental Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts are low and will not have significant impact on the locality, community and/or the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is no significant impact on the environment.



# Site Operations

Following appointment, the Principal Main Works Contractor will be obliged to develop and provide for use a detailed Construction Environmental Management Plan/s that will incorporate WHS, Environmental and Quality management as well as all relevant sub-plans including (but not limited to):

- A site-specific WH&S Management Plan
- Environmental Management Plan
- Biodiversity Management Plan
- Soil and Water Management plan
- Construction Waste Management Plan
- Traffic Control Plan
- Traffic and Pedestrian Management Plan
- Construction Noise and Vibration Management plan (CNVMP)
- Dust/ Air Quality Management Plan
- Access and Movement Plan (for construction staff).

Preliminary sub-plans and assessments to inform some of the above have been provided to support the REF and are referred to in this PCMP. This plan will be developed specifically for the subject site and contract works. The plans will take into consideration site specific risks that have been identified and document the implementation of control measures to effectively mitigate those risks.

All statements and proposals documented in this PCMP will be further detailed at the time of contract award for the works to ensure alignment with the proposed methodologies and construction staging of the Contractor.

#### **Key Milestones**

The Master Programme has been developed to achieve the Milestones shown in Table 2. The Master Programme will be monitored closely, and any changes to milestones will be approved via the Project Control Group (PCG). The assumptions embedded in the Master Programme include the project works packages, town planning strategy and procurement strategy in the following sections as well as time allowances for delay contingencies (float).

Milestone Name	Indicative Completion Date
Phase 4 – Detailed Design	9 February 2026
Construction Completion	8 October 2027
Asset Data Capture Milestone	16 July 2027

Table 2: Key Milestones



# Legislative and Regulatory Requirements

The works will be undertaken in accordance with the following legislative requirements and any others that must be complied with, as required:

- National Construction Code 2019 Amdt 1 comprising the Building Code of Australia;
- Applicable Australian Standards;
- Protection of the Environment Operations Act and Regulations;
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA);
- Environmentally Hazardous Chemicals Materials Act 1985;
- Protection of the Environment Administration Act and Regulations;
- Work, Health and Safety Act 2011 and relevant codes of practice and Standards;
- Work Health and Safety Regulation 2017;
- Code of Practice for the Safe Removal of Asbestos (NOHSC:2002(1998));
- Resource and Recovery Act 2001;
- Environmental Planning and Assessment Act 1987;
- Heritage Act 1997;
- Local Government Act 1993;
- Soil Conservation Act 1938;
- Threatened Species Conservation Act 1995 and Regulation;
- Biodiversity Conservation Act 2016;
- Native Vegetation Conservation Act 1997; and
- Australian Standard 4970-2009: Protection of Trees on Development Sites

#### **Hours of Construction**

The hours of demolition or construction including delivery of materials to and from the site shall be restricted to between:

- Monday to Friday inclusive 7.00am to 6.00pm.
- Saturday 8:00am 1:00pm
- No work permitted on Sundays and Public Holidays

#### Safety

The Contractor is responsible for the construction work at all times until the work is completed under the Contract and is engaged as principal contractor and manager and controller of the premises for the construction work under Clauses 293 and 298 of the Work Health and Safety Regulations (NSW) 2017 (WHS Regulations). The Contractor is authorised to exercise such authority of the person conducting a business or undertaking that is commissioning the construction project as is necessary to enable it to discharge the responsibilities of principal contractor and manager and controller of premises imposed by the Work Health and Safety Act (NSW) (WHS Act) and Chapter 6 of the WHS Regulations.

A site-specific WH&S management plan will be developed by the Contractor to demonstrate the commitment of the Project to Workplace Health & Safety (WH&S). The plan will identify the scope of work to be undertaken, the hazards associated with the work and the risk assessment processes and risk control measures to be used in the execution of the plan. The Contractor must include procedures for identifying and managing risk and how this will be monitored and managed to ensure employer and employee compliance with these systems.

The Contractor will maintain accreditation under the Australian Government Building and Construction WHS Accreditation Scheme (the Scheme) established by the Building and Construction Industry



Improvement Act 2005 (BCII Act) while building work (as defined in section 5 of the BCII Act) is carried out. The Contractor must comply with all conditions of Scheme accreditation.

The objectives of the WH&S Management Plan include the following:

- Maintain lost time injury reporting and review positive performance indicators;
- Report all incidents and near misses and develop corrective action plans;
- Conduct Senior Management and WH&S Group reviews;
- Develop required WH&S resources;
- Formalise regular senior management reviews of WH&S systems and implement relevant improvements;
- Continually develop WH&S systems, policies, procedures and WH&S Plans to comply with statutory
- requirements and industry best practice;
- Maintain an Audit Program to comply with system's requirements;
- Ensure all corrective actions and non-conformances are closed out;
- Meet or exceed the requirements of AS4801 certification and Federal Safety commission accreditation;
- Adopt a zero-tolerance safety philosophy;
- Provide Safety Awareness and other appropriate WH&S training;
- Continue to implement ongoing induction procedures on all Projects;
- Hold regular Consultative Committee meetings, maintain minutes and record actions;
- Issue Safety Alerts to all staff and other stakeholders according to requirements;
- Conduct weekly toolbox talks on site and maintain a register of attendees;
- Maintain a data base of all toolbox talks.

The WH&S MP will also address the following:

- WH&S training identification of WH&S training needs of all personnel, induction training, refresher training, attendance of WH&S committee personnel at consultation training etc.;
- Incident management identifies who will be available during and outside normal working hours to prevent, prepare for, respond to and recover from illness/ injury and incidents;
- Site safety rules As a minimum will include induction and safety training, PPE, Site access and security, procedures for emergency situations, illness and injury, protection of personnel and the public, work at elevated areas, safe working, hazardous materials and dangerous goods etc.;
- Safe Work Method Statements All activities assessed as having WH&S risks require a SWMS to be prepared and implemented.

# Site Fencing, Public and Property Protection

The general principle is to separate construction areas of work from the public, school staff and visitors. Where there is a cross-over, this will be managed to ensure safety of all persons and equipment.

Appropriate hoarding/fencing (as specified in Australian Standards and SafeWork NSW requirements) will be installed to prevent public and staff access and to maintain security for the various areas of the works.

Site Notices will be erected at the boundary of the site. The site notices will include details of; Principal Contractor details, name of Site Manager and 24-hour contact number, approved hours of work, and details of the Principal and other appropriate stakeholders. Safety related statutory signage will also be erected on the boundary of the site in accordance with WorkCover requirements.

Site, precinct information and pedestrian signage and any temporary pedestrian measures required will be installed and maintained for the duration of the construction works..



These public and property protection measures will be reviewed at the time of contract award and during regular PCG meetings, to ensure alignment with proposed preferred methodologies and construction stage and to ensure that the safety of the public and staff is maintained at all times during the works.

Potential nuisance will be minimised to the occupiers of adjacent areas wider site. Typically, works will be hoarded off and completely segregated from public interaction. When interacting with adjacent spaces, the Contractor will ensure strict compliance with pre agreed operational methodologies.

#### Security

Security measures must be provided to prevent unauthorised access to adjoining land and the construction work site including the safeguarding of site materials, plant and equipment. Security measures will be in place at all times when the site is not in operation. This may include perimeter barriers, locks, surveillance systems, security lighting and motion detectors. In the event where a construction site cannot be fully secured, consideration will be given to the use of a security service to prevent unauthorised access.

## Complaints and Neighbour Management

From the commencement of construction until completion, the Principal Contractor will be required to maintain a community liaison officer on the project. This officer will be contactable by both a mobile phone and email and the contact details will be clearly advertised on site hoardings, community updates and the like. The Principal Contractor will be required to maintain a register of complaints and to report to the Project Manager and SINSW the status of complaints on a monthly basis. Complaints that cannot be addressed by the Principal Contractor will be presented to the relevant representative for resolution of the issue.



# Construction Methodology

## Remediation / Validation

The Contractor will be provided with a Remediation Action Plan (RAP) prepared by JBS+G as part of tender documentation. This document will detail the following:

- Site assessment: An evaluation of the contamination levels at the site
- Remediation methods: The proposed methods for cleaning up the contamination
- Regulatory compliance: The steps required to meet environmental regulations
- Environmental safeguards: The measures to ensure the remediation is safe for people and the environment
- Schedule: The timeline for completing the remediation

The contractor is to remediate the site as per the procedure within the RAP and detail the safe work method for completion of this task within their overall CMP.

#### Soil Erosion & Sediment Control

The soil erosion and sediment control will be implemented in accordance with the Storm Water Management Plan(SWMP), provided with this REF Application.

### **Environment & Amenity**

The contractor undertaking the works will be required to submit for approval a comprehensive Environmental Management Plan (EMP) to ensure that all elements of the plan meet all statutory requirements, Conditions of Approval as well as the DoE's requirements. The EMP will describe the environmental strategy, methods, controls, and requirements for the execution of the works. It will stand alone as the master document for site environmental activities.

The primary aim and objective of the EMP will be to provide a framework of procedures to minimise the impacts of the construction of the project on the environment. The environmental performance of the contractor will be monitored throughout the works.

As a minimum, any further erosion and sediment controls required for the Main Works shall be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction 'The Blue Book' 2004 (4<sup>th</sup> edition) and/or details provided by project engineering consultants.

#### Construction worker and vehicle numbers

The numbers of construction personnel onsite will fluctuate dependant on the stage of the works. It is expected approximately 120 additional jobs will be created during the construction phase. At present the peak personnel per day is unknown. The Contractor will be required to undertake an analysis of the required workforce in accordance with the noise, traffic and physical distancing requirements at all stages of construction, this will be incorporated within the Construction Management Plan (CMP).

The estimated generation of heavy vehicle traffic during the construction of the Main Works will be confirmed by the Main Contractor and detailed within their finalised CMP, however there are estimated to be approximately 175 vehicles per day. These movements would likely be spread across the day and would include vehicles such as a concrete, articulated haul or delivery trucks.



## **Traffic Management**

The Liverpool Boys and Girls High School Traffic consultant, TTW, have developed a Construction Traffic Management Plan (CTMP) in line with the project REF requirements. This is included in the Traffic Impact Assessment (TIA) report included in this REF Application and should be read in conjunction to this PCMP.

## Traffic and Pedestrian Management Plan

Prior to construction works commencing, the Principal Contractor will develop a Construction Pedestrian and Traffic Management Plan which will detail how traffic, pedestrian and cyclist access will be managed during the construction works.

Traffic flows and vehicle/pedestrian separation are a major consideration and pedestrian routes are to be maintained throughout construction. Traffic control personnel will be provided by the Principal Contractor during operating hours, or as advised by the Principal Contractor within their Construction Pedestrian and Traffic Management Plan.

Key issues for traffic, pedestrian and cyclist management during construction to be considered in the Construction Pedestrian and Traffic and Management Plan include, but is not limited to:

- Provide safe and uninterrupted access for pedestrians and vehicles accessing the construction site school site;
- Ensure maximum safety of site personnel, pedestrians, cyclists, commuters, and drivers;
- Minimise environmental nuisance and impact as a result of construction traffic;
- Ensure construction traffic does not unduly interrupt existing traffic flows on the local road network;
- Safe operation of buses and other transport services during construction in adjacent roads;
- Have no vehicles arrive at the site, without prior arrangement, outside the approved working hours:
- Encourage site workers to utilise local public transport system and car sharing wherever possible;
- Timely and effective implementation of traffic management measures;
- Maintain access at all times for school and stakeholder's deliveries

Pedestrian and vehicular movements into and around the site will be maintained, or alternate routes determined where necessary, and be defined by clear signage. Where necessary, physical traffic management personnel will be used to guide pedestrians and vehicles safely.

Temporary hoarding appropriate to the interaction between pedestrians and construction works (as per relevant codes and standards) will be constructed to prevent unauthorised access to the construction site. These hoardings and fences may be staged to allow for appropriate construction methodologies to be planned.

Deliveries to within the site will be managed through the existing roads around the site as agreed with the Project Manager, surround schools and DoE. Relevant management controls to be implemented as required.

Materials will be staged and stored in such a way to promote a clear and safe work site. At all times, materials are to be stored safely within the work area or site compound. While loading and unloading vehicles, it will be clearly stated that vehicles must not obstruct roads, driveways and paths of egress from surrounding buildings or fire protection equipment.



### Construction Entry / Exit

The following should be read in conjunction with the Overview CTMP, included in the TIA developed by The LBGHS Traffic consultant, TTW. A detailed Traffic and Pedestrian Management Plan will be prepared by the Contractor for the Project.

It is therefore anticipated; construction vehicles will access the site via Lachlan St or Forbes St as per the below.

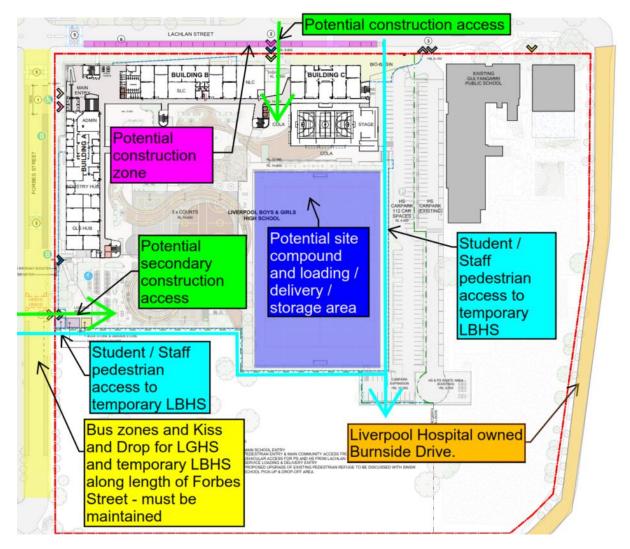


Figure 2: Proposed Site Plan

# Heavy Vehicle Access and Parking

The TTW CTMP outlines all of the anticipated construction vehicle routes to/ from the site, with the aim of minimising the impact of construction traffic on roads near the site. All heavy vehicle loading is expected to take place mostly during excavation and cut & fill construction activities, within the bounds of the site. Traffic controllers will be employed to manage construction vehicle movements in and out of the site.



### Construction Worker Parking and Amenities Strategy

The TTW CTMP outlines the anticipated construction staff parking and traffic strategy. The contractor will be responsible for providing an onsite parking solution as per Figure 2.

The Contractor is responsible for establishing appropriate site facilities, including site offices, amenities, materials handling, and stockpiling areas, as outlined in Figure 2. The Contractor must develop and provide these facilities within the site, ensuring they are detailed in the Construction Management Plan.

The site is constrained with limited space to provide on-site parking for construction workers and construction worker vehicles will not be permitted to park on local streets surrounding the school site. However, given the site's proximity to public transport services, workers will be encouraged to use public transport to and from the site.

# Noise and Vibration Management

This section is to be read in conjunction with the Noise and Vibration Impact Assessment prepared by Acoustic Studio and submitted as part of this REF lodgement.

Noise from the construction site shall not exceed the limits set out in the Interim Construction Noise Guidelines, EPA and Australian Standards. No machine work will occur outside the approved working hours set unless approval has been given through an agreed approval process with DoE.

The noise and vibration from the use of any plant equipment and/or building services associated with the premises shall not give rise to an offensive noise as defined under the provisions of the Interim Construction Noise Guidelines, EPA and Australian Standards.

As part of noise mitigation for the project, the contractor will be responsible for the management, checking of compliant maintenance regimes and statutory supervision of all equipment.

Guidelines for operational limits, identification of at-risk receivers and implementation of mitigation measures will be provided in a project Construction Noise and Vibration Management Plan. The objectives of the Construction Noise and Vibration Management Plan will be to:

- Ensure that construction works do not significantly impact background noise levels around the school site
- precinct, and that applicable guidelines and regulations are met;
- Ensure all equipment operates within the applicable noise levels;
- Ensure that construction works do not cause sufficient vibration to damage surrounding buildings,
   and
- comply with the applicable guidelines and regulations;
- Vibration does not affect occupiers of the adjoining buildings; and
- Ensure construction methodologies adopted minimise the impact of noise, dust and vibration.
- Reasonable methods (having regard to the use and operation of existing residential buildings in close proximity to the Site) of noise suppression on all compressors, jack-hammers and other machinery of whatsoever will be implemented to ensure that the noise levels emanating from the Site during the works are minimised.

#### Odour/ Fumes Control

Any potential odours, fumes/smoke associated with demolition and construction for the site will be assessed and minimised.



#### Dust

Management of dust prevention strategy is to be developed by the Head Contractor, detailed in the Contractor's Construction Management Plan, liaise with the project stakeholders and acceptable to the Project Manager and DoE.

Examples of dust management practices that will be implemented during the Works include;

- Shade cloth installed on the perimeter fence
- Haulage trucks entering and leaving site will have their loads covered appropriately
- Monitoring of weather conditions (including wind)
- Wherever practical implement a wet process for concrete sawing, coring and grinding
- Where not practical to use a wet process for concrete sawing or grinding direct dust extraction to a vacuum is to be used
- Materials on site are to be stockpiled and stored appropriately
- Limit the use of soil stockpiles, when stockpiles are required, they are to be watered down

#### **Protection of Trees**

The retention and protection of vegetation on the site will be met as per the conditions of approval and in line with the Arboricultural Impact Statement submitted along with this REF.

The Contractor will be required to prepare a detailed site-specific Construction Management Plan. This Plan will need to demonstrate the measures that will protect trees and vegetation being retained under the development works.

For all trees on site, the application of tree protection will be addressed with all trees that are within and close to the boundary of the site. Suitable trunk protection and exclusion zone protection (eg: barrier mesh) will be implemented by the Contractor.

# Waste Management and Recycling Principles

This section is to be read in conjunction with the Construction Waste Management Plan (CWMP) prepared by Elephant's Foot and submitted as part of this REF lodgement

The Contractor will be required to recycle and reuse materials where possible. The contractor will be required to arrange for the sorting and recycling of waste materials and packaging to ensure maximum recycling is achieved. The contractor will be committed to achieving compliance with the EPA guidelines

# Storage of Dangerous Goods

Dangerous goods (such as petrol, diesel, oxy-acetylene, oils etc.) will be stored in a lockable compound with sufficient ventilation, bunding, hard surface and located away from waterways and drains in accordance with relevant codes of practice and standards. Material safety data sheets on all of these flammable and potentially harmful liquids will be provided by the contractor undertaking the Works.

#### **Services Diversions**

During the Works, should any services diversions require to be undertaken, the following principles are to be followed:

Any required services diversions/disruptions will be undertaken with full coordination, development and input with relevant SINSW, DoE and authority stakeholders and will only proceed via an approval process and appropriate consultation with the relevant service providers.



- Impacts on the surrounding residential housing will be kept to the absolute minimum, which may result in 'Out of Hours' work.
- At all-times public safety will be paramount and visitor safety, access and security maintained.

# **Dilapidation Report**

Prior to commencing the Works onsite and at completion, the appointed Principal Contractor will generate a Pre and Post Dilapidation Report. It is the Contractors responsibility to ensure the report considers all areas reasonably impacted by the Works. At a minimum the reports will consider the following areas:

- Infrastructure and services within reasonable proximity to the works; and
- All areas surrounding the site owned by council, Gulyangarri Primary School and Liverpool Girls High School
- The full extent of the Dilapidation reports will be agreed with the Principal prior to investigations proceeding.



# Conclusion

Subject to implementing the recommendations/mitigation measures set out in Mitigation Measures section of this report, the conclusion of this assessment is that the proposed Works is not likely to significantly affect the environment in relation to Construction Management matters.



# Mitigation Measures

Project Stage Design (D) Construction (C) Operation (O)	Mitigation Measures	Relevant Section of Report
C	The Main Works Contractor will be obliged to develop and provide for use a detailed overarching Construction Management Plan that will incorporate WHS, Environmental and Quality management as well as all relevant sub-plans including (but not limited to):  • A site-specific WH&S Management Plan • Environmental Management Plan • Biodiversity Management Plan • Soil and Water Management plan • Construction Waste Management Plan • Traffic Control Plan • Traffic and Pedestrian Management Plan • Construction Noise and Vibration Management plan (CNVMP) • Dust/ Air Quality Management Plan • Access and Movement Plan (for construction staff).	<ul> <li>Site Operations (Page 6)</li> <li>Safety (Page 7)</li> <li>Environment &amp; Amenity (Page 10)</li> <li>Traffic Management (Page 10)</li> <li>Traffic and Pedestrian Management Plan (Page 11)</li> <li>Noise and Vibration Management (Page 12)</li> </ul>



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