

# Irrawang High School

## Preliminary Construction Environmental Management Plan

Prepared by The APP Group on behalf of School Infrastructure NSW

Rev 01

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# 1. Project Background

## 1.1. Introduction

The following Preliminary Construction Environmental Management Plan (CEMP) has been prepared for the purpose of the Development Application. The project background and the proposed project works have been outlined in the report, noting in summary that the project is an upgrade of Irrawang High School to meet EFSG Stream 6 core facilities. The plan also indicatively describes how the head contractor will manage the noise, vibration, dust, stormwater, erosion, sediment control, hazardous/dangerous goods, quality control plan, industrial relations and neighbouring residents during the construction phase of the development.

Irrawang High School is a government co-educational High School, accommodating approximately 1,000 students from Years 7 - 12. The high school was established in 1983 and draws students largely from the public primary schools in Medowie, Raymond Terrace, Port Stephens and Grahamstown.

The school strives to deliver excellence in academic, cultural and sporting performance. The school has implemented strategies to support the needs of all students, providing classes for support learning students and cultivating the education of gifted and talented students.

Irrawang High School has an approximate site area of 5 hectares. School buildings, both educational and administrative are located in the south-east corner of the allotment. North of the buildings are sporting fields and playground areas. Access to the site is via Mount Hall Road along the southern boundary. Mount Hall Road is identified as a local government road under the maintenance of Port Stephens Council. Pacific Highway is located approximately 150m west of the site. Onsite car parking is provided in the south-west corner of the allotment.

The site in its surrounding locality and context is shown in Figure 1.

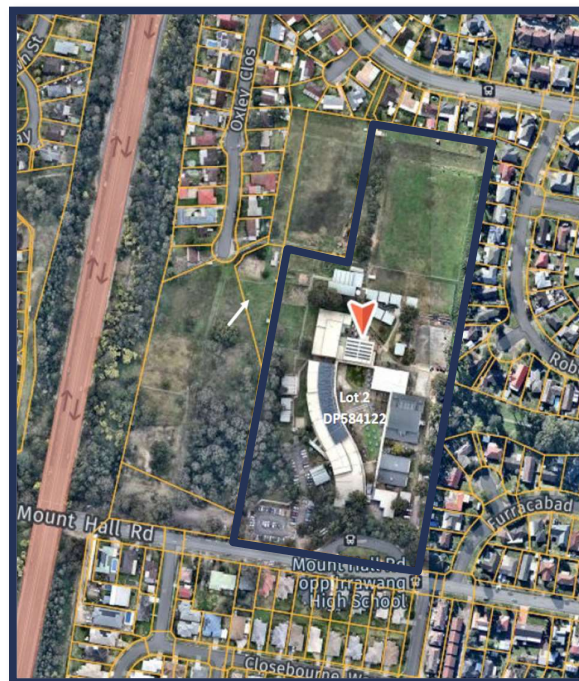


Figure 1: Site Locality Plan

## 2. Proposed Project Works

### 2.1. Overview

The project is an upgrade of Irrawang High School to meet EFSG Stream 6 core facilities. This entails additional new general learning spaces including support classes and refurbishment of existing general learning spaces. The Development Application is for the alterations and additions to Irrawang High School to upgrade existing facilities and provide additional modern learning areas to facilitate education delivery to students.

### 2.2. Demolition and Construction Works

The project scope including costs and timing have now been finalised for this first stage of work. This stage of work has been informed by priorities identified by stakeholders focusing on the provision of the following:

- ▶ A new Learning Hub containing 8 new future-focused general learning spaces and 6 new learning support classes including new Emotional Disorder (ED) and Behavioural Disorder (BD) support classrooms.
- ▶ Refurbishment and extension of the library to align to the core requirements.
- ▶ Demolish existing carparking
- ▶ New external road works and SLS pick-up/drop-off zones
- ▶ Upgrade student and staff amenities
- ▶ Erection of internal covered walkways
- ▶ Construction of new feature entry and covered walkway
- ▶ Removal of 19 trees to facilitate the development site.

### 2.3. Operation

The proposed works will occur during standard school operating hours and will be integrated with the existing educational establishment. The current school operating hours are as follows:

- ▶ Students are on site from 8AM to 4PM on Monday, Tuesday, Thursday and Friday, and from 8AM to 3PM on Wednesdays.
- ▶ Staff are on site from 7AM to 5PM on Monday to Friday.
- ▶ There are school functions and community uses that occasionally occur outside of these nominated student and staff times.

### 2.4. Building Uses and Design

#### 2.4.1. Learning Hub

The new learning hub (NLH) has been designed to provide students with a dynamic learning environment, offering plentiful of opportunities to pursue academic excellence. The building will cater for the changing needs of students, teachers, technologies and educational theologies.



The NLH is a two-storey building containing eight general learning areas, six learning support rooms, four common learning areas, a meeting room, a staff office and amenities for staff and students. The proposed building is 14.186m high above ground level, 50.1m long, 21m wide and with a gross floor area of 1,692m<sup>2</sup>. Figure 2 and 3 shows the furniture floor plan of the NLH.

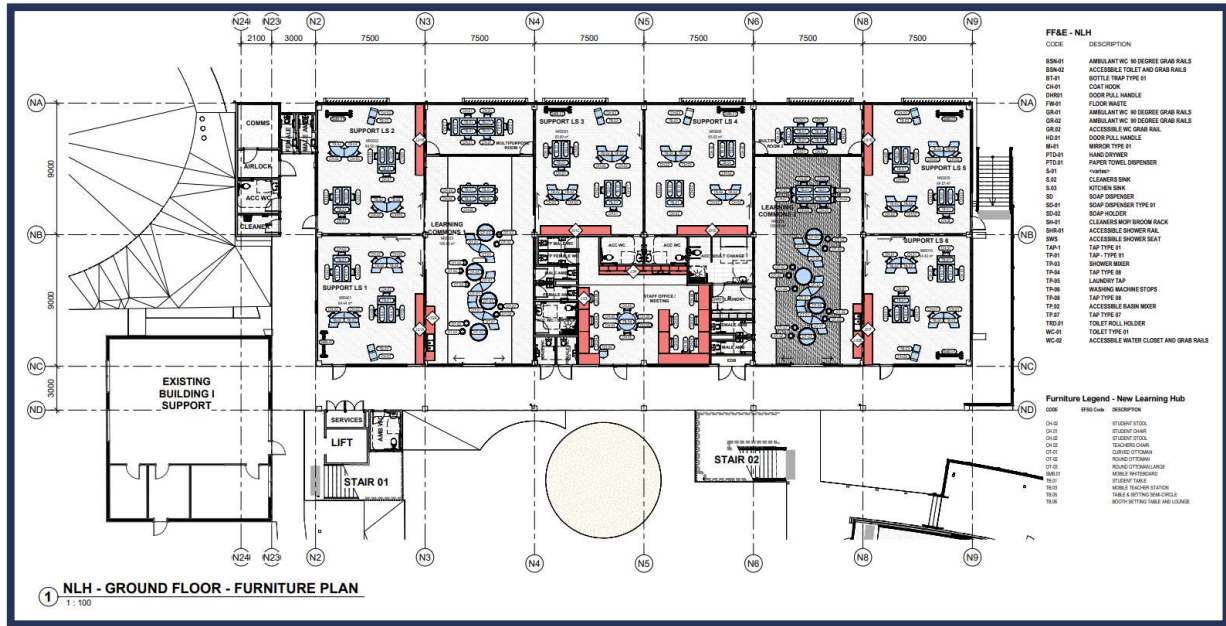


Figure 2: NLH Ground Floor Furniture Plan

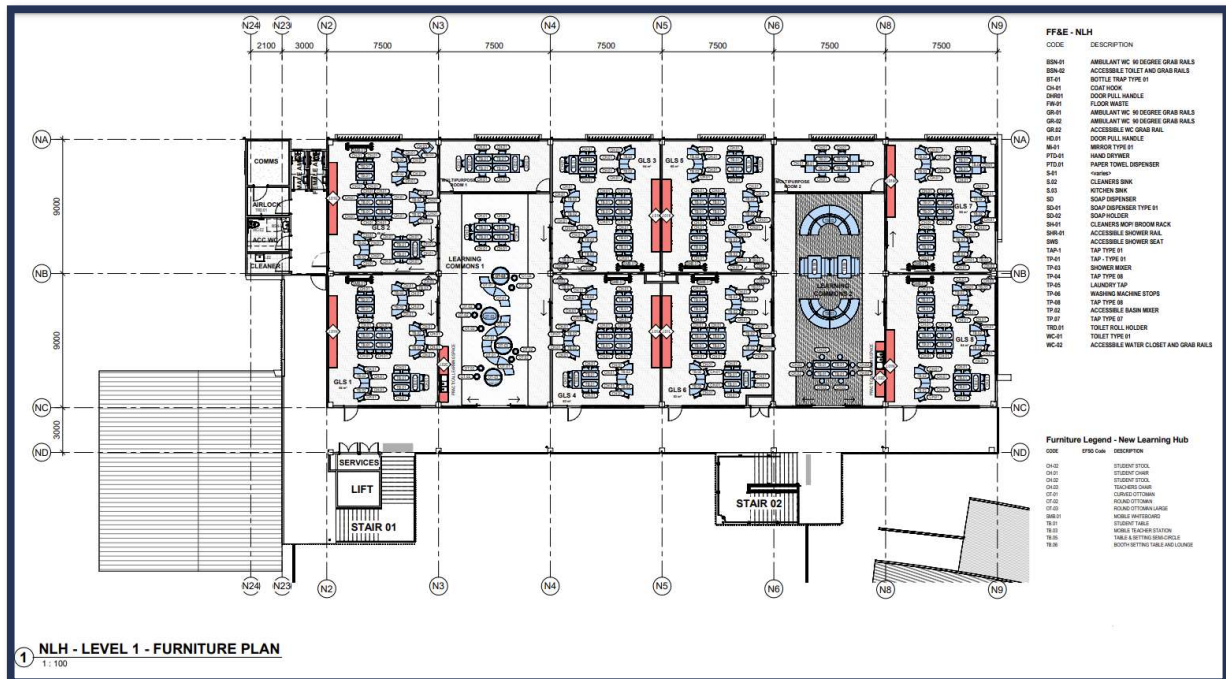


Figure 3: NLH First Floor Furniture Plan

### 2.4.2. Library

The existing library will be undergoing internal refurbishment works to enable a building extension and also modernise the facility. The interior refurbishment works include creating a new study area, learning area, dedicated senior study room and an additional computer room. The extension to the library includes an outdoor undercover area. Figure 4 shows the furniture floor plan of the library.

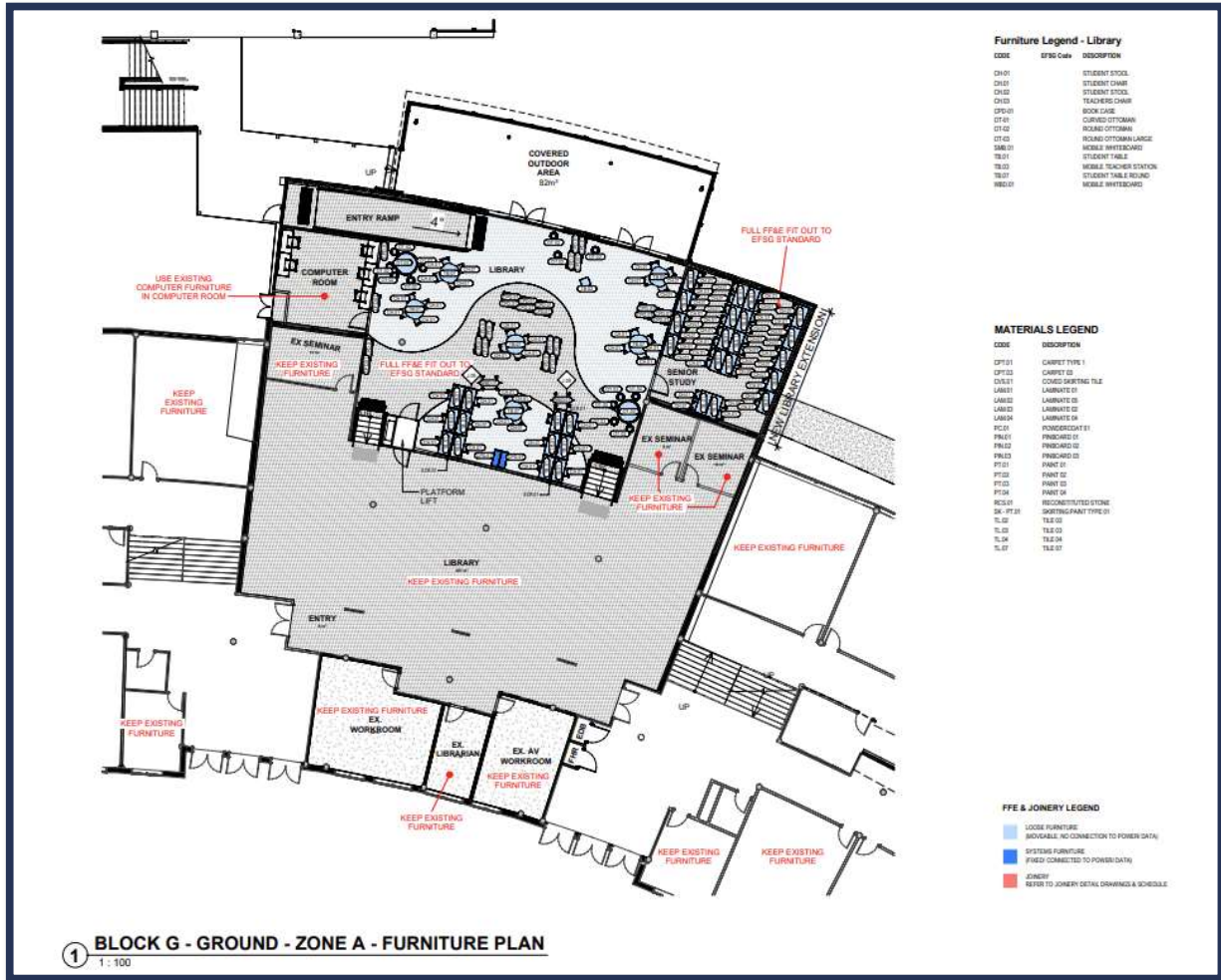


Figure 4: Library Ground Floor Furniture Plan

### 2.4.3. School Entry

There will be a new feature entry constructed to the north of the existing circular drop-off driveway. The feature will use natural materials such as cylindrical hardwood supporting columns and light-coloured vertical timber contrasting against the dark timber roof structure and columns. The feature entry is 4m high above ground level, 8m long, 7m deep and with an area of 55m<sup>2</sup>. Figure 5 shows a render of the feature entry.



*Figure 5: Render of School Feature Entry*

## 2.5. Access and Parking

### 2.5.1. Southern Access

The main access to the site is via Mount Hall Road with a single driveway entry to the south and a circular driveway to the east. There is a new support drop-off bay proposed which is dedicated to mobility impaired students. This drop-off bay will have a new concrete footpath and an accessible covered walkway that connects to the NLH and support unit.

### 2.5.2. Parking

There is an existing car park that consists of 39 parking spaces on the south-western corner of Lot 2 DP 584122 which connects to the proposed support drop-off bay. An informal car park for additional staff and student parking is located west on Lot 11 DP 840996.

## 2.6. Landscaping

The proposed landscaping works includes a range of new screening shrubs and native trees, particularly at the support drop-off bay street. A combination of natural and synthetic turf will be used in the internal recreation areas.

The internal courtyard between the NLH and library will include seating and new landscaping, creating a natural reflective student space. The new feature entry will be complimented by new landscaping around Block A and Block G.



### 3. Environmental Management Plan

#### 3.1. Noise and Vibration

All practicable measures will be taken to reduce the noise arising from the Works. Noise from the Site shall not exceed the limits set out in the Interim Construction Noise Guidelines (ICNG) and Environmental Protection Authority (EPA). No machine work will occur outside approved working hours unless approval has been given by the consent authority.

The following measures are proposed with reference to the ICNG:

- ▶ Use Noise Management Levels (NML's) to identify demolition, excavation and construction noise sources or scenarios that require engineering controls or administrative management;
- ▶ Promote clear understanding of ways to identify and minimize noise from construction works;
- ▶ Focus on applying all feasible and reasonable work practices to minimize construction noise impacts;
- ▶ Provide flexibility in the selection of site - specific and reasonable work practices to minimize noise impacts;
- ▶ Encourage construction/ demolition work to be undertaken within approved standard hours where reasonably practicable with noise that is audible to other premises. Approval is required for works undertaken outside standard hours; and
- ▶ The use of noise reduction techniques including, but not limited to, barriers, enclosures and silencers shall be employed to ensure compliance with construction and demolition noise criteria.
- ▶ It is anticipated that the contractor will adhere to approved Council working hours and/or any departure as outlined in conditions of consent.

As part of the noise mitigation treatment for the project, the Head Contractor will be responsible for the checking of compliant maintenance regimes and statutory supervision of all equipment, such as making sure all trucks and machinery involved in the Works are checked for defective exhaust systems and general servicing. Benchmarks will be used to assess vibration impacts due to the construction works. The noise mitigation treatment proposed by the Head Contractor will be included in the detailed Construction Management Plan.

#### 3.2. Dust

Management of dust prevention strategy is to be developed by the Head Contractor, detailed in the Construction Management Plan and agreed by the project stakeholders. Examples of precautions that will be implemented during the Works include water spraying, the covering of all haulage trucks with tarpaulins, monitoring of weather conditions (including wind) and helicopter down draft. Management and contingency plans will be developed to prevent any foreseeable impacts from dust.

#### 3.3. Stormwater, Erosion and Sediment Control

As a minimum, the erosion and sediment controls for the Works shall be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) and/or details provided by projects civil engineering consultants.



Appropriate elements of the drainage system on the Site will be cleaned out to remove sediments, prior to commencing the Works on site. Drainage of surface run-off will be allowed to flow along existing contours (down slope) with the existing drainage system on site of kerbs, gutters, gully pits, pipes and stormwater runoff passing through installed filtration systems prior to being discharged off-site. The site will be continually cleaned of rubble to minimise possible sediment flow during rainfall periods. Stormwater kerbs and drainage lines will have sediment controls in the form sedimentation socks. Installation of grids or rock on site driveways and in vehicle paths will be utilised to reduce trucks tracking dirt, dust and mud into the public street network.

Stormwater grate inlets surrounding works areas will be covered with geotextile fabric to allow water to enter into drains whilst retaining sediments. Should external surface run - off flow into works areas, it may need to be diverted to reduce sediment transportation. All drainage control devices will be regularly checked particularly during heavy rainfall periods. The Head Contractor will be required to prepare a detailed Stormwater Management Plan which will cover all aspects of stormwater and sediment management and control during construction.

### 3.4. Hazardous/Dangerous Goods

Dangerous goods (such as petrol, diesel, oxy - acetylene, oils, glues etc) will be stored in a lockable compound with sufficient ventilation 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 Head Contractor undertaking the Works. As a result of the proposed Works, there will be no change in the type or quantities of dangerous goods on site, therefore all current practices for the management of dangerous goods will apply at the completion of the Works.

Investigations are being undertaken prior to DA submission to confirm the extent of any contaminated or water charged soils, this is in the form of a Preliminary Site Contamination Report completed by WSP.

A Detailed Site Investigation report and Unexpected Finds Protocol will be provided to the contractor in the RFT package for them to further develop a Hazardous Materials Management Plan. The HMMP is to be prepared in accordance with the requirements of AS 2601 prior to the commencement of any demolition works. If asbestos is identified;

- ▶ Disposal of asbestos materials are to be undertaken only by an appropriately licensed contractor and in accordance with the requirements of the NSW WorkCover Authority and the NSW Office of Environment and Heritage (NSW OEH);
- ▶ All asbestos and other hazardous materials are to be appropriately contained and disposed of at a facility holding the appropriate licence issued by the NSW OEH; and
- ▶ A sign displaying the words 'DANGER ASBESTOS REMOVAL IN PROGRESS' is to be displayed on sites where asbestos materials are identified.

### 3.5. Quality Control Plan

As part of the Quality Control regime, Inspection and Test Plans (ITP's) are to be implemented to help ensure and verify whether work has been undertaken to the required standard and requirements, and that records are kept.

### 3.6. Impact on Neighbouring Residents

Construction and administrative activities need to be planned and managed so that any impacts on neighbouring residents are avoided or minimised. Maintenance and appearance of the site and its boundaries will be paramount to keeping relationships with these residents open and healthy.

### 3.7. Industrial Relations

The Commonwealth Government requires broad and comprehensive application of the National Code of Practice for the Construction Industry (NCOP) and all current industrial relations (IR) legislation. All Subcontractors will also need to comply with the National Code and the Guidelines.

## 4. Environmental and Planning Requirements

The following documents will be issued to the Contractor to define the Projects environmental requirements;

- ▶ Ecological Impact Assessment
- ▶ SBDAR
- ▶ Hazardous Materials Report
- ▶ Preliminary Contamination Assessment
- ▶ Detailed Site Investigation Report
- ▶ Traffic Impact Assessment
- ▶ Statement of Environmental Effects

The Contractor will be required to prepare and submit the following;

- ▶ WHS Management Plan
- ▶ Quality Management Plan
- ▶ Environmental Management Plan
- ▶ Workplace Relations Management Plan
- ▶ Training Management Plan
- ▶ Aboriginal Participation Plan
- ▶ Site Establishment Plan
- ▶ Erosion and Sediment Control Plans
- ▶ Traffic Management Plan - It is anticipated that the contractor will utilise two entrances and install compound and services in the area noted below.



Figure 6 – Indicative Example for Contractor Site Establishment Plan / Traffic Control Plan

## **5. Conclusion**

The head contractor will provide a finalised version of the CEMP, once they have been awarded the contract for the project. The contractor will prepare and submit a WHS Management Plan, Quality Management Plan, Environmental Management Plan, Workplace Relations Management Plan, Training Management Plan, Aboriginal Participation Plan, Traffic Management Plan, Site Establishment Plan and Erosion and Sediment Control Plans in accordance with their CEMP.