

RICHARD CROOKES

CONSTRUCTIONS

GLENWOOD HIGH SCHOOL
1278

UNEXPECTED FINDS PROTOCOL

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REVISION REGISTER

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UNEXPECTED FINDS PROTOCOL TRAINING REGISTER

Name	Project Position	Signature	Trained By	Tool box date

1 INTRODUCTION

1.1 PURPOSE

The management of Unexpected Finds is vitally important for the safety of the workforce, the preservation of artifacts and effective rectification to ensure the correct outcome is achieved. The Unexpected Finds Protocol serves to address the following SSD-23512960 Consent Conditions:

- B15b) an unexpected finds protocol for contamination and associated communications procedure to ensure that potentially contaminated material is appropriately managed in accordance with the recommendations of the Report of Detailed Site (Contamination) Investigation (Ref: 94626.00), prepared by Douglas Partners and dated 12 November 2021;
- B15c) an unexpected finds protocol for Aboriginal and non-Aboriginal heritage and associated communications procedure;

1.2 GENERAL PRINCIPLES

The RCC Unexpected Finds Protocol is separated into two primary sections, 1. Unexpected Finds (Asbestos) & 2. Unexpected Finds (Non-Asbestos). Noting the industry wide push to increase awareness and education around asbestos and the risks associated with the substance, specific reference is made to this as an unexpected find to reflect the Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)].

The Unexpected Finds Protocol is to be utilised & read in-line with Figure 1: Unexpected Finds Protocol – Assessment & Action Flowchart. This flowchart provides a clear & linear approach to the implementation of the protocol such that unexpected finds can be suitably managed in accordance and compliance with SSD-23512960 Consent Conditions.

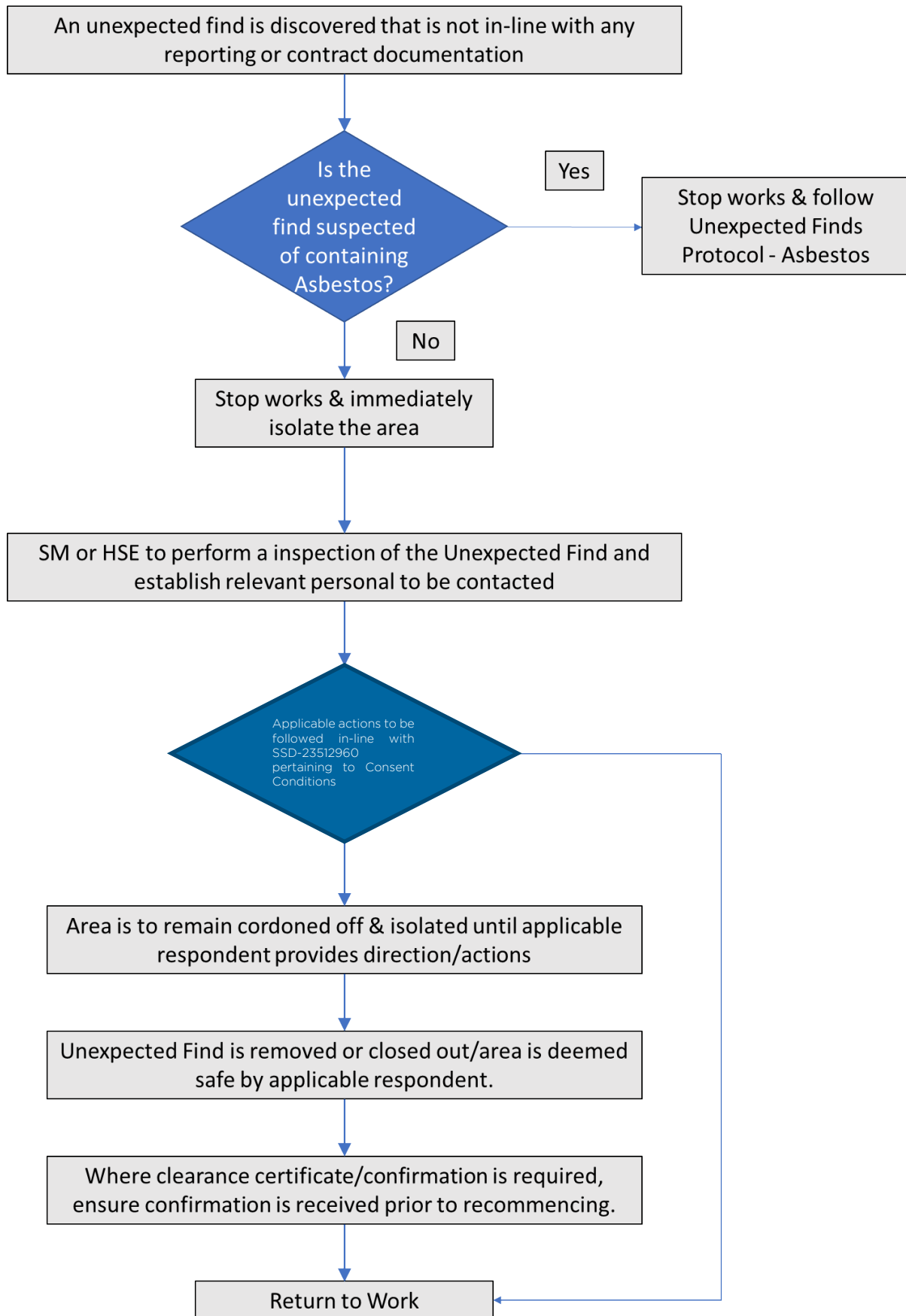


Figure 1: Unexpected Finds Protocol – Assessment & Action Flowchart

2 UNEXPECTED FINDS – ABESTOS

2.1 PURPOSE

The management of asbestos containing materials is important to ensure the Asbestos Containing Material (ACM) are not damaged nor deteriorate to such an extent that site workers, public, external contractors or visitors are unnecessarily exposed to airborne asbestos fibres.

The requirements of the contractor site induction and permit to work system will aid in the management of ACM's throughout the site. Any other unexpected finds that are or could be potentially hazardous will follow the same protocol as ACM.

2.2 GENERAL PRINCIPLES

The RCC's principles of asbestos management have been adapted from general principles published in the Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]. These principles are summarised below:

- Consideration should be given to the removal of ACM during any renovations, refurbishments or maintenance work in preference to other control measures such as encapsulation, enclosure and sealing.
- The WHS Regulation requires all ACM within the construction area to be labelled. (Refer 6.3 Labelling)
- Where ACM is identified or presumed, the locations and type of ACM are to be recorded in the ACM Register located within the Asbestos management plan folder.
- A risk assessment must be performed on all identified or presumed ACM.
- Control measures must be established to prevent exposure to airborne asbestos fibres and should take into account the results of risk assessments conducted for the identified or presumed ACM.
- All workers and contractors on site etc. must be advised of the ACM Register at time of induction, and as requested, permitted access to the register for their review
- Only competent persons should undertake the identification of ACM.
- All workers and contractors on site where ACM are present or presumed to be present, and all other persons who may be exposed to ACM as a result of being on the premises, must be provided with full information on the occupational health and safety consequences of exposure to asbestos and appropriate control measures. The provision of this information should be recorded.
- Reasonable steps must be taken to identify all possible locations of ACM within the site.
- Once a risk assessment has been completed and controls established, a SWMS is to be developed and submitted to RCC'S site management team for approval

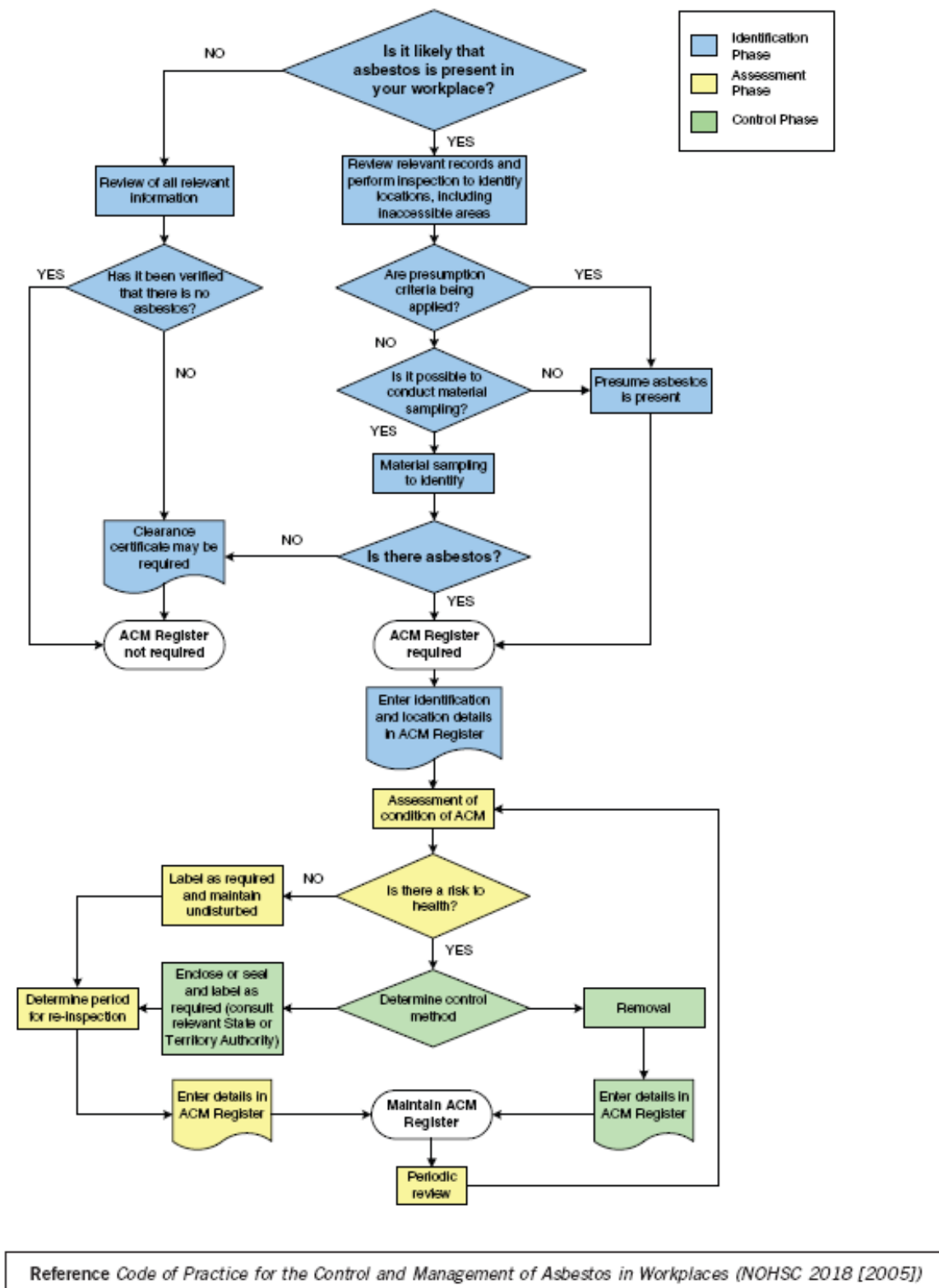


Figure 2: General principles of an asbestos management plan

Source: Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]

2.3 OBJECTIVES

- Remove all high-risk asbestos items where possible.
- Deliver effective asbestos management work programs.
- Ensure that no one is exposed to airborne asbestos fibres.
- Ensure compliance with this Asbestos Management Plan.
- Ensure the asbestos database and register is accurate.
- Comply with State and Commonwealth legislation.
- Remove asbestos containing items when and where possible

2.4 REGULATORY REQUIREMENTS

This asbestos management plan is consistent with removal, encapsulation, transport, and disposal or otherwise potential disturbance of asbestos containing materials. All these activities shall be performed in accordance with relevant Commonwealth and State Acts, Regulations, Codes of Practice, Advisory Standards and Industry Standards.

2.4.1 STATE LEGISLATIVE REQUIREMENTS – NEW SOUTH WALES, ACT & QUEENSLAND

Relevant State legislation includes:

- Work Health and Safety Act 2011
- Work Health and Safety Regulation 2017

2.4.2 CODE OF PRACTICE/GUIDES

Key Codes of Practice and Guidance Notes include:

- Code of Practice for the Management and Control of Asbestos in the Workplaces [NOHSC: 2018 (2005)].
- COP- How to Manage and Control Asbestos in the workplace - Oct 2018
- COP- How to safely remove asbestos - Oct 2018

2.4.3 RCC REQUIREMENTS

- Project Managers (PM) /Site Managers (SM) must be notified before asbestos removal work commences.
- Any new asbestos identified must be explicitly notified to the PM/SM.
- All Staff and Contractors must comply with this Plan.
- Tenants and other interested parties must be notified of the asbestos removal work in advance and asbestos awareness training shall be made available to those persons affected by the asbestos work.

2.5 ORGANISATIONAL RESPONSIBILITIES

Person/Party	Responsibility
Construction Manager (CM), Project Manager (PM)	<ul style="list-style-type: none"> Ensure all staff and contractors are aware of and comply with the plan. Project management Identification and bringing to the attention of appropriate staff, any suspect material Ensure all contractors working on asbestos are aware of and meet the requirement of the plan. Notify Adjacent neighbours, property owners work type and time frame
Site Manager (SM) Health Safety and Environmental Coordinator (HSE)	<ul style="list-style-type: none"> Obtain from Subcontractor, copy of Safework Notification (Requirement of RCC Asbestos removal permit) Ensure project personnel (including contractors) are inducted Surveying, identification and arranging for sampling of suspected asbestos containing materials by competent persons. Training and awareness RCC relevant staff Manage the asbestos works program and removal program Respond to incidents Document preparation, recording and filing Manage asbestos inspection contractor
Contractors (C) and Trades Staff (TS)	<ul style="list-style-type: none"> Not to impact on an ACM without complying with the plan To bring to the attention of the SM/HSE any suspect material Refer to the plan for guidance to identify, manage, and remove asbestos Apply for Asbestos Permit to Work when performing asbestos removal work that requires notification. Undergo RCC Contractor Induction Develop a site specific asbestos removal control plan, SWMS and Risk Assessment prior to performing the asbestos removal work

2.6 CONTROL OF ASBESTOS HAZARDS

As part of the asbestos survey or subsequent resurvey, a 'Competent Person' is required to assess the risk posed by the ACM by completing a Risk Assessment; this will determine what, if any, control measures may be required. Generally, there are four control options available to select:

- Leave in-situ and manage
- Seal/encapsulate
- Enclose/isolate
- Remove

The controls are to be appropriate to the risk of the ACM in question. The following information should be used as a guideline when determining the correct control measure for management of the ACM risks.

If the ACM is friable, and there is a risk to health from exposure, it should be removed.

If the ACM is bonded and in a stable condition, encapsulation may be appropriate if the ACM is unsealed. Encapsulation is not necessarily required if the ACM is unsealed but it does provide another "barrier" to the potential release of asbestos fibre as well as prolonging the lifespan of the material by providing protection against UV and environmental elements etc.

ACM that are bonded, stable and sealed, which are unlikely to be disturbed during normal activities, can be left in-situ and managed, but need to be recorded in the ACM Register.

ACM within the works zone must be removed prior to the commencement of demolition, partial demolition, renovation or refurbishment if they are likely to be disturbed by those works. This is in accordance with the NOHSC Code of Practice for the Safe Removal of Asbestos [NOHSC: October 2018]

2.6.1 REMOVAL OF ACM

2.6.1.1 LICENSED CONTRACTORS

ACM falls into two broad categories (bonded and friable) and the category the ACM falls under will determine how the ACM is removed. If the ACM is classified as friable (e.g. sprayed limpet, pipe lagging, millboard insulation, vinyl sheet floor coverings with asbestos backing material, etc.) it is necessary to engage a contractor who holds a current AS-A class license for friable asbestos removal. The holder of an AS-A licence is also permitted to removed Bonded ACM

If the ACM is classified as bonded ACM (e.g. asbestos cement wall linings, Super Six roof sheeting, vinyl floor tiles, Zelemite electrical boards, etc.) the ACM may be removed by the contractor who holds a current AS-B licence for bonded asbestos removal. The holder of an AS-B licence is not permitted to remove friable ACM.

2.6.1.2 SAFEWORK - NOTIFICATION

For Bonded ACM, in quantities greater than 10m², requiring a licensed contractor (AS-B) to complete the removal works, a Safework (Regulator) Notification is required to be lodged by the Licensed Contractor.

The Notification is required to be lodged a minimum of seven (7) working days prior to starting the removal works. Safework (Regulator) will review the application and return the first two pages, stamped with an official Safework (Regulator) approval. No works are to proceed prior to the receipt of the Notification.

RCC will require a copy of the Safework (Regulator) stamped 'Notification' prior to issuing an RCC Asbestos removal permit.

2.6.1.3 SAFework - PERMIT

For all Friable removal works, regardless of quantity, a suitably licensed contractor (AS-A) must apply to Safework (Regulator) for a Permit prior to removal works progressing.

The Permit application is required to be lodged a minimum of seven (7) working days prior to starting the removal works. Safework (Regulator) will review the application and return the first two pages stamped with an official Safework (Regulator) approval and, issue a separate numbered Permit. No works are to proceed prior to the receipt of the permit.

RCC will require a copy of the Safework (Regulator) 'Permit' and the application form prior to issuing an RCC Asbestos removal permit.

2.6.1.4 AIRBORNE FIBRE MONITORING

Airborne fibre monitoring must be conducted during and after the removal of all friable ACM by an independent competent person. For Bonded ACM, air monitoring is conducted as part of the clearance certificate (where required) or as requested by RCC, client or Hygienist. Air monitoring is conducted during the removal works to check the effectiveness of control measures implemented by the contractor (e.g. isolating the removal work area with a sealed, airtight enclosure fitted with negative air generating units, etc.).

Air monitoring is also conducted after the ACM has been completely removed and the work area has passed a satisfactory visual inspection to determine whether the area is safe to reoccupy by unprotected persons.

2.6.1.5 CLEARANCE CERTIFICATES

For all Friable ACM removal works or, as requested by the client or RCC for Bonded works, before an area can be re-occupied post asbestos removal, a clearance inspection must be carried out. The clearance inspection must be undertaken by an independent competent person only and a clearance certificate must be obtained from that competent person. Clearance monitoring is a mandatory requirement for all friable asbestos removal works and is recommended for bonded ACM removal works particularly when the bonded ACM is located internally or near sensitive receptors.

The complete removal of all ACM must be verified with a written clearance certificate which must include details of a satisfactory clearance inspection conducted by the independent competent person. If clearance air monitoring has been conducted, the results of the clearance monitoring must be included as part of the clearance certificate as well.

2.6.1.6 WASTE

All asbestos waste shall be disposed of at an approved landfill disposal site by licensed contractors, and in accordance with the requirements of The Legislation. Transport and disposal of asbestos waste shall be carried out only in a manner that will prevent the liberation of asbestos fibres into the atmosphere.

To achieve "final completion" of an asbestos removal activity, RCC require verification that the asbestos waste has been transported and disposed of in accordance with State/Territory legislative requirements. A copy of the EPA Waste Tracking document is the required documentation for disposal, and a copy of the necessary License for carrying out this removal and disposal is the required documentation for transportation.

2.6.2 RECORD KEEPING

RCC shall maintain detailed records of all activities relating to asbestos works which have been undertaken on site. The records kept should include:

- Copies of all asbestos survey/audit reports, including updates and amendments. (RCC ACM Registers)
- Copies of all Safework (Regulator) notifications and permits
- Risk Assessments and SWMS documents.
- RCC Asbestos removal permits
- RCC Air Monitoring and Clearance certificate records
- Records pertaining to the informing of employees/contractors about the presence of asbestos on site, and those employees have been appropriately trained in safe work procedures and practices.
- Clearance certificates indicating areas are safe to reoccupy after asbestos abatement works; and
- Airborne fibre monitoring results
- Previous versions of the asbestos register

All documentation is to be retained in the one file structure under the heading of Asbestos Management. All asbestos related records and documents are to be retained for a period of 30 years.

2.6.3 LABELLING

Current State and Territory legislation specify the requirements for some form of labelling in buildings. [NOHSC: 2018 (2005)] states all in-situ ACM's should be labelled where practicable. The words 'should' and 'practicable' in the Code of Practice allow some flexibility in the approach to labelling. Similar flexibility is allowed under State and Territory workplace health and safety legislation.

RCC has advised that individual labelling of ACM is to be determined by a Competent Person usually nominated by the client however may not be necessary in every instance.

All friable and high risk asbestos situations, as well as any location containing ACM's where regular maintenance or repair work is likely to be carried must be labelled.

In locations where ACM has been identified within close proximity to the work area, but not required to be removed or disturbed, should be labelled or sign posted warning of 'Asbestos containing material, do not disturb' or in wording similar.

Ref: WHS Regulation, Chapter 8, Asbestos- Clause 469

An asbestos removalist must ensure that:

- a) Signs alerting persons to the presence of asbestos are placed to indicate where the asbestos removal work is being carried out, and
- b) Barricades are erected to delineate the asbestos removal area.

2.6.4 WARNING SIGNS

All site areas which are known or suspected to contain ACM's shall have a warning sign at every main entry and around the perimeter of the isolated ACM area. An asbestos register exists for the site and a point of contact must be contacted before undertaking any works.

The warning sign must be clearly visible from all directions leading onto the area.

2.6.5 SAFE WORK PRACTICES

Prior to commencing any works on RCC sites, such as demolition, refurbishment, maintenance or installation of new equipment, the asbestos register must be consulted to determine if any ACM are present which may be disturbed. This ACM must be removed before commencement of the work. If unknown materials, or undocumented materials suspected of containing asbestos are encountered during building works, stop work and follow the Incident response procedures shown in figure 7.0.

If a project is likely to impinge upon ACM, the principal contractor (RCC) must assess the requirement for a licensed asbestos removalist to perform the asbestos removal work. A Safework permit/Notification may be required as part of an RCC, Asbestos Permit to work, prior to the asbestos removal work commencing.

2.6.5.1 MAINTENANCE PROCEDURES

Maintenance tasks that may impact on ACM are to be performed under controlled conditions to prevent the distribution of airborne asbestos fibres. [NOHSC: 2018 (2005)] has procedures for certain maintenance tasks and these must be followed. These maintenance tasks include:

- The drilling of asbestos containing materials
- Sealing, painting, coating of asbestos cement products
- Cleaning leaf litter from the gutters of asbestos cement roofs
- Replacing cabling in asbestos cement conduits or boxes
- Working on electrical mounting boards (switchboards) containing asbestos

2.6.5.2 TOOLS AND EQUIPMENT

Tools and equipment to be used for asbestos removal jobs are required to minimise the generation of airborne asbestos fibres. High-speed abrasive power or pneumatic tools such as angle grinders, sander, saws and high speed drills must never be used. Hand tools are preferred over power tools.

At the end of the removal work, all tools should be:

Decontaminated (i.e. fully dismantled and cleaned under controlled conditions as described in the Code, or

Disposed of in sealed containers similar to that for disposal of the ACM waste product.

Vacuum cleaners used for asbestos cleaning must comply with:

- AS 3544-1988 (Industrial Vacuum Cleaners for Particulates Hazardous to Health) and
- AS4260-1997 High Efficiency Particulate Air Filters (HEPA) - Classification, construction and performance.

2.6.5.3 RCC ASBESTOS REMOVAL PERMIT

An RCC Asbestos Removal Permit form must be completed for any work on ACM.

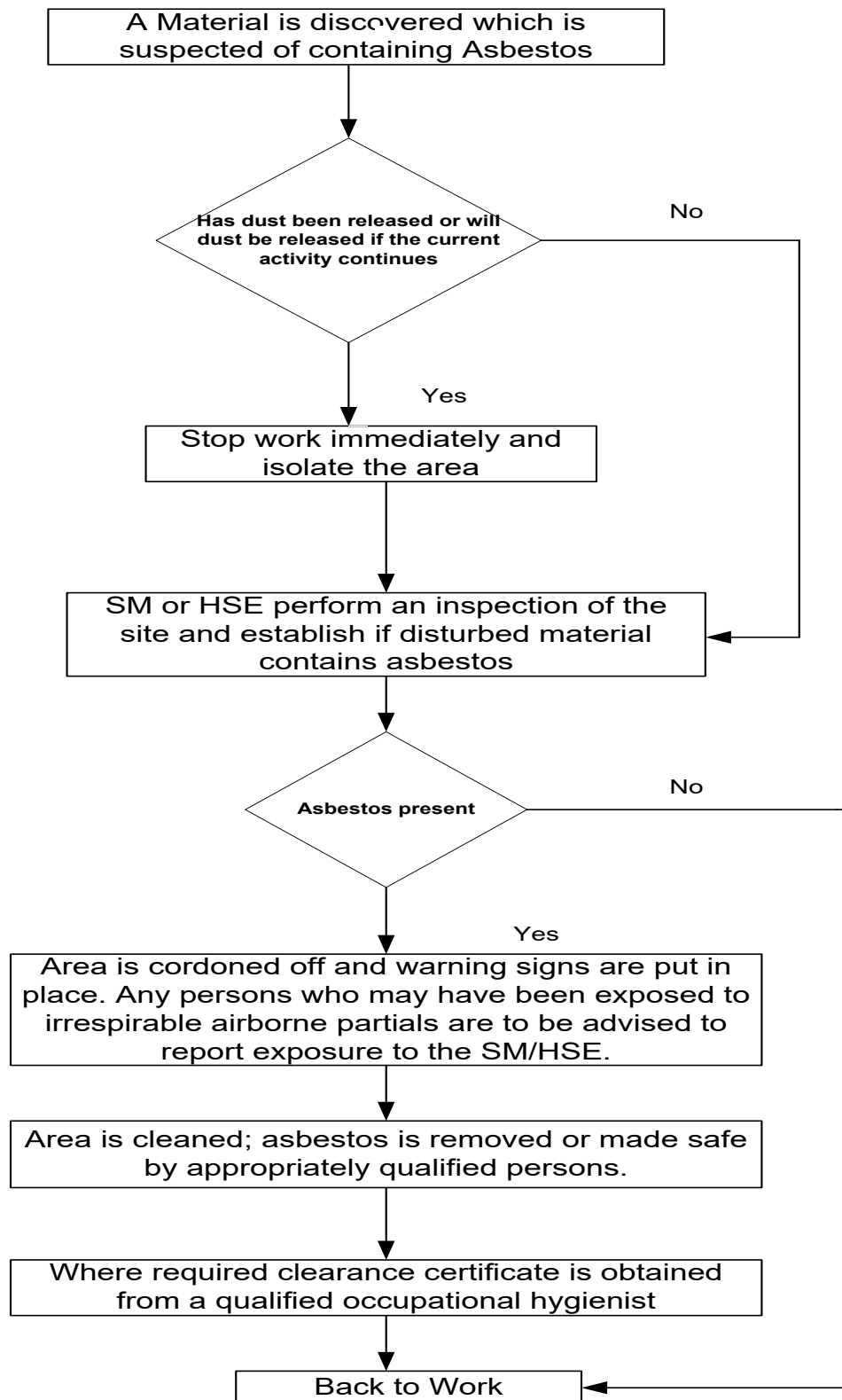
Before being issued with an Asbestos Removal Permit, individuals will be required to peruse the RCC Asbestos Management Plan and the Asbestos Register. Where practicable, contractors should be made aware of the requirements of the plan prior to tendering to ensure they allow for such requirements when quoting.

The Asbestos Removal Permit is designed to ensure appropriate work practices are employed when working with ACM. The Asbestos Removal Permit will document what ACM's are to be removed, encapsulated or otherwise protected, prior to the contracted works proceeding. The Asbestos Removal Permit will also check other requirements such as the need for barricading and airborne fibre monitoring.

The Demolisher or asbestos removal contractor will be responsible to ensure that their workers are aware of their responsibilities and abide by the requirements of the permit.

RCC's Site Manager or HSE Coordinator shall be advised immediately of any incidents of non-compliance with the RCC Asbestos Management plan or the Code.

2.7 UNEXPECTED FINDS (ASBESTOS) RESPONSE FLOW CHART



2.8 DOCUMENTATION REQUIREMENTS

2.8.1 ASBESTOS CONTAINING MATERIAL (ACM) REGISTER FORM 21.1A

The RCC ACM register will be generated where no report has been received from the client or when additional ACM items have been identified but not listed in previous reports.

The RCC ACM register and the clients ACM report will be monitored and signed off where required, when ACM works are completed.

Supporting information that should be included in the register is:

- Register of ACM items
- Register of items which were samples but found to contain no asbestos
- Certificates of analysis
- Photos
- Floor plans with asbestos containing items marked up

2.8.2 ASBESTOS REMOVAL PERMIT FORM 21.1B

The RCC Asbestos removal permit is required to be completed prior to any ACM removal/remedial works.

The requirements for supporting documentation are listed within the permit.

2.8.3 ASBESTOS CONTAINING MATERIAL (ACM) AIR MONITORING & CLEARANCE CERTIFICATE RECORD FORM 21.1C (NOTE: 1 FORM PER ACTIVITY/ITEM)

Asbestos Containing Material (ACM) Air Monitoring & Clearance Certificate Record is used to collate all associated documentation involved in the identification, removal, remediation, transport and disposal of logged ACM.

2.9 TRAINING

2.9.1 ASBESTOS AWARENESS TRAINING

Asbestos awareness training provides participants with a general overview of asbestos including history and background; asbestos types and properties; common asbestos situations; health effects; risk in perspective and management of asbestos. Conducted by RCC person, or RTO . ACT region training conducted by MBA or other ATO accredited company mandatory for Act Workers.

2.9.2 ASBESTOS REMOVAL TRAINING

This course is typically provided by an external registered training organisation (RTO) to personnel who intend to remove bonded ACM, pre-requisite for obtaining a Safework recognised licence

3 UNEXPECTED FINDS – NON-ABESTOS

3.1 PURPOSE

The objectives for the project include to provide control measures for the protection and management of known and unknown/unexpected contamination, heritage, archaeological items and features including but not limited to; soil profiles, trees, buildings, structures, artefacts, relics, human remains and places.

Richard Crookes Constructions are to:

- Ensure all risks associated with excavation and exposure of workers or the public to contamination are eliminated where possible.
- Follow the protocols and communication procedures outlined below for unexpected finds related to contamination, archaeological heritage and aboriginal heritage.
- To protect or conserve (where possible) known Indigenous and Non-indigenous heritage and archaeological items and features on and adjacent to the site.
- To protect and conserve (where possible) previously undiscovered heritage and archaeological items and features on or adjacent to the site.
- To manage heritage and archaeological items and features impacted by construction in accordance with regulatory requirements.

3.2 OVERVIEW

The objectives for the project include to provide control measures for the protection and management of known and unknown/unexpected contamination, heritage, archaeological items and features including but not limited to; soil profiles, trees, buildings, structures, artefacts, relics, human remains and places.

Richard Crookes Constructions are to:

- Ensure all risks associated with excavation and exposure of workers or the public to contamination are eliminated where possible.
- Follow the protocols and communication procedures outlined below for unexpected finds related to contamination, archaeological heritage and aboriginal heritage.
- To protect or conserve (where possible) known Indigenous and Non-indigenous heritage and archaeological items and features on and adjacent to the site.
- To protect and conserve (where possible) previously undiscovered heritage and archaeological items and features on or adjacent to the site.
- To manage heritage and archaeological items and features impacted by construction in accordance with regulatory requirements.

3.3 CONTAMINATION & CONTAMINATED MATERIAL

3.3.1 PROTOCOL AND COMMUNICATION PROCEDURE

The possibility exists for hazards that have not been identified to date to be present within fill materials or underlying existing pavements/building on the site. These hazards may present novel conditions which require to be addressed to ensure that the continuation of site works is completed in a manner which achieves the project objectives.

An example of such a condition would be the identification of previously unknown contaminant(s) within site soils and/or excavation dewater.

The applicable protocol for Contamination & Contaminated Material, as noted below, is to be read in conjunction with the Report of Detailed Site (Contamination) Investigation (Ref: 94626.00), prepared by Douglas Partners and dated 12 November 2021 and is relevant to potential soil and water management at the site.

The nature of hazards which may be present and which may be discovered at the site they may be encountered as a result of historical uses are noted as being:

PAEC#	Identified from	Description
1	Site Inspection	Refurbished Demountable Structures may contain remnant asbestos
2	1947 – Present Aerials and Site History Review	Fill placed across the site for the formation of site levels and the backfilling of the creek in the north-east corner of the site
3	1947 – Present Aerials Site History Review	Previous Agricultural Activities

Based on the current investigation, the following potential sources of contamination and associated contaminants of potential concern (COPC) have been identified:

- Potential Source S1 (S1): Hazardous Building Materials

Refurbished Demountable Structures may contain remnant asbestos.

- Potential Source S2 (S2)

Fill: Fill areas of the site were identified during the review of aerial photographs and site inspection. It is not known whether fill materials were sourced from within the site or imported from an off-site source. Filling may be associated with levelling, demolition of former buildings on the site and potential burying of waste.

There is potential for areas of the site to be impacted from fill and demolition waste related COPC including:

- Heavy metals;
- TRH;
- BTEX;
- PAHs;
- PCBs;
- OCPs and OPPs;
- Asbestos.
- S3: Previous Agricultural Activity (Potential Source S3)

Historical aerial photographs indicate that the site and surrounding area have been used for grazing or other agricultural activities up to the development of the school in 2008. Agricultural activities are commonly associated with use of pesticides.

There is potential for contamination of surface soils from agriculture related COPCs including:

- OCPs;
- Heavy metals (Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel and Zinc).

It is to be noted that the Report of Detailed Site (Contamination) Investigation (Ref: 94626.00), prepared by Douglas Partners and dated 12 November 2021 and the supplementary information noted in Appendix 6.9 – Community Communication(s) Strategy of the CEMP serve to outline the protocol & communication procedure as required by Consent Condition B15 (b) of SSD-23512960.

Supplementary to Appendix 6.9 of the CEMP, the following procedural stages and associated information is to be provided to the applicable stakeholders:

- *Applicable respondent* to also include relevant subject matter expert or experienced person(s)
- Area associated with the unexpected find to be made safe and then segregated from surrounding works
- Notification to applicable stakeholders in-line with Appendix 6.9 of the CEMP (Community Communication(s) Strategy) as necessary to the outcome of the unexpected finds procedure.

In-line with the requirements of consent condition C43 of SSD-23512960; should any (un)expected contaminated material is encountered during construction work which requires remediation and/or ongoing on-site management of soil or groundwater contamination, then the following requirements must be satisfied:

- (a) the Applicant must engage a NSW EPA-accredited Site Auditor to confirm the appropriateness of the site for the proposed use. The Applicant must obtain from a NSW EPA-accredited Site Auditor a Section A2 Site Audit Statement accompanied by an Environmental Management Plan (if required to manage ongoing contaminants) prepared by a certified consultant and submit it to the Planning Secretary and relevant Council for information no later than one month before the commencement of operation
- (b) the development must not be used for the purpose approved under the terms of this consent until a Site Audit Statement determines the land is suitable for that purpose and any conditions on the Site Audit Statement have been complied with.

3.4 ARCHEAOLOGICAL HERITAGE

3.4.1 PROTOCOL AND COMMUNICATION PROCEDURE

There is potential that unexpected physical evidence associated with the phases of occupation at the site may be present in all areas of the site. Such unexpected remains may include, but not be limited to:

- Deep cut wells, reservoirs and pits associated with occupation at the site;
- Structural remains and artefacts;
- Rubbish pits containing waste and discarded artefacts disposed of away from housing
- Other unexpected, buried remains.

Unexpected finds do not include isolated artefacts and building remains that may form part of fill deposits.

If any unexpected archaeological relics are uncovered during the work, then:

- (c) all works must cease immediately in that area and notice is to be given to Heritage NSW and the Planning Secretary;
- (d) depending on the possible significance of the relics, an archaeological assessment and management strategy may be required before further works can continue in that area as determined in consultation with Heritage NSW; and
- (e) works may only recommence with the written approval of the Planning Secretary.

Some of the attributes of any unexpected finds that may determine if further advice is sought from Heritage NSW regarding the find are:

- Larger previously unrecorded features especially structural remains;
- Evidence for earlier occupation of the site (i.e. pre 1818);
- Rare or unusual find;

If State or locally significant relics are found during works, the Heritage Council of NSW is to be notified in accordance with s.146 of the Heritage Act 1977. This notification takes place in the form of an email to the relevant archaeologist at Heritage NSW. It is noted that Section 4.41 of the Environmental Planning and Assessment Act 1979 does not exempt notification of the discovery of relics under s146, of the Heritage Act 1977, nor the notification of the discovery of Aboriginal objects under s89 of the NPW Act for State Significant Development or State Significant Infrastructure.

Depending on the assessed significance of the find it may be necessary to undertake additional assessment and management recommendations related to the new information. Work may only recommence with the written approval of Heritage NSW.

3.5 ABORIGINAL HERITAGE

3.5.1 PROTOCOL AND COMMUNICATION PROCEDURE

Construction must be undertaken in accordance with the recommendations of the Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared by Tocomwall dated 22 October 2021. The ACHAR notes no Aboriginal archaeological sites, objects, PAD or Places were located within the development and construction footprint.

The proposed works are considered unlikely to harm Aboriginal objects, and no sites, PADs or Aboriginal Places were identified within the subject lands during the survey, consultation and test excavation program. The land within the development footprint is considered to have low to nil potential to retain extant archaeological sites, objects, or PAD.

These recommendations are provided on the basis of the recognition of the legal requirements and automatic statutory protection provided to Aboriginal 'objects' and 'places' under the terms of the National Parks and Wildlife Act of 1974 (as amended), and as outlined in the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW 2010).

Upon discovery of an unexpected find that is suspected to be an Aboriginal Unexpected Find (excluding skeletal/human remains), the following procedure should be followed:

1. Cease works & make-safe in the immediate vicinity of the find;
2. Notify Heritage NSW immediately;
3. In the event that the unexpected find is identified as a new Aboriginal object:
 - a. all works must halt in the immediate area to prevent any further impacts to the object(s);
 - b. a suitably qualified archaeologist and the registered Aboriginal representatives must be contacted to determine the significance of the objects;
 - c. the site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) which is managed by Heritage NSW under Department of Premier and Cabinet and the management outcome for the site included in the information provided to AHIMS;
 - d. the Applicant must consult with the Aboriginal community representatives, the archaeologists and Heritage NSW to develop and implement management strategies for all objects/sites; and
 - e. works may only recommence with the written approval of the Planning Secretary.

3.6 UNEXPECTED SKELETAL/HUMAN REMAINS

While not anticipated to be encountered within the GHS construction area; if there is an unexpected discovery of any potential skeletal remains during earthworks or development within the impact footprints, works should cease immediately and the Police and NSW Heritage should be contacted.

If any suspected human remains are discovered and/or harmed the proponent must:

- a) Not further harm these remains;
- b) Immediately cease all work at the location;
- c) Secure the area to avoid further harm to the remains;
- d) Notify the local Police & Heritage NSW;
- e) Not recommence any work at the location unless authorised in writing in consultation with both Police & Heritage NSW (depending on direction provided by each)

3.7 ORGANISATIONAL RESPONSIBILITIES

Person/Party	Responsibility
Construction Manager (CM), Project Manager (PM)	<ul style="list-style-type: none"> ▪ Ensure all staff and contractors are aware of and comply with the plan. ▪ Project management ▪ Identification and bringing to the attention of appropriate staff, any suspect material ▪ Ensure all contractors working on asbestos are aware of and meet the requirement of the plan. ▪ Notify Adjacent neighbours, property owners work type and time frame
Site Manager (SM) Health Safety and Environmental Coordinator (HSE)	<ul style="list-style-type: none"> ▪ Obtain from Subcontractor, copy of Safework Notification (Requirement of RCC Asbestos removal permit) ▪ Ensure project personnel (including contractors) are inducted ▪ Surveying, identification and arranging for sampling of suspected asbestos containing materials by competent persons. ▪ Training and awareness RCC relevant staff ▪ Manage the asbestos works program and removal program ▪ Respond to incidents ▪ Document preparation, recording and filing ▪ Manage asbestos inspection contractor
Contractors (C) and Trades Staff (TS)	<ul style="list-style-type: none"> ▪ Not to impact on an ACM without complying with the plan ▪ To bring to the attention of the SM/HSE any suspect material ▪ Refer to the plan for guidance to identify, manage, and remove asbestos ▪ Apply for Asbestos Permit to Work when performing asbestos removal work that requires notification. ▪ Undergo RCC Contractor Induction ▪ Develop a site specific asbestos removal control plan, SWMS and Risk Assessment prior to performing the asbestos removal work

3.8 INCIDENT RESPONSE PROTOCOL & FLOW CHART

3.8.1 UNEXPECTED FIND (ASBESTOS & NON-ASBESTOS) IS DISCOVERED

Subcontractor or personnel is to advise Richard Crookes Constructions, in the event they believe they may have located an Unexpected Find.

3.8.2 STOP WORKS AND ISOLATE

1. Richard Crookes Constructions will immediately stop works to this area and isolate this zone.
2. Richard Crookes Constructions will utilise the Unexpected Finds Protol (Figure 01) to ascertain the appropriate measures to be implemented backed on the nature of the Unexpected Find(s).
 - a. Should the find appear to be suspected of being Asbestos, then the Asbestos section of the Unexpected Finds Protocol is to be followed, alternatively the Non-Abestos section of the Unexpected Finds Protocol is to be followed.
 - i. Unexpected Finds (Non-Asbestos): Contamination & Contaminated Material
 - ii. Unexpected Finds (Non-Asbestos): Archeological Heritage
 - iii. Unexpected Finds (Non-Asbestos): Aboriginal Heritage
 - iv. Unexpected Finds (Non-Asbestos): Skeletal/Human Remains

3.8.3 RECOMMENCE WORKS

Richard Crookes Constructions are only to recommence works when written approval is received from the applicable hold point or competent person(s)/representative applicable to the Unexpected Find (e.g. Heritage NSW to provide written approval to recommence works subsequent to an

RICHARD CROOKES
CONSTRUCTIONS

APPENDIX 2 – 21.11A ASBESTOS REMOVAL PERMIT

Project Name:		Company Performing Work:	
Contractors Contact:		Position:	
Location of works:			
Description of Work:			
RCC Asbestos Register – Item Identification number:			
Asbestos Type			
Bonded Less than 10m ² <input type="checkbox"/>		No License or Permit / Application required	
Bonded Greater than 10m ² <input type="checkbox"/>		Copy of WorkCover Stamped, Notification to be obtained from contractor prior to start.	
AS-B Lic. No: _____			
Friable <input type="checkbox"/>		Copy of WorkCover stamped, Permit application to be obtained from contractor prior to start.	
AS-A Lic. No: _____		WorkCover Permit No: _____	
Permit begins		Permit expires	
Date: / /	Time: am/pm	Date: / /	Time: am/pm
Date: / /	Time: am/pm	Date: / /	Time: am/pm
Date: / /	Time: am/pm	Date: / /	Time: am/pm
Date: / /	Time: am/pm	Date: / /	Time: am/pm
RCC Emergency Contact information			
Name of RCC Contact:		Tel:	()
Authorisation by company representative			
The above work is authorised to proceed subject to the following action being taken prior to work starting and procedures being maintained for the duration of the work.			
RCC Representative Name:		Position:	Signature:
	Yes	N/A	
Work area has been inspected prior to works proceeding			Contractor has read the requirements of the RCC, ACM Management plan
Risk Assessment completed			Disposal method established
Will the area be occupied during the works			Air conditioning / Mechanical ventilation isolated:
Is it necessary to vacate the building during the works			Electrical isolated (Written confirmation from Electrician required)
SWMS reviewed by RCC			Signage / Barricades in place
Air monitoring required			Clearance certificate required
Weekly Review of Permit			
	Week 1	Week 2	Week 3
Signature and position of person issuing the permit:			
Signature of the person conducting the Work:			

APPENDIX 3 – 21.11B ASBESTOS CONTAINING MATERIAL (ACM) AIR MONITORING AND CLEARANCE CERTIFICATE RECORD

In all Friable removal works and in other cases where requested by RCC or the client, a clearance certificate may be required post completion of ACM removal works. Clearance certificates may require air monitoring to be conducted during the removal process. All monitoring records are to be maintained and kept for a period of 30 years post completion. Separate form required for each location.

Project Name:	Glenwood High School				Project Number :	1278	
Clearance Certificate location/item details							
RCC ACM Register No: (Refer to ACM register)	Item description, type & Location (Wall sheeting, Bonded)				Removed		Date removed
					Yes	No	
Air Monitoring Results							
Monitoring ID;	Unit	Sample location	Start time (24hour)	Finish time (24 Hour)	Average flow rate (mL)	Fibres/Fields	Result Fibres/mL
Completion sign off by competent person							
Copy of final clearance certificate attached <input type="checkbox"/>				Copy of waste transport receipt attached <input type="checkbox"/>			
Copy of waste disposal dockets attached <input type="checkbox"/>				Copy of ACM work permit attached <input type="checkbox"/>			
Name:		Position:		Signature:		Date:	

APPENDIX 4 – 40.3 SAFE WORK METHOD STATEMENT: REMOVAL OF BONDED ASBESTOS SCATTERED AT RANDOM

[PCBU Contractor Name, contact details]		Principal Contractor (PC) [Name, contact details]	
Works Manager: Contact Phone:		Date SWMS provided to PC:	Revision No:
Work activity/trade:		Project Name::	
HIGH RISK CONSTRUCTION WORK: HRCW	Risk of a person falling more than 2 metres (<i>Note: in some jurisdictions this is 3 metres</i>)	Work on a telecommunication tower	Demolition of load-bearing structure
	Likely to involve disturbing asbestos	Temporary load-bearing support for structural alterations or repairs	Work in or near a confined space
	Work in or near a shaft or trench deeper than 1.5 m or a tunnel	Use of explosives	Work on or near pressurised gas mains or piping
	<input type="checkbox"/> Work on or near chemical, fuel or refrigerant lines	Work on or near energised electrical installations or services	<input type="checkbox"/> Work in an area that may have a contaminated or flammable atmosphere
	<input type="checkbox"/> Tilt-up or precast concrete elements	<input type="checkbox"/> Work on, in or adjacent to a road, railway, shipping lane or other traffic corridor in use by traffic other than	<input type="checkbox"/> Work in an area with movement of powered mobile plant
	<input type="checkbox"/> Work in areas with artificial extremes of temperature	<input type="checkbox"/> Work in or near water or other liquid that involves a risk of drowning	<input type="checkbox"/> Diving work
Person responsible for ensuring compliance with SWMS:		Date SWMS received:	
What measures are in place to ensure compliance with the SWMS?			
Person responsible for reviewing SWMS control measures:		Date SWMS received by reviewer:	
How will the SWMS control measures be reviewed?			
Review date:		Reviewer's signature:	

Procedure (in steps):	Possible Hazards	Control Measures
Break the job down into steps. Each of the steps should accomplish some major tasks and be logical	Situation with potential to harm – injury, illness, damage, environmental impact Eg.loss of control of plant	What actions are necessary to eliminate or minimise the hazards – elimination, substitution, isolation, engineers solutions and lastly PPE
Isolation/protection of Asbestos containing material (ACM)	Disturbance of ACM Incorrect removal	Isolate identified material by removing workers form the area and barricading off minimum radius of 5 metres – Danger tape. Warning signage to be placed at the barrier to area warning of ACM Restrict access to one entry point ONLY Asbestos register to be updated in accordance with ACM Register. Initiate RCC ACM works permit process
Establish works area/removal area	Unauthorised entry to areas	Identify the boundary for the works area i.e the location where ACM is to be removed from and identify with danger tape and signage advising ACM removal in progress. Identify area for removal site i.e. the isolated region around the works,identify with danger tape & signage warning of restricted access ACM removal works in progress.
Protection of surrounding areas/adjoining structures	Adjoining areas contaminated by removal process	Prior to any removal: Protection in the form of 200 micron plastic to be secured to protect adjoining finishes (Floors/walls) Isolation/lock out of mechanical ventilation required prior to starting
Sealing of ACM prior to removal	Disturbance of ACM Water run off Electrical outlets i.e. switches, lights, outlets, alarms etc.	Ensure all electrical items are isolated from supply. Ensure all Any drains within the area to be protected. PPE as identified above. Low pressure coarse spray to be applied to all faces/edges. A mixture of water & PVA solution or detergent or paint can be used as a wetting agent. Ensure surface is saturated but minimise run off Ensure ACM is saturated through it's full depth prior to removal/disturbing. Spray all accessible voids where dust may exist
Removal process	Damage to sheets General disturbance Manual handling	Determine methodology for removal Remove any loose sections prior to removing fixed sheets. Ensure all disturbed areas remain saturated, re-apply dampening method as required. Avoid breaking sheets where possible. Should sheets continually break, reassess method of removal. Support sheets prior to removing fixings

Procedure (in steps):	Possible Hazards	Control Measures
		Where possible, remove nails/fixings or punch nail heads through sheeting. 2 person lifts for heavy or awkward materials. PPE as specified above.
Packaging waste	Packages become loose and tear Materials spill onto ground Manual handling	For small pieces , ACM to be packaged into man-handleable packages, enclosed in heavy duty 200 micron plastic. (Bag or wrap) Where possibility of tearing is identified 2 layers may be required. Bags to be labelled with appropriate warnings similar to ' Caution Asbestos' or Asbestos within, do not open bag. Where bags are used, opening to be twisted and folded over and fixed with tape or other means. For larger sections , skips may be used but must be in good condition. Skip is to be lined in 2 layers of 200 micron plastic. ACM must be kept wet. Once skip is full, it's contents must be sealed with the plastic sheeting.
Clean up	Adjoining areas contaminated by removal process Manual handling	Ensure all disturbed areas remain saturated, re-apply dampening method as required. Start from the top and work down cleaning ledges, sills & high flat areas that ACM can settle. Remove any loose items. Start cleaning and removing plastic from furthest workpoint from exit working towards the exit point. The use of an Asbestos vacuum is permitted for dry decontamination cleaning. All waste to be disposed of in Same way to ACM. (Lined bin, plastic bag 200 micron) All PPE to remain on till area is decontaminated. Scrape/clean off excess materials from boots, tools etc with damp rag, into Asbestos waste bag. All disposable PPE to be placed in Asbestos waste bag and not re-used.
Disposal of waste	Incorrect disposal of waste	Materials to be disposed of at registered waste management fascility, capable of receiving Hazardous waste. Receipts of waste disposal to be collected and recorded in Asbestos register.
Other items as identified		

Company

I/We the undersigned, employees of _____, declare that I/we have attended "Work Activity Training" in the tasks to be performed on this project and have had an opportunity to participate in the development / review of the SWMS. We acknowledge that all work will be performed in the manner described within the Safe Work Method Statement.

[illegible]

Project: (List Project Name)	Signed by Senior Management Company Rep.
Contractor: Richard Crookes Constructions. 214 Willoughby Rd, Crows Nest 2065	Signature: (Who has reviewed the SWMS)
Description of Work: SWMS - Removal of BONDED Asbestos containing material ONLY (ACM) quantity less than 10 square metres Revision date: (Non licensed - Minor works)	Title: (Your title)
	Date: (Date reviewed prior to release)

Potential Environmental Impacts: Air (odour, dust, fumes) <input checked="" type="checkbox"/> Spills to ground <input checked="" type="checkbox"/> Noise <input type="checkbox"/> Soil Erosion <input type="checkbox"/> Vibration <input type="checkbox"/> Contamination/Haz materials <input checked="" type="checkbox"/> Spills to drains/waterways <input checked="" type="checkbox"/> Traffic / community <input type="checkbox"/> Flora <input type="checkbox"/> Fauna <input type="checkbox"/> Waste: <input checked="" type="checkbox"/> Other:	Safety Equipment Fire extinguishers <input type="checkbox"/> Barricades <input checked="" type="checkbox"/> Ventilation <input type="checkbox"/> Lighting <input type="checkbox"/> Ladders/mobile scaffold <input type="checkbox"/> Traffic control <input type="checkbox"/> Welding screens <input type="checkbox"/> Dust extraction <input type="checkbox"/> Emergency response <input type="checkbox"/>	Permits Hot Work <input type="checkbox"/> Excavation <input type="checkbox"/> Confined Space <input type="checkbox"/> Tag out / Lock out <input type="checkbox"/> Formwork stripping <input type="checkbox"/> Fall Arrest Systems <input type="checkbox"/> Scaffold <input type="checkbox"/> Other: RCC Asbestos Permit to Work	Personal Protective Equipment (PPE) Hard Hat <input checked="" type="checkbox"/> High Vis. Clothing <input type="checkbox"/> Steep capped boots <input checked="" type="checkbox"/> Face Shield/Welding Shield <input type="checkbox"/> Safety Glasses <input checked="" type="checkbox"/> Gloves <input checked="" type="checkbox"/> Hearing Protection <input type="checkbox"/> Fall Protection/Harness <input type="checkbox"/> Other Task Specific: Face mask - Type 2 Cartridge, Disposable overalls (Non - Velcro type).
---	--	--	--

Procedure (in steps):	Possible Hazards	Risks	Inherent Risk Score (risk with no controls)	Control Measures	Residual Risk Score (risk after controls in place)	Resp. Person
Break the job down into steps. Each of the steps should accomplish some major tasks and be logical	Situation with potential to harm – injury, illness, damage, environmental impact Eg.loss of control of plant	List Eg. Damage to plant, buildings etc.injury or death, spills	Refer to RCC Risk Assessment Calculator F 21.5 Score 1, 2, 3	What actions are necessary to eliminate or minimise the hazards – elimination, substitution, isolation, engineers solutions and lastly PPE	Refer to RCC Risk Assessment Calculator F 21.5 Score 1, 2, 3	
Isolation / protection of Asbestos	Disturbance of ACM	Dust inhalation	1	Isolate identified material by removing	3	HSE

Risk Scores: 1= Immediately Stop work until controls in place, 2 =High priority controls in place as soon as practicable, 3= Low risk, planned re assessment of risk

Procedure (in steps):	Possible Hazards	Risks	Inherent Risk Score (risk with no controls)	Control Measures	Residual Risk Score (risk after controls in place)	Resp. Person
containing material (ACM)	Incorrect removal	Long term health effects Cross contamination Whole of site closure		workers form the area and barricading off minimum radius of 5 metres – Danger tape. Warning signage to be placed at the barrier to area warning of ACM Restrict access to one entry point ONLY Asbestos register to be updated in accordance with ACM Register. Initiate RCC ACM works permit process		SM
Establish works area / removal area	Unauthorised entry to areas	Workers exposed to ACM	2	Identify the boundary for the works area i.e the location where ACM is to be removed from and identify with danger tape and signage advising ACM removal in progress. Identify area for removal site i.e. the isolated region around the works, identify with danger tape & signage warning of restricted access ACM removal works in progress.	3	SM, HSE Competent Person
Protection of surrounding areas / adjoining structures	Adjoining areas contaminated by removal process	Workers exposed to ACM	1	Prior to any removal: Protection in the form of 200 micron plastic to be secured to protect adjoining finishes (Floors / walls) Isolation / lock out of mechanical ventilation required prior to starting	3	Competent Person
Sealing of ACM prior to removal	Disturbance of ACM	Cross contamination	2	Ensure all electrical items are isolated	3	Competent

Risk Scores: 1= Immediately Stop work until controls in place, 2 =High priority controls in place as soon as practicable, 3= Low risk, planned re assessment of risk

Procedure (in steps):	Possible Hazards	Risks	Inherent Risk Score (risk with no controls)	Control Measures	Residual Risk Score (risk after controls in place)	Resp. Person
	Water run off Electrical outlets i.e. switches, lights, outlets, alarms etc.	to other areas Electrocution Explosion Slips / falls		from supply. Ensure any drains within the area are protected. PPE as identified above. Low pressure coarse spray to be applied to all faces / edges. A mixture of water & PVA solution or detergent or paint can be used as a wetting agent. Ensure all exposed surfaces (where exposed) are saturated but minimise run off, prior to removal / disturbing. Ensure ACM is saturated (where exposed), prior to removal / disturbing. Spray all accessible voids where dust may exist		Person
Removal process	Damage to sheets General disturbance Manual handling	Workers exposed to ACM Dust generation Cross contamination to other areas Strains / cuts	1	Determine methodology for removal Remove any loose sections prior to removing fixed sheets. Ensure all disturbed areas remain saturated, re-apply dampening method as required. Avoid breaking sheets where possible. Should sheets continually break, reassess method of removal. Support sheets prior to removing fixings Where possible, remove nails / fixings or punch nail heads through sheeting. 2 person lifts for heavy or awkward	3	Competent Person

Risk Scores: 1= Immediately Stop work until controls in place, 2 =High priority controls in place as soon as practicable, 3= Low risk, planned re assessment of risk

Procedure (in steps):	Possible Hazards	Risks	Inherent Risk Score (risk with no controls)	Control Measures	Residual Risk Score (risk after controls in place)	Resp. Person
				materials. PPE as specified above.		
Packaging waste	Packages become loose and tear Materials spill onto ground Manual handling	Workers exposed to ACM Dust generation Whole of site closure Environmental damage Strains / cuts	1	For small pieces , ACM to be packaged into man handle-able packages, enclosed in heavy duty 200 micron plastic. All asbestos waste must be double bagged or wrapped in 2 layers of 0.2mm plastic Bags to be labelled with appropriate warnings similar to 'Caution Asbestos' or Asbestos within, do not open bag. Where bags are used, opening to be twisted and folded over and fixed with tape or other means.	3	Competent Person
Clean up	Adjoining areas contaminated by removal process Manual handling	Workers exposed to ACM Dust generation Environmental damage Strains	1	Ensure all disturbed areas remain saturated, re-apply dampening method as required. Start from the top and work down cleaning ledges, sills & high flat areas that ACM can settle. Remove any loose items. Start cleaning and removing plastic from furthest work point from exit working towards the exit point. The use of an Asbestos vacuum is permitted for dry decontamination cleaning. All waste to be disposed of in Same	3	SM HSE Competant Person

Risk Scores: 1= Immediately Stop work until controls in place, 2 =High priority controls in place as soon as practicable, 3= Low risk, planned re assessment of risk

Procedure (in steps):	Possible Hazards	Risks	Inherent Risk Score (risk with no controls)	Control Measures	Residual Risk Score (risk after controls in place)	Resp. Person
				<p>way to ACM. (Lined bin, plastic bag 200 micron)</p> <p>All PPE to remain on till area is decontaminated.</p> <p>Scrape / clean off excess materials from boots, tools etc with damp rag, into Asbestos waste bag.</p> <p>All disposable PPE to be placed in Asbestos waste bag and not re-used.</p>		
Disposal of waste	Incorrect disposal of waste	<p>Environmental contamination</p> <p>Environmental fines imposed</p> <p>People exposed</p> <p>Commercial disgrace</p>	1	<p>Materials to be disposed of at registered waste management facility, capable of receiving Hazardous waste.</p> <p>Receipts of waste disposal to be collected and recorded in Asbestos register.</p>	3	SM
Other items as identified						

Details of Site Supervisory staff		
Name:	Qualification:	Certificates of Competence/Safework Approvals required:

Training Required to Complete Work
General WHS Induction Training
Work activity training - (Asbestos awareness training)
SWMS Training
Manual Handling training
Personal protective equipment
Other: RCC Asbestos Management Plan

Plant & Equipment: (Log books to be supplied)	

Codes of Practice, Legislation, etc. applicable :
Act: Work Health & Safety Act 2011 Protection of the Environment Operations Act 1997
Regulation: Work Health & Safety Regulation 2017
Codes of Practice: COP For the safe removal of Asbestos [NOHSC:2018 (2005)] COP- How do manage and control asbestos in the workplace-Oct 2018 COP- How to safely remove asbestos- Oct 2018
Hygienists report, if submitted.

Company

I/we the undersigned, employees of _____, declare that I/we have attended "Work Activity Training" in the tasks to be performed on this project and have had an opportunity to participate in the development / review of the SWMS. We acknowledge that all work will be performed in the manner described within the Safe Work Method Statement.

[illegible]



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Glenwood High School

Construction Noise and Vibration Management Sub Plan

Richard Crookes Constructions

Report number: 220239-GHS-CNVMSP-220513-R2
Date: 15 December 2022
Version: Issue 4

Project Number: 220239

DOCUMENT CONTROL

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3	Issue 4	220239-GHS-CNVMSP-220513-R3	15 December 2022	Ben White	Matt Furlong	Ben White

PREPARED BY:

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This report has been prepared by Pulse White Noise Acoustics Pty Ltd with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with the Richard Crookes Constructions. Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Richard Crookes Constructions. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from Pulse White Noise Acoustics.

This report remains the property of Pulse White Noise Acoustics Pty Ltd until paid for in full by the client, Richard Crookes Constructions.

Pulse White Noise Acoustics disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

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1 INTRODUCTION

Pulse White Noise Acoustics (PWNA) has been engaged to prepare a Construction Noise and Vibration Management Sub Plan (CNVMSP) for the construction activities to be undertaken as part of the Glenwood High School project including Item 10 of the REF and Item B17 of the project approvals including the SSD-23512960.

This assessment has been undertaken based on the previously completed by Aecom including the *Glenwood High School, Noise and Vibration Impact Assessment* with reference DOC No. 60659173-RPNV-01_C and dated 12 November, 2021 which has been included in the project submission and details background noise levels at the site.

A glossary of acoustic terminology used throughout this report is included in Appendix A.

The author of this report is a director of Pulse White Noise Acoustics who is a member of the Australian Acoustic Society, details including Ben's CV and membership of the AAS are included in Appendix B.

1.1 Site Layout and Development Overview

Glenwood High School is located to the north of Forman Avenue and the west of Glenwood Park Drive. See Figure 1 below.

The proposed works on the site include upgrades and additions to the exiting school, including the following:

- Construction of a new three-storey building at the north-eastern portion of the site facing Glenwood Park Drive which will accommodate new learning spaces.
- Construction of one-storey performance pavilion.
- Refurbishment of existing Building Block A (ground floor only) to provide one new support unit within the space of an existing general learning space.
- Refurbishment of Building Block D (ground floor only) to provide an additional office space and storeroom.
- Refurbishment of Building Block E to re-purpose it on the ground floor for computer learning spaces, staff and administration spaces as well as upgrades to the library on the first floor.
- Refurbishment of Building Block J to re-purpose it from visual arts and performing arts to learning spaces and workshops for food tech and woods/metal unit.
- Demolition of existing botany room and construction of a new single storey pavilion comprising interview rooms and end-of trip facilities.
- The proposed development will also involve ancillary works at the site associated with the proposed upgrades.

The works to be undertaken as part of Glenwood High School includes the scope of works including the SSD-23512960 submission.

A summary of the proposed program for works to be completed on the site are included below.

1. Early Works – (Site Establishment & Sewer Diversion)
 - Site Establishment - Approximately 3 weeks
 - Inground Services – Approximal 6 Weeks
2. Stage 1 (New Building & Performing Arts)
 - Bulk Earthworks & Piling - Approximately 6 weeks
 - Substructure - Approximately 9 weeks
 - Structure - Approximately 4 months
 - Envelope - Approximately 4 months
 - Internal Finishes & Services - Approximately 7 months
 - External Works/Landscaping - Approximately 2 months
3. Stage 2 (Buildings J, A, D & E)
 - Site Establishment - Approximately 2 weeks
 - Fitout Works - Approximately 3 months
 - Services - Approximately 3 months
 - Structure - Approximately 2 months
 - Envelope - Approximately 2 months

Residential receivers which are located within proximity to the site include a combination of single and two storey dwellings with windows overlooking the school property.

The nearest sensitive receivers to the site have been identified below.

- | | |
|--------------------|---|
| Receiver 1: | Residence to the north of the site at 278-270 Glenwood Park Drive and 17-11 Wheedon Street. |
| Receiver 2: | Residence to the north east of the site at 1-7 Shaun Street. |
| Receiver 3: | Residence to the east of the site located at 9-15 Kidman Street. |
| Receiver 4: | Residence to the east of the site located at 17-27 Kidman Street. |
| Receiver 5: | Residence to the south of the site located at 66-100 Forman Avenue. |

Details of the site location and surrounding receivers are detailed in following figure.

Figure 1 Site Map, Measurement Locations and Surrounding Receivers

1.2 SSD Compliance

This report has been undertaken in accordance with the requirements of Item B17 of the project's conditions of consent. Details of conditions of consent and sections of the report which include the required items required by the consent are included in the table below.

Table 1 SSD Compliance Table

SSD Condition number	Requirement	Report Reference for Satisfaction
B17	<i>B17. The Construction Noise and Vibration Management Sub-Plan must address, but not be limited to, the following:</i>	-
(a)	<i>be prepared by a suitably qualified and experienced noise expert;</i>	Ben white is a director of Pulse White Noise Acoustics, Ben's CV and membership of the Australian Acoustic Society is included in Appendix B.
(b)	<i>describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009);</i>	Sections 4.1
(c)	<i>describe the measures to be implemented to manage high noise generating works such as piling, in close proximity to sensitive receivers;</i>	Section 6.1 and 6.2
(d)	<i>include strategies that have been developed with the community for managing high noise generating works;</i>	Section 6.5.4 and Section 6.5.5.
(e)	<i>describe the community consultation undertaken to develop the strategies in condition B17(d);</i>	Section 6.5.2 and included in the project <i>Community Communication Strategy</i> .
(f)	<i>include a complaints management system that would be implemented for the duration of the construction; and</i>	Section 6.6
(g)	<i>include a program to monitor and report on the impacts and environmental performance of the development and the effectiveness of the implemented management measures in accordance with the requirements of condition B14</i>	Section 6.2.2 and Section 6.3.2

1.3 REF Requirements

This report all addresses the REF requirements, including item 10, which includes the following:

10. CONSTRUCTION NOISE AND VIBRATION MANAGEMENT PLAN

10.1. A Construction Noise and Vibration Management Plan is to be prepared by an appropriately qualified engineer prior to the commencement of works and implemented during the undertaking of works. The Construction Noise and Vibration Management Plan is to, but not be limited to:

- a) Identify feasible acoustic controls or management techniques (use of screens, scheduling of noisy works, notification of adjoining land users, respite periods) when excessive levels may occur.

10.2. During preparation of the Construction Noise and Vibration Management Plan, consult with the school and other sensitive receivers to determine what areas (if any) of these are particularly noise sensitive, and at what time.

2 EXISTING ACOUSTIC ENVIRONMENT

Environmental noise constantly varies in level with time. Therefore, it is necessary to measure noise in terms of quantifiable time periods with statistical descriptors. Typically environmental noise is measured over 15 minute periods and relevant statistical descriptors of the fluctuating noise are determined to quantify the measured level.

Noise (or sound) consists of minute fluctuations in atmospheric pressure capable of detection by human hearing. Noise levels are expressed in terms of decibels, abbreviated as dB or dBA, the "A" indicating that the noise levels have been frequency weighted to approximate the characteristics of normal human hearing. Because noise is measured using a logarithmic scale, 'normal' linear arithmetic does not apply, e.g. adding two sound sources of equal values result in an increase of 3 dB (i.e. 60 dBA plus 60 dBA results in 63 dBA). A change of 1 dB or 2 dB in the sound level is difficult for most people to detect, whilst a 3 dB – 5 dB change corresponds to a small but noticeable change in loudness. A 10 dB change roughly corresponds to a doubling or halving in loudness.

Specific acoustic terminology is used in this assessment report. An explanation of common acoustic terms is included in Appendix A.

This assessment has been undertaken based on the previously completed previously completed by Aecom *Glenwood High School, Noise and Vibration Impact Assessment* with reference DOC No. 60659173-RPNV-01_C and dated 12 November, 2021 which has been included in the projects SSD approvals. The background noise levels detailed in this report have been used as the basis of this report.

As part of the Aecom *Glenwood High School, Noise and Vibration Impact Assessment* background noise levels within the vicinity of the site have been assessed and are detailed in Section 2.1.4, table 5 of the report. The results detailed in the *Noise and Vibration Impact Assessment* have been used as the basis of this report and are summaries below.

The Rating Background Noise Level (RBL) is the background noise level used for assessment purposes and includes the 90th percentile of the daily background noise levels during each assessment period, being day, evening and night. The RBL LA90 (15minute) and LAeq noise levels which are presented within the Aecom *Glenwood High School, Noise and Vibration Impact Assessment* are detailed in the table below.

Table 2 Presented Background Noise Levels - Aecom *Glenwood High School, Noise and Vibration Impact Assessment*

Location	Daytime 7:00 am to 6:00 pm	Evening 6:00 pm to 10:00 pm	Night-time 10:00 pm to 7:00 am
	LA90 ¹ (dBA)	LA90 ¹ (dBA)	LA90 ¹ (dBA)
Residential Receivers to the site	38	30	30
<i>Note 1: The LA90 noise level is representative of the "average minimum background sound level" (in the absence of the source under consideration), or simply the background level.</i>			

2.1.1 Noise Survey Measurements

In addition to the previously undertaken Aecom *Glenwood High School, Noise and Vibration Impact Assessment* an acoustic noise survey of the site has been conducted as part of this assessment. The site survey has included attended noise survey which has been undertaken to supplement the SSD *Noise and Vibration Assessment*. The site noise survey was undertaken during a typical daytime period when construction on the site will be undertaken. The attended noise levels measurements were undertaken using a Bruel and Kjaer 2236C type meter. The meter was calibrated before and after testing and no significant drift was recorded. All noise level measurements were undertaken in accordance with the measurement requirements of the Australian Standard AS1055:2018 *'Acoustics - Description and measurement of environmental noise'*.

The attended and unattended noise locations were selected to obtain suitable noise levels for the assessment of background noise levels ($L_{90(t)}$) as well as the impact from traffic movements ($Leq(t)$).

The existing noise survey was undertaken at the site on the 12th May 2022 during a typical daytime periods when construction would be undertaken. The results of the attended noise level measurements are detailed in the table below.

Table 3 Measured ambient noise levels in accordance with the NSW NPI

Measurement Location	Time of measurement	Measured LAeq, 15min dB(A)	Measured LA90, 15min dB(A)	Comments
Glenwood Park Drive	4pm to 4.15pm	65	44	Noise levels resulting from natural noise sources and traffic noise from roadways within vicinity of the site
Forman Avenue	4.20pm to 4.35pm	65	42	
Shaun Street	4.40pm to 4.55pm	63	42	

3 PROJECT SSD REQUIREMENTS

This CNVSP has been prepared in accordance with the SSDA 23512960 consent condition B17 as well as the projects REF, including the requirements detailed in Sections 1.2 and 1.3 above.

4 NOISE AND VIBRATION CRITERIA

Relevant noise and vibration criteria for construction activities are detailed below.

4.1 Construction Noise Objectives

Relevant construction noise objectives applicable to this project are outlined below.

4.1.1 NSW EPA (Former DECC) Interim Construction Noise Guideline (ICNG) 2009

Noise objective for construction and demolition activities are discussed in the *Interim Construction Noise Guideline* (ICNG). The ICNG also recommends procedures to address potential impacts of construction noise on residences and other sensitive land uses. The main objectives of the ICNG are summarised as follows:

- Promote a clear understanding of ways to identify and minimise noise from construction works;
- Focus on applying all “feasible” and “reasonable” work practices to minimise construction noise impacts;
- Encourage construction to be undertaken only during the recommended standard hours unless approval is given for works that cannot be undertaken during these hours;
- Streamline the assessment and approval stages and reduce time spent dealing with complaints at the project implementation stage; and
- Provide flexibility in selecting site-specific feasible and reasonable work practices in order to minimise noise impacts.

The ICNG contains a quantitative assessment method which is applicable to this project. Guidance levels are given for airborne noise at residences and other sensitive land uses.

The quantitative assessment method involves predicting noise levels at sensitive receivers and comparing them with the Noise Management Levels (NMLs). The NML affectation categories for residential receivers have been reproduced from the guideline and are listed in the Table 4 below.

Table 4 NMLs for quantitative assessment at residences

Time of Day	Noise Management Level $L_{Aeq}(15\text{minute})^{1,2}$	How to Apply
Recommended standard hours: Monday to Friday 7 am to 6 pm Saturday 8 am to 1 pm No work on Sundays or public holidays	Noise affected RBL + 10 dB	<p>The noise affected level represents the point above which there may be some community reaction to noise.</p> <ul style="list-style-type: none"> Where the predicted or measured $L_{Aeq}(15\text{minute})$ is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level. The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected 75 dBA	<p>The highly noise affected level represents the point above which there may be strong community reaction to noise.</p> <ul style="list-style-type: none"> Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restricting the hours that the very noisy activities can occur, taking into account: <ol style="list-style-type: none"> Times identified by the community when they are less sensitive to noise (such as before and after school for works near schools, or mid-morning or mid-afternoon for works near residences. If the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside the recommended standard hours above	Noise affected RBL + 5 dB	<ul style="list-style-type: none"> A strong justification would typically be required for works outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable practices have been applied and noise is more than 5 dB above the noise affected level, the proponent should notify the community.

Note 1 Noise levels apply at the property boundary that is most exposed to construction noise, and at a height of 1.5 m above ground level. If the property boundary is more than 30 m from the residence, the location for measuring or predicting noise levels is at the most noise-affected point within 30 m of the residence. Noise levels may be higher at upper floors of the noise affected residence.

Note 2 The RBL is the overall single-figure background noise level measured in each relevant assessment period (during or outside the recommended standard hours). The term RBL is described in detail in the NSW Industrial Noise Policy (EPA 2000).

Construction noise levels at other noise receivers are outlined below:

- Construction noise levels within classrooms other educational institutions is not recommended to exceed 45dBA $L_{Aeq,15\text{minute}}$ when measured internally.
- Construction noise levels at offices and retail outlets are not recommended to exceed 70dBA $L_{Aeq,15\text{minute}}$ when measured externally.

Based on the measured background noise levels summarised in Section 2, and the NMLs outlined above, the construction noise criteria to be used in this assessment are listed in Table 5.

Table 5 NMLs as basis for the acoustic assessment

Receiver Types	NML, dB L _{Aeq} (15minute)		
	<u>Standard Hours</u> Monday to Friday: 7:00am to 6:00pm Saturday: 8:00am to 1:00pm		<u>Outside Standard Hours</u> All hours not listed in the adjacent column.
Residential Receivers	<u>NAFL: 48</u> (RBL (38) + 10dB)	<u>HNAL: 75</u>	RBL + 5dB

4.2 Vibration Criteria

Effects of ground borne vibration on buildings may be segregated into the following three categories:

- Human comfort – vibration in which the occupants or users of the building are inconvenienced or possibly disturbed.
- Effects on building contents – where vibration can cause damage to fixtures, fittings and other non-building related objects.
- Effects on building structures – where vibration can compromise the integrity of the building or structure itself.

4.2.1 Vibration Criteria – Human Comfort

Vibration effects relating specifically to the human comfort aspects of the project are taken from AV-TG. This type of impact can be further categorised and assessed using the appropriate criterion as follows:

- Continuous vibration – from uninterrupted sources.
- Impulsive vibration – up to three instances of sudden impact e.g., dropping heavy items, per monitoring period.
- Intermittent vibration – such as from drilling, compacting or activities that would result in continuous vibration if operated continuously.

Table 6 Continuous vibration acceleration criteria (m/s²) 1 Hz-80 Hz

Location	Assessment period	Preferred Values		Maximum Values	
		z-axis	x- and y-axis	z-axis	x- and y-axis
Critical working areas (e.g. hospital operating theatres, precision laboratories)	Day or night-time	0.0050	0.010	0.10	0.20
Residences	Daytime	0.010	0.0071	0.020	0.014
	Night-time	0.007	0.005	0.014	0.010
Offices, schools, educational institutions and places of worship	Day or night-time	0.020	0.014	0.040	0.028
		0.04	0.029	0.080	0.058
Workshops	Day or night-time	0.04	0.029	0.080	0.058

Table 7 Impulsive vibration acceleration criteria (m/s²) 1 Hz-80 Hz

Location	Assessment period	Preferred Values		Maximum Values	
		z-axis	x- and y-axis	z-axis	x- and y-axis
Critical working areas (e.g. hospital operating theatres, precision laboratories)	Day or night-time	0.0050	0.010	0.10	0.20
Residences	Daytime	0.30	0.21	0.60	0.42
	Night-time	0.10	0.071	0.20	0.14
Offices, schools, educational institutions and places of worship	Day or night-time	0.64	0.46	1.28	0.92
Workshops	Day or night-time	0.64	0.46	1.28	0.92

Table 8 Intermittent vibration impacts criteria (m/s^{1.75}) 1 Hz-80 Hz

Location	Daytime		Night-time	
	Preferred Values	Maximum Values	Preferred Values	Maximum Values
Critical working areas (e.g. hospital operating theatres, precision laboratories)	0.10	0.20	0.10	0.20
Residences	0.20	0.40	0.13	0.26
Offices, schools, educational institutions and places of worship	0.40	0.80	0.40	0.80
Workshops	0.80	1.60	0.80	1.60

4.2.2 Vibration Criteria – Building Contents and Structure

The vibration effects on the building itself are assessed against international standards as follows:

- For transient vibration: British Standard BS 7385: Part 2-1993 "*Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration*" (BSI 1993); and
- For continuous or repetitive vibration: German DIN 4150: Part 3 – 1999 "*Effects of Vibration on Structure*" (DIN 1999).

4.2.3 Standard BS 7385 Part 2 - 1993

For transient vibration, as discussed in standard BS 7385 Part 2-1993, the criteria are based on peak particle velocity (mm/s) which is to be measured at the base of the building. These are summarised below.

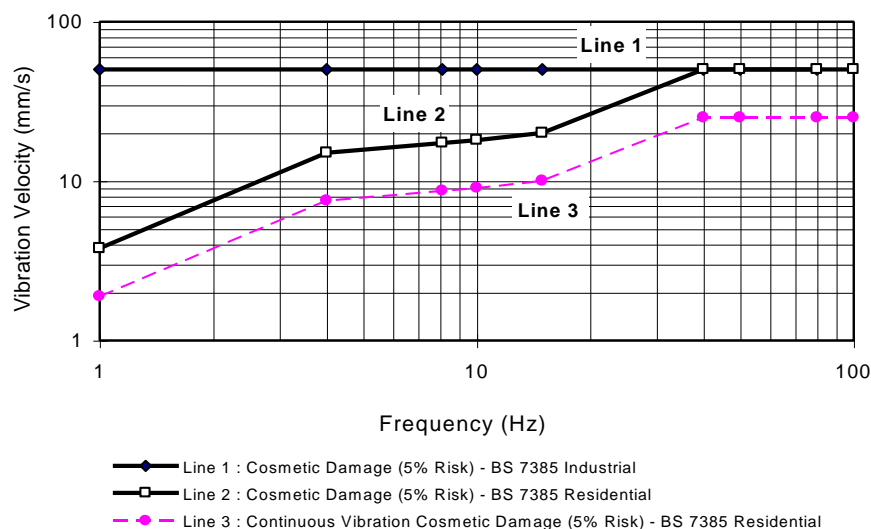
Table 9 Transient vibration criteria as per standard BS 7385 Part 2 - 1993

Line in Figure 2	Type of Building	Peak Component Particle Velocity in Frequency Range of Predominant Pulse	
		4 Hz to 15 Hz	15 Hz and Above
1	Reinforced or framed structures Industrial and heavy commercial buildings.	50 mm/s at 4 Hz and above	
2	Unreinforced or light framed structures Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

Standard BS 7385 Part 2 – 1993 states that the values in Table 9 relate to transient vibration which does not cause resonant responses in buildings.

Where the dynamic loading caused by continuous vibration events is such that it results in dynamic magnification due to resonance (especially at the lower frequencies where lower guide values apply), then the values in Table 9 may need to be reduced by up to 50% (refer to Line 3 in Figure 2).

Figure 2 BS 7385 Part 2 – 1993, graph of transient vibration values for cosmetic damage



In the lower frequency region where strains associated with a given vibration velocity magnitude are higher, the recommended values corresponding to Line 2 are reduced. Below a frequency of 4 Hz, where a high displacement is associated with the relatively low peak component particle velocity value, a maximum displacement of 0.6 mm (zero to peak) is recommended. This displacement is equivalent to a vibration velocity of 3.7 mm/s at 1 Hz.

The standard also states that minor damage is possible at vibration magnitudes which are greater than twice those given in Table 9, and major damage to a building structure may occur at values greater than four times the tabulated values.

Fatigue considerations are also addressed in the standard and it is concluded that unless the calculation indicates that the magnitude and number of load reversals is significant (in respect of the fatigue life of building materials) then the values in Table 9 should not be reduced for fatigue considerations.

4.2.4 Standard DIN 4150 Part 3 - 1999

For continuous or repetitive vibration, standard DIN 4150 Part 3-1999 provides criteria based on values for peak particle velocity (mm/s) measured at the foundation of the building; these are summarised in Table 10. The criteria are frequency dependent and specific to particular categories of structures.

Table 10 Structural damage criteria as per standard DIN 4150 Part 3 - 1999

Type of Structure	Peak Component Particle Velocity, mm/s			Vibration of horizontal plane of highest floor at all frequencies
	Vibration at the foundation at a frequency of 1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz ¹	
Buildings used for commercial purposes, industrial buildings and buildings of similar design	20	20 to 40	40 to 50	40
Dwellings and buildings of similar design and/or use	5	5 to 15	15 to 20	15
Structures that, because of their sensitivity to vibration, do not correspond to those listed in lines 1 and 2 and are of great intrinsic value (e.g. buildings that are under a preservation order)	3	3 to 8	8 to 10	8
<i>Note 1: For frequencies above 100Hz, at least the values specified in this column shall be applied.</i>				

5 NOISE AND VIBRATION ASSESSMENT

5.1 Construction Noise Assessment

Sound power levels have been predicted for the construction tasks identified in the project program. The equipment anticipated for use in each task is based on previous project experience. The sound power levels for the equipment likely to be used for each of the listed tasks are provided in Table 10 below.

Table 11 Summary of predicted sound power levels

Tasks	Equipment	Sound Power Levels (dBA re 1pW)	Aggregate Sound Power Level per Task (dBA re 1pW)
Site Establishment Works	Mobile crane	110	113
	Power hand tools	109	
	Semi Rigid Vehicle ¹	105	
Ground Works and Demolition	Excavator	112	119
	Hand held jack hammer ¹	111	
	Dump truck ¹	104	
	Concrete saw ¹	114	
	Skid steer	110	
	Power hand tools	109	
Structure	Hand held jack hammer ¹	106	117
	Concrete saw ¹	114	
	Power hand tools	109	
	Welder	101	
	Concrete pump truck	110	
	Concrete agitator truck	108	
Internal Works/Refurbishment works	Power hand tools	109	109
Common and External Works	Concrete agitator truck	108	117
	Saw cutter ¹	104	
	Dump truck ¹	104	
	Concrete saw ¹	114	
	Power hand tools	109	

Note 1: An assumed time correction has been applied, this being 5 minutes of operation in any 15-minute interval.

5.2 Predicted Construction Noise Levels

Predicted construction noise levels are presented below for each of the surrounding receivers in accordance with the NSW EPA ICNG.

Note:

- Predicted noise levels presented below are given in a range, this includes the expected minimums as well as the maximums.
- With regards to the maximum noise levels in the range, these are typically experienced when plant/works are within close proximity to a boundary. In our experience whilst these levels above NML's and considered intrusive they will only occur for a short time and is not a representation of noise levels during the entire construction period.

**Table 12 Receiver 1 – Summary of preliminary predicted construction noise levels**

Phase	Activity	Aggregate Sound Power Level (dBA re 1pW)	Predicted <u>Individual</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Predicted <u>Combined</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Criteria dBA L _{Aeq} 15 minutes	Summary of Result
Site Establishment Works	Mobile crane	113	57 to 66	60 to 69	<u>Standard Construction Hours</u> 38 + 10 = 48 <u>Highly Noise Affected Level</u> <u>Standard Construction Hours</u> 75	Works indicatively predicted to have the potential to exceed the noise management level when working near a receiver. Mitigations of construction noise required to be undertaken including measures detailed in Section 6 of this report.
	Power hand tools		56 to 65			
	Semi Rigid Vehicle		47 to 56			
Ground Works and Demolition	Excavator	119	59 to 68	64 to 72		
	Handheld jack hammer		53 to 62			
	Dump truck		46 to 55			
	Concrete saw		56 to 65			
	Skid steer		57 to 66			
	Power hand tools		56 to 65			
Structure	Handheld jack hammer	117	48 to 57	62 to 71		
	Concrete saw		56 to 65			
	Power hand tools		56 to 65			
	Welder		48 to 57			
	Concrete pump truck		57 to 66			
	Concrete agitator truck		55 to 64			
Internal Works	Power hand tools	109	56 to 65	56 to 65		
Common and External Works	Concrete agitator truck	117	55 to 64	61 to 70		
	Saw cutter		46 to 55			
	Dump truck		46 to 55			
	Concrete saw		56 to 65			
	Power hand tools		56 to 65			

**Table 13 Receiver 2 – Summary of predicted construction noise levels**

Phase	Activity	Aggregate Sound Power Level (dBA re 1pW)	Predicted <u>Individual</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Predicted <u>Combined</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Criteria dBA L _{Aeq} 15 minutes	Summary of Result
Site Establishment Works	Mobile crane	113	55 to 65	61 to 68	<u>Standard Construction Hours</u> 38 + 10 = 48 <u>Highly Noise Affected Level</u> <u>Standard Construction Hours</u> 75	Works indicatively predicted to have the potential to exceed the noise management level when working near a receiver. Mitigations of construction noise required to be undertaken including measures detailed in Section 6 of this report.
	Power hand tools		54 to 64			
	Semi Rigid Vehicle		45 to 55			
Ground Works and Demolition	Excavator	119	57 to 67	62 to 71		
	Handheld jack hammer		51 to 61			
	Dump truck		44 to 54			
	Concrete saw		54 to 64			
	Skid steer		55 to 65			
	Power hand tools		54 to 64			
Structure	Handheld jack hammer	117	46 to 56	61 to 70		
	Concrete saw		54 to 64			
	Power hand tools		54 to 64			
	Welder		46 to 56			
	Concrete pump truck		55 to 65			
	Concrete agitator truck		53 to 63			
Internal Works	Power hand tools	109	54 to 64	54 to 64		
Common and External Works	Concrete agitator truck	117	53 to 63	59 to 69		
	Saw cutter		44 to 54			
	Dump truck		44 to 54			
	Concrete saw		54 to 64			
	Power hand tools		54 to 64			

**Table 14 Receiver 3 - Summary of predicted construction noise levels**

Phase	Activity	Aggregate Sound Power Level (dBA re 1pW)	Predicted <u>Individual</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Predicted <u>Combined</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Criteria dBA L _{Aeq} 15 minutes	Summary of Result
Site Establishment Works	Mobile crane	113	58 to 65	61 to 68	<u>Standard Construction Hours</u> 38 + 10 = 48 <u>Highly Noise Affected Level</u> <u>Standard Construction Hours</u> 75	Works indicatively predicted to have the potential to exceed the noise management level when working near a receiver. Mitigations of construction noise required to be undertaken including measures detailed in Section 6 of this report.
	Power hand tools		57 to 64			
	Semi Rigid Vehicle		49 to 55			
Ground Works and Demolition	Excavator	119	60 to 67	65 to 71		
	Handheld jack hammer		55 to 61			
	Dump truck		48 to 54			
	Concrete saw		58 to 64			
	Skid steer		58 to 65			
	Power hand tools		57 to 64			
Structure	Handheld jack hammer	117	50 to 56	64 to 70		
	Concrete saw		58 to 64			
	Power hand tools		57 to 64			
	Welder		49 to 56			
	Concrete pump truck		58 to 65			
	Concrete agitator truck		56 to 63			
Internal Works	Power hand tools	109	57 to 64	57 to 64		
Common and External Works	Concrete agitator truck	117	56 to 63	62 to 69		
	Saw cutter		48 to 54			
	Dump truck		48 to 54			
	Concrete saw		58 to 64			
	Power hand tools		57 to 64			

**Table 15 Receiver 4 - Summary of predicted construction noise levels**

Phase	Activity	Aggregate Sound Power Level (dBA re 1pW)	Predicted <u>Individual</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Predicted <u>Combined</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Criteria dBA L _{Aeq} 15 minutes	Summary of Result
Site Establishment Works	Mobile crane	113	57 to 62	60 to 65	<u>Standard Construction Hours</u> 38 + 10 = 48 <u>Highly Noise Affected Level</u> <u>Standard Construction Hours</u> 75	Works indicatively predicted to have the potential to exceed the noise management level when working near a receiver. Mitigations of construction noise required to be undertaken including measures detailed in Section 6 of this report.
	Power hand tools		56 to 61			
	Semi Rigid Vehicle		47 to 52			
Ground Works and Demolition	Excavator	119	59 to 64	64 to 69		
	Handheld jack hammer		53 to 58			
	Dump truck		46 to 51			
	Concrete saw		56 to 61			
	Skid steer		57 to 62			
	Power hand tools		56 to 61			
Structure	Handheld jack hammer	117	48 to 53	62 to 67		
	Concrete saw		56 to 61			
	Power hand tools		56 to 61			
	Welder		48 to 53			
	Concrete pump truck		57 to 62			
	Concrete agitator truck		55 to 60			
Internal Works	Power hand tools	109	56 to 61	56 to 61		
Common and External Works	Concrete agitator truck	117	55 to 60	61 to 66		
	Saw cutter		46 to 51			
	Dump truck		46 to 51			
	Concrete saw		56 to 61			
	Power hand tools		56 to 61			

**Table 16 Receiver 5 - Summary of predicted construction noise levels – Residence located to the west**

Phase	Activity	Aggregate Sound Power Level (dBA re 1pW)	Predicted <u>Individual</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Predicted <u>Combined</u> Noise Level at Receiver dBA L _{Aeq} 15 minutes	Criteria dBA L _{Aeq} 15 minutes	Summary of Result
Site Establishment Works	Mobile crane	113	54 to 59	57 to 62	<u>Standard Construction Hours</u> 38 + 10 = 48 <u>Highly Noise Affected Level</u> <u>Standard Construction Hours</u> 75	Works indicatively predicted to have the potential to exceed the noise management level when working near a receiver. Mitigations of construction noise required to be undertaken including measures detailed in Section 6 of this report.
	Power hand tools		53 to 58			
	Semi Rigid Vehicle		44 to 49			
Ground Works and Demolition	Excavator	119	56 to 61	61 to 66		
	Handheld jack hammer		50 to 55			
	Dump truck		43 to 48			
	Concrete saw		53 to 58			
	Skid steer		54 to 59			
	Power hand tools		53 to 58			
Structure	Handheld jack hammer	117	45 to 50	60 to 65		
	Concrete saw		53 to 58			
	Power hand tools		53 to 58			
	Welder		45 to 50			
	Concrete pump truck		54 to 59			
	Concrete agitator truck		52 to 57			
Internal Works	Power hand tools	109	53 to 58	53 to 58		
Common and External Works	Concrete agitator truck	117	52 to 57	58 to 63		
	Saw cutter		43 to 48			
	Dump truck		43 to 48			
	Concrete saw		53 to 58			
	Power hand tools		53 to 58			

5.3 Construction Traffic Noise Assessment

For existing residences and other sensitive land uses affected by additional traffic on existing roads, the NSW *Road Noise Policy (RNP)* states that for noise associated with increased road traffic generated by land use developments, any increase in the total traffic noise level should be limited to 2 dB during both day and night-time periods. An increase of 2 dB represents a minor impact that is considered barely perceptible to the average person.

It is proposed that the construction traffic would access the site via Binalong Road to the east of the site. All construction traffic will access the site and use the surrounding roadways in accordance with the site Construction Management plan.

5.4 Vibration Assessment

In order to maintain compliance with the human comfort vibration criteria discussed in Section 4.2, it is recommended that the indicative safe distances listed in table below should be maintained. These indicative safe distances should be validated prior to the start of construction works by undertaking measurements of vibration levels generated by construction and demolition equipment by the contractor.

Additionally, any vibration levels should be assessed in accordance with the criteria discussed in Section 4.2.

Table 17 Recommended indicative safe working distances for vibration intensive plant

Plant	Rating / Description	Safe Working Distances (m)	
		Cosmetic Damage (BS 7385: Part 2 DIN 4150: Part 3)	Human Comfort (AVTG)
Vibratory roller	< 50 kN (Typically 1 – 2 tonnes)	5	15 – 20
	< 100 kN (Typically 2 – 4 tonnes)	6	20
	< 200 kN (Typically 4 – 6 tonnes)	12	40
	< 300 kN (Typically 7 – 13 tonnes)	15	100
	> 300 kN (Typically more than 13 tonnes)	20	100
Small hydraulic hammer	300 kg, typically 5 – 12 tonnes excavator	2	7
Medium hydraulic hammer	900 kg, typically 12 – 18 tonnes excavator	7	23
Large hydraulic hammer	1600 kg, typically 18 – 34 tonnes excavator	22	73
Vibratory pile driver	Sheet piles	2 – 20	20
Jackhammer	Hand held	1	Avoid contact with structure and steel reinforcements

6 NOISE AND VIBRATION MANAGEMENT PLAN

6.1 Acoustic Management Procedures

Table 18 below summarises the management procedures recommended for airborne noise and vibration impact. These procedures are also further discussed in the report as well as recommended mitigation measures. Hence, where applicable, links to further references are provided in Table 18.

Table 18 Summary of mitigation procedures

Procedure	Abbreviation	Description	Further Reference
General Management Measures	GMM	Introduce best-practice general mitigation measures in the workplace which are aimed at reducing the acoustic impact onto the nearest affected receivers.	Refer to Section 6 For noise impact, also refer to Section 6.1 For vibration impact, also refer to Section 6.3.1
Project Notification	PN	Issue project updates to stakeholders, discussing overviews of current and upcoming works. Advanced warning of potential disruptions can be included. Content and length to be determined on a project-by-project basis.	Refer to Section 6.
Verification Monitoring	V	Monitoring to comprise attended or unattended acoustic surveys. The purpose of the monitoring is to confirm measured levels are consistent with the predictions in the acoustic assessment, and to verify that the mitigation procedures are appropriate for the affected receivers. If the measured levels are higher than those predicted, then the measures will need to be reviewed and the management plan will need to be amended.	For noise impact, refer to Section 6 and Section 6.2.3. For vibration impact, refer to Section 6.3.2
Complaints Management System	CMS	Implement a management system which includes procedures for receiving and addressing complaints from affected stakeholders	Refer to Section 6.6
Specific Notification	SN	Individual letters or phone calls to notify stakeholders that noise levels are likely to exceed noise objectives. Alternatively, contractor could visit stakeholders individually in order to brief them in regards to the noise impact and the mitigation measures that will be implemented.	Refer to Section 6.
Respite Offer	RO	Offer provided to stakeholders subjected to an ongoing impact.	-
Alternative Construction Methodology	AC	Contractor to consider alternative construction options that achieve compliance with relevant criteria. Alternative option to be determined on a case-by-case basis. It is recommended that the selection of the alternative option should also be determined by considering the assessment of on-site measurements (refer to Verification Monitoring above).	-

The application of these procedures is in relation to the exceedances over the relevant criteria. For airborne noise, the criteria are based on NMLs. The allocation of these procedures is discussed in Section 6.1.1

For vibration, the criteria either correspond to human comfort, building damage or scientific and medical equipment. The application of these procedures is discussed in Section 6.1.2.

6.1.1 Allocation of Noise Management Procedures

For residences, the management procedures have been allocated based on noise level exceedances at the affected properties, which occur over the designated NMLs (refer to section 3). The allocation of these procedures is summarised in Table 19 below.

Table 19 Allocation of noise management procedures – residential receivers

Construction Hours	Exceedance over NML (dB)	Management Procedures (see definition above)
Approved Construction Hours	0 - 3	GMM
Mon – Fri: 7:00 am to 7:00 pm	4 - 10	GMM, PN, V ¹ , CMS, AC
Sat: 8:00 am – 1:00 pm	> 10	GMM, PN, V, CMS, SN, AC
Outside Standard Hours	0 - 10	GMM, AC
Mon – Fri: 7:00 am to 8:00 am	11 - 20	GMM, PN, V ¹ , CMS, AC
Sat: 7:00 am to 8:00 am	> 20	GMM, PN, V, CMS, SN, RO, AC
<i>Notes</i>		
1. Verification monitoring to be undertaken upon complaints received from affected receivers		

Please note the following regarding the allocation of these procedures:

- In addition to the above the projects *Conditions of Consent* require works to include the following:
 - Rock Breaking, rock hammering, sheet piling and similar activities may only be carried out between the following hours:
 - 9am to 12 midday – Monday to Friday.
 - 2 pm to 5pm – Monday to Friday.
 - 9am to 12 midday – Saturday's.
- The exceedances have been estimated as part of the acoustic assessment, and these are summarised in Section 5.2.
- The allocation of procedures is based on the assumptions used for noise level predictions (refer to Section 5.1 and 5.2). Consequently, these allocations can be further refined once additional details of the construction program become available.

6.1.2 Allocation of Vibration Management Procedures

Table 20 below summarises the vibration management procedures to be adopted based on exceedance scenarios (i.e., whether the exceedance occurs over human comfort criteria, building damage criteria, or criteria for scientific and medical equipment). Please note these management procedures apply for any type of affected receiver (i.e., for residences as well as non-residential receivers).

Table 20 Allocation of vibration management procedures

Construction Hours	Exceedance Scenario	Management Procedures
Approved Construction Hours	Over human comfort criteria (refer to Section 3)	GMM, PN, V, RO
	Over building damage criteria (refer to Section 3)	GMM, V, AC
Outside Standard Hours	Over human comfort criteria (refer to Section 3)	GMM, SN, V, RO, CMS
	Over building damage criteria (refer to Section 3)	GMM, V, AC

6.2 Site Specific Noise Mitigation Measures (including High Noise Affected Levels)

Predicted noise levels outlined in section 5.2 indicate exceedances above the Noise Management Levels (NMLs) as well as the Highly Noise Affected Level (HNAL) when in proximity to a boundary. To militate against any exceedances, the site may need to introduce periods of respite for activities which are creating noise levels above the HNAL and including activities such as piling, hydraulic hammering and the like (i.e. greater than 75dBA). See below.

Table 21 Recommended Respite Periods

Monday to Friday	Saturday
Prior to 9:00am – No noisy works (<u>Respite Period</u>)	Prior to 9:00am – No noisy works (<u>Respite Period</u>)
9:00am to 12:00pm – Works	9:00am to 12:00pm – Works
12:00pm to 2:00pm – No noisy works (<u>Respite Period</u>)	After 12:00pm – No noisy works (<u>Respite Period</u>)
2:00pm to 5:00pm – Works	
After 5pm – No noisy works (<u>Respite Period</u>)	

Details of the required respite time include above are based on the requirements of the project SSD approval.

In June 2022, SINSW consulted the community about several noise mitigation strategies to be used during construction via a project update delivered to all nearby homes and businesses. The noise mitigation strategies included: Attended noise monitoring; compliance with the 'Construction Hours' included in the SSD application consent conditions; rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between 9am to 12pm, Monday to Friday; and task specific acoustic shielding or relocation, where practical, to minimise noise from the site. SINSW asked recipients to contact the agency via phone or email if they wished to recommend additional strategies, however, no submissions were received

6.2.1 General Mitigation Measures

The contractor will, where reasonable and feasible, apply best practice noise mitigation measures. These measures shall include the following:

- Maximising the offset distance between plant items and nearby noise sensitive receivers.
- Preventing noisy plant working simultaneously and adjacent to sensitive receivers.
- Minimising consecutive works in the same site area.
- Orienting equipment away from noise sensitive areas.
- Carrying out loading and unloading away from noise sensitive areas.

In order to minimise noise impacts during the works, the contractor will take all reasonable and feasible measures to mitigate noise effects.

The contractor will also take reasonable steps to control noise from all plant and equipment. Examples of appropriate noise control include efficient silencers and low noise mufflers.

Construction works are to be conducted in accordance with the Conditions of Consent, which includes item C15 and include the following:

The Applicant must implement, where practicable and without compromising the safety of construction staff and members of the public, the use of 'quackers' to ensure noise impacts on surrounding noise sensitive receivers are minimised.

The contractor should apply all feasible and reasonable work practices to meet the NMLs and inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels, duration of noise generating construction works, and the contact details for the proposal. Works will be undertaken in conjunction with the Community Communication Strategy, as required by Item B7 of the Conditions of Consent.

All construction vehicles (including concrete agitator trucks) do not arrive at the site or surrounding residential precincts outside of the construction hours of works outlined in the consent conditions, including item C4, which includes the following:

- 7am to 6pm Monday to Friday
- 8am to 1pm Saturdays

6.2.2 Noise Monitoring

Noise monitoring will be performed by an acoustical consultant directly engaged by the contractor.

Noise monitoring is recommended to be undertaken by attended noise measurements at the start of any new phase of works (i.e. demolition, excavation or remediation works etc.). The statistical parameters to be measured should include the following noise descriptors: LAmin, LA90, LA10, LA1, LAmax and LAeq. Unattended noise measurements should be conducted over consecutive 15 minute periods at the commencement of demolition and ground works on the site.

This monitoring should also be complemented by undertaking attended noise measurements in order to:

- Differentiate between construction noise sources and other extraneous noise events (such as road traffic and aircraft noise)
- Note and identify any excessive noise emitting machinery or operation.

In addition to the above detailed measurements, should any complaints be received which have not been determined previously, it should be confirmed by conducting additional attended noise measurements.

The survey methodology and any equipment should comply with the requirements discussed in Standard AS 1055.1-1997.

6.2.3 Noise Mitigation Measures for Non-Residential Receivers

Where exceedances have been identified in Section 5, the following mitigation measures are recommended:

- Undertake general mitigation measures as discussed in Section 6.
- Issue project updates to tenants in affected premises. The updates can include overview of current and upcoming works, as well as advanced warning of potential disruptions. These updates can also be issued through an email distribution list or via social media and in accordance with consent condition B7 requiring a Community Communication Strategy.
- Signage to be posted in order to provide stakeholders information regarding project details, emergency contacts and enquiry contact information in accordance with consent condition C1 requiring a site notice.

6.2.4 Alternate Equipment or Process

Exceedance of the site's NMLs should result in an investigation as to whether alternate equipment could be used, or a difference process could be undertaken. The assessment is required to be undertaken in coordination with the contractors undertaking the works to be conducted.

6.2.5 Acoustic Enclosures/Screening

Typically, on a construction site there are three different types of plant that will be used: mobile plant (i.e., excavators, skid steers, etc.), semi mobile plant (i.e., hand tools generally) or static plant i.e. (diesel generators).

For plant items which are static it is recommended that, in the event exceedances are being measured due to operation of the plant item, an acoustic enclosure/screen is constructed to reduce impacts. These systems can be constructed from Fibre Cement (FC) sheeting or, if airflow is required, acoustic attenuators or louvres.

For semi mobile plant, relocation of plant should be investigated to either be operated in an enclosed space or at locations away from a receiver.

With mobile plant it is generally not possible to treat these sources. However, investigations into the machine itself may result in a reduction of noise (i.e., mufflers/attenuators etc) and proactive mechanical maintenance.

6.3 Vibration Mitigation Measures

6.3.1 General Mitigation Measures

As part of the CNVMP, the following vibration mitigation measures should be implemented:

- Any vibration generating plant and equipment is to be in areas within the site in order to lower the vibration impacts to surrounding receivers.
- Investigate the feasibility of rescheduling the hours of operation of major vibration generating plant and equipment to within the allowable time set within the consent conditions which include rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between the following hours:
 - (a) 9am to 12pm, Monday to Friday;
 - (b) 2pm to 5pm Monday to Friday; and
 - (c) 9am to 12pm, Saturday.
- Use lower vibration generating items of construction plant and equipment; that is, smaller capacity plant.
- Minimise conducting vibration generating works consecutively in the same area (if applicable).
- Schedule a minimum respite period of at least 30 minutes after a period of continuous 2 hours of work.
- Use only dampened rock breakers and/or “city” rock breakers to minimise the impacts associated with rock breaking works.
- Conduct attended measurements of vibration generating plant at commencement of works in order to validate the indicative safe working distances advised in Table 17 and, consequently, to establish safe working distances suitable to the project. Measurements should be conducted at the nearest affected property boundary. These safe working distances should be defined by considering the vibration criteria discussed in Section 0 (i.e., criteria for structural damage, human comfort and impact to scientific or medical equipment).

6.3.2 Vibration Monitoring

Vibration monitoring can be undertaken continuously at the nearest most affected structures.

The monitoring location would be on a stiff part of the structure (at the foundation) on the side of the structure adjacent to the subject demolition and construction works.

The vibration monitoring system will be configured to record the peak vibration levels and to trigger an alarm when predetermined vibration thresholds are exceeded. The thresholds correspond to an “Operator Warning Level” and an “Operator Halt Level”, where the Warning Level is 75% of the Halt Level. The Halt Level should be determined based on the vibration criteria for building contents and structure (detailed in section 4.2).

Exceedance of the “Operator Warning Level” would not require excavation or demolition work to cease, but rather, alerts the site manager to proceed with caution at a reduced force or load.

An exceedance of the “Operator Halt Level” would require the contractor to implement an alternative excavation technique pending further analysis of the vibration frequency content in order to determine any potential exceedance of the criteria.

The vibration monitoring equipment would be downloaded and analysed by the acoustical consultant monthly including reporting of the collected data.

Reports of the measured vibration levels and their likely impacts would be prepared by the acoustical consultant and issued to the contractor monthly.

Vibration monitoring should be undertaken including the following:

1. Vibration Monitoring to include long term continuous vibration logging.
2. Monitors set to record maximum vibration levels including Peak Particle Velocity (PPV) magnitudes.
3. Monitors are required to be SMS enabled such that any events recorded above 'alert levels can be instantaneously sent to suitable builder, acoustic consultant and contractor representatives.
4. In the event results re received above 'alert levels the following response to events are required as detailed in the table below.
5. Vibration monitoring should be undertaken for the periods including demolition, exaction and construction of the building structure including installation of concrete to ground floor as a minimum or on agreement with neighbouring stake holders in the event monitoring details no negative impacts during the construction of the project.

Table 22 Required Response to Vibration Events

Location/ Receiver Type	Event Type		
	Trigger	Alert	Alarm, Stop Work
Surrounding Residential Dwellings	6 mm/s	7 mm/s	8 mm/s
<i>See Section below for response to Event Types</i>			

The required response to recorded event types detailed in the table above are included in the following table.

Table 23 Required Response to Vibration Events

Event Type	Required Response
Trigger level	All events above the trigger level are required to be recorded by the vibration monitors.
Alert	<p>Temporarily cease the vibration generating activity and assess the reason for vibration exceedances. Modify the related construction practice to prevent future exceedances. Keep records of subsequent breaches to demonstrate that vibrations for modified activity do not reach Alert Level.</p> <p>All <i>Alert</i> events are to be SMS messaged to the building contractor site manager, subcontractor and acoustic consultant.</p>
Alarm	<p>Stop Work Event</p> <p>All <i>Alarm</i> events are to be SMS messaged to a relevant Richard Crookes, subcontractor and acoustic consultant.</p> <p>The activity generating the vibration levels is to be stopped immediately.</p> <p>Suitable representatives of the building contractor, the relevant Subcontractor, Heritage Consultant and acoustic consultant.</p> <p>Vibration monitoring report to be completed. Visual assessment of affected property will be conducted to assess whether damage is evident.</p> <p>The item/s of work generating the vibration events is not be recommenced until an action plan is agreed and implemented.</p>

6.4 Noise and Vibration Monitoring

As part of the management of noise from the proposed construction activities to be undertaken on the site the following noise and vibration monitoring is to be undertaken:

1. Noise Monitoring– Attended noise monitoring of excavation and construction activities is to be undertaken during the following periods:
 - a. Commencement of any rock breaking or sawing on the site.
 - b. In response to any ongoing complaints received from neighbours.
2. Vibration – Based on the proximity of the surrounding receivers to the works magnitudes of vibration resulting from construction activities required to be undertaken on the site are not expected to approach vibration limits detailed in Section 4.2 of this report, therefore permanent continuous vibration monitoring is not recommended.

Attended vibration monitoring is to be undertaken at the following periods:

- a. receiver location in the event complaints resulting from construction activities resulting from the perception of vibration are experienced by the occupants of buildings within the vicinity of the site.

6.5 SINSW Complaints management process as outlined in the Community Communication Report (CCR)

6.5.1 Enquiries and complaints management

SINSW manages enquiries, and complaints in a timely and responsive manner and detailed in the SINSW Community Consultation Summary report.

Prior to project delivery, a complaint could be related to lack of community consultation, design of the project, lack of project progress, etc.

During project delivery, a complaint is defined as in regard to construction impacts – such as – safety, dust, noise, traffic, congestion, loss of parking, contamination, loss of amenity, hours of work, property damage, property access, service disruption, conduct or behaviour of construction workers, other environmental impacts, unplanned or uncommunicated disruption to the school.

As per our planning approval conditions, a complaints register is updated monthly and is publicly available on the project's website page on the SINSW website. The complaints register will record the number of complaints received, the nature of the complaints and how the complaint was resolved as detailed in the complaints handling procedure is set out in the Community Communication Strategy.

If the Community Communication Strategy Complaints Procedure/process is updated, that document and process takes precedence over this CNVMSP.

6.5.2 Complaints management process

All complaints will be conducted using the SINSW Community Communication Strategy for the project. Section 6, namely Section 6.5 of the Community Consultation Report, has been included below as a snapshot of the Community Consultation Report. Any face to face complaints will be directed to the hotline as detailed in the Community Communication Strategy. The Community Consultation Strategy serves as the primary complaints management

In June 2022, SINSW consulted the community about several noise mitigation strategies to be used during construction via a project update delivered to all nearby homes and businesses. The noise mitigation strategies included: Attended noise monitoring; compliance with the 'Construction Hours' included in the SSD application consent conditions; rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between 9am to 12pm, Monday to Friday; and task specific acoustic shielding or relocation, where practical, to minimise noise from the site. SINSW asked recipients to contact the agency via phone or email if they wished to recommend additional strategies, however, no submissions were received

6. Protocols

6.1. Media engagement

SINSW manages all media relations activities, and is responsible for:

- a) Responding to all media enquiries and instigating all proactive media contact.
- b) Media interviews and delegation to SINSW media spokespeople who are authorised to speak to the media on behalf of the project
- c) Informing the Minister's Office and SINSW project team members and communications representatives of all media relations activities in advance and providing the opportunity to participate in events where possible.

6.2. Site visits

SINSW, in partnership with the Department of Education Schools Performance, organises and hosts guided project site tours and media briefings as required by the Minister's Office. The Project Team will ensure the required visitor site inductions are undertaken and that all required Personal Protective Equipment (PPE) is worn.

For media site visits and events, SINSW creates, or contributes to, the production of an event pack. This will include an event brief, media release, speaking notes and Q&As.

6.3. Social, online and digital media

SINSW initiates and maintains all social and online media channels. These channels may include the Department's Facebook and Twitter, and SINSW's LinkedIn and website.

6.4. Stakeholder and community notification process

Notification letters or project updates will be distributed to the community and stakeholders in advance of any activity with the potential to cause impacts.

Depending on the work activity and stakeholder, notifications are primarily distributed via letterbox drop, via the school, electronically via email, as well as uploaded to the SINSW project webpage. If appropriate, notification may also be delivered in person via door knocks, or via phone call or text message, or one-on-one briefings.

Notifications will be written in plain English and will:

- outline the reason that the work is required
- outline the location, nature, and duration of the proposed works
- outline date/s of work, where practicable
- outline work hours
- include a diagram that clearly indicates the location of the works, where required
- include a 1300 community contact number, project email address and website details
- Provide details for a translation service, where required.

Table 5 below outlines minimum notification periods that will be targeted for work activities with the potential to impact sensitive receivers. All notification periods prescribed within development approvals or by approving bodies will be adhered to.

Regular construction updates regarding the general work program and significant milestones will also be provided to the school community and neighbouring properties throughout construction.

The contractor will provide SINSW with the information necessary to meet the notification requirements and target timeframes contained, where practicable.

Table 5: Target community notification periods

Notification period	Work activity
Same day (or as soon as practical)	Major incident, emergency works/unforeseen events
	Unplanned out of hours work (notification provided to affected residents by the contractor before undertaking the works or as soon as practical)
	Unexpected hazardous material find or incident (e.g. asbestos, lead, chemical spill or other harmful material)
7 days	Start of works or site establishment
	Works outside of the site boundary
	Planned out of hours work or change to approved work hours
	Planned investigation and remediation of hazardous materials including asbestos
	Phase of high noise generating works including demolition, tree removal, rock breaking, rock hammering, piling or similar
	Major traffic or pedestrian access changes including parking impacts, detours, and road diversions/closures
	Operational changes for the school community including to school drop-off points, entry and exit points, bus stops, and play space
3 months	Major impacts to school community, including relocation to temporary school, changes to student intake area or similar

6.5. Enquiries and complaints management

SINSW manages enquiries (*called interactions in our Customer Relationship Management (CRM) software, Darzin*), and complaints in a timely and responsive manner.

Prior to project delivery, a complaint could be related to lack of community consultation, design of the project, lack of project progress, etc.

During project delivery (construction), a complaint is defined as in regards to construction impacts – *such as* – safety, dust, noise, traffic, congestion, loss of parking, contamination, loss of amenity, hours of work, property damage, property access, service disruption, conduct or behaviour of construction workers, other environmental impacts, unplanned or uncommunicated disruption to the school.

If a phone call, email or face-to-face complaint is received during construction, it will be acknowledged within 2 working days and logged in our CRM, actively managed, closed out and resolved by SINSW within 10 days, where practicable. Where complaints are unable to be resolved within this timeframe the complainant will be provided with regular updates regarding the complaint resolution process.

A 24-hour contact number for the project site manager will be displayed at the site and can be shared with the community as necessary for any urgent issues that need to be addressed on site, outside of business hours.

As per our planning approval conditions, a complaints register is updated monthly, or as required by the planning authority, and is publicly available on the project's webpage on the SINSW website.

If the complainant is not satisfied with SINSW's response, and they approach SINSW for rectification, the process will involve a secondary review of their complaint as per the outlined process.

Complaints will be escalated when:

- An activity generates three complaints within a 24-hour period (separate complainants).

- Any construction site receives three different complaints within a 24-hour period.
- A single complainant reports three or more complaints within a three-day period.
- A complainant threatens to escalate their issue to the media or government representative.
- The complaint was avoidable.
- The complaint relates to a compliance matter.
- The complaint relates to a community safety matter.
- The complaint relates to a property damage claim.

Complaints will be first escalated to the Senior Manager, Community and Engagement or Director of Communications for SINSW as the designated complaints handling management representatives for our projects. Further escalation will be made to the Executive Director, Office of the Chief Executive to mediate if required.

If a complaint still cannot be resolved by SINSW to the satisfaction of the complainant, we will advise them to contact the NSW Ombudsman - <https://www.ombo.nsw.gov.au/complaints>.

Table 6 below outlines target timeframes for responding to enquiries and complaints, through each correspondence method:

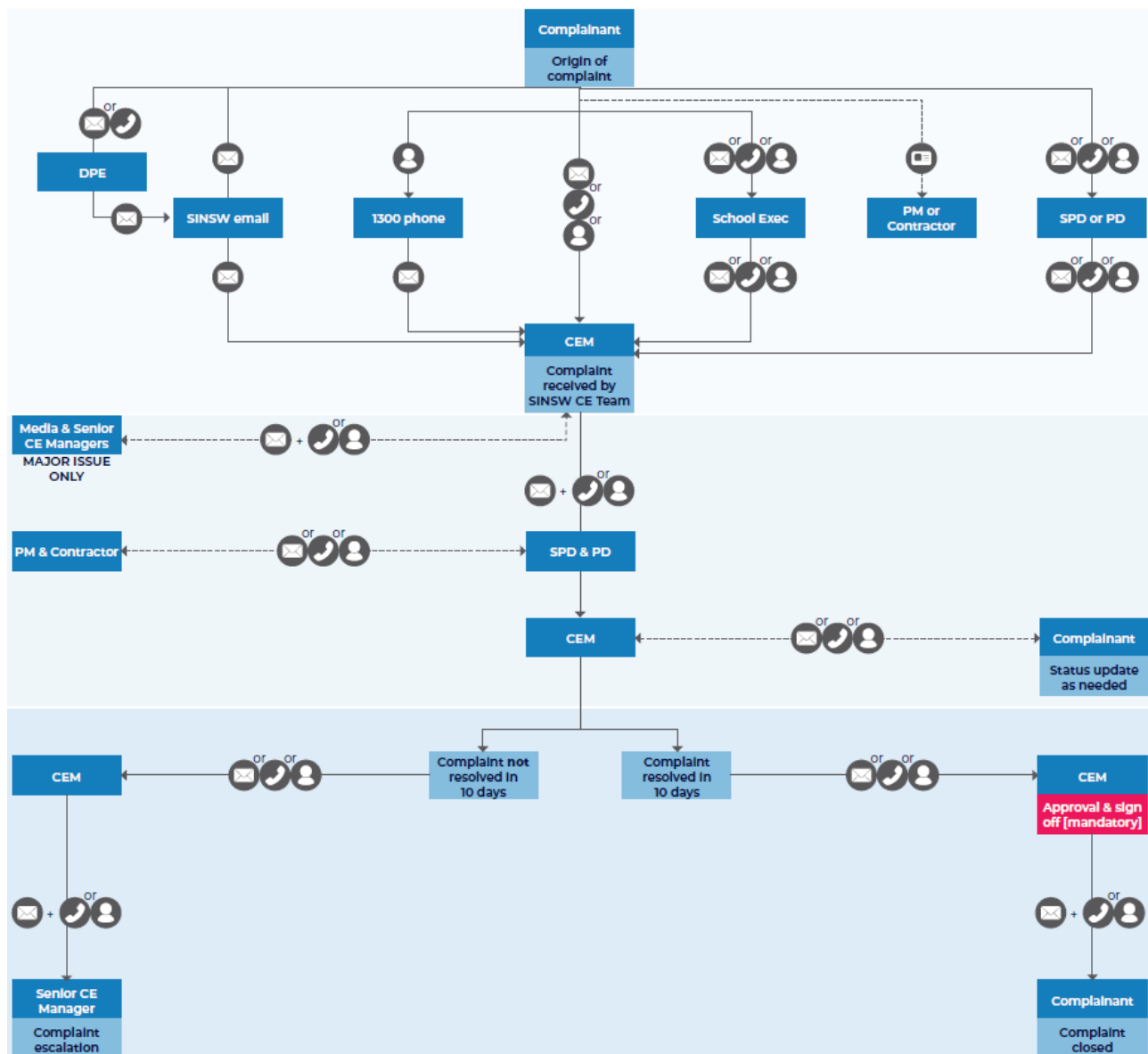
Table 6: Complaint and enquiry response time

Complaint	Acknowledgement times	Response times
Phone call during business hours	At time of call.	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Phone call after hours*	Within two (2) hours of receiving message upon returning to office.	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Email during business hours	At time of email (automatic response)	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Email outside of business hours	At time of email (automatic response)	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Interaction/ Enquiry		
Phone call during business hours	At time of call.	Interaction to be logged and closed out within 10 days, where practicable.
Phone call after hours	Within two (2) hours of receiving message upon returning to office.	Interaction to be logged and closed out within 10 days, where practicable.
Email during business hours	At time of email (automatic response)	Interaction to be logged and closed out within 10 days, where practicable.

Complaint	Acknowledgement times	Response times
Email outside of business hours	At time of email (automatic response)	Interaction to be logged and closed out within 10 days, where practicable.
Letter	N/A	Interaction to be logged and closed out within 10 days following receipt, where practicable.

The below diagram outlines our internal process for managing complaints.

Figure 3 - Internal Complaints Process



- (b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).

6.6.1. Roles and responsibilities following an incident

In the event of an incident, once emergency services are contacted, the incident must be immediately reported to the SINSW Senior Project Director who will inform:

- a) SINSW Executive Director
- b) SINSW Community Engagement Manager
- c) SINSW Senior Manager, Community Engagement
- d) SINSW Communications Director

SINSW Communications Director will:

- a) Lead and manage all communications with the Minister's office in the event of an incident, with assistance as required
- b) Direct all communications with media to the SINSW Media Manager in the first instance for management
- c) Notify all other key project stakeholders of an incident.

The school and local community will be notified within 24 hours in the event of an incident, as per our notification timelines in Table 5.

The SINSW Senior Project Director will issue a written incident notification to Department of Planning & Environment (DPE) and Local Council (if required) immediately following the incident to set out the location and nature of the incident.

This must be followed within seven days following the incident of a written notification to the Department of Planning and Environment that:

- (a) identifies the development and application number;
- (b) provides details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
- (c) identifies how the incident was detected;
- (d) identifies when SINSW became aware of the incident;
- (e) identify any actual or potential non-compliance with conditions of consent;
- (f) describes what immediate steps were taken in relation to the incident;
- (g) identifies further action(s) that will be taken in relation to the incident; and
- (h) provides the contact information for further communication regarding the incident (the Senior Project Director).

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, SINSW will provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below:

- (a) a summary of the incident;
- (b) outcomes of an incident investigation, including identification of the cause of the incident;
- (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- (d) details of any communication with other stakeholders regarding the incident.

6.7. Reporting process

Throughout the project, data will be recorded on participation levels both face to face and online, a record of engagement tools and activities carried out in addition to queries received and feedback against emerging themes.

Stakeholder and community sentiment will be evaluated throughout to ensure effectiveness of the engagement strategy and to inform future activities.

A monthly report is prepared for all SINSW projects, which includes but is not limited to:

- a) Stakeholder engagement reporting – numbers of forums, participation levels and a summary of the outcomes

6.5.3 Complaints in common community languages

Complaints can be made in common community languages using the Translating and Interpreting Service (TIS), managed by the Department of Home Affairs. Community members can be connected to an interpreter by calling TIS on 131 450. TIS contact details are included on all project communications. Once TIS has the interpreter on the line, the interpreter and community member are connected to School Infrastructure and phone interpretation can begin. School Infrastructure NSW receives the complaint via the translator and begins the complaints management process as outlined above.

6.5.4 Community Notifications

Prior to the works onsite being undertaken, it is recommended that community consultation with the neighbouring affected parties be undertaken. These include the locations detailed in the figure below.

Figure 3 Required Community Notification Area



Communication notification, should not be limited to the beginning of the onsite works but throughout, providing the community with constant updates on the progress and upcoming works. In our experience these could include:

- Project website.
- Email notifications; and
- Letterbox drops.

In June 2022, SINSW consulted the community about several noise mitigation strategies to be used during construction via a project update delivered to all nearby homes and businesses. The noise mitigation strategies included: Attended noise monitoring; compliance with the 'Construction Hours' included in the SSD application consent conditions; rock breaking, rock hammering, sheet piling, pile driving and similar activities may only be carried out between 9am to 12pm, Monday to Friday; and task specific acoustic shielding or relocation, where practical, to minimise noise from the site. SINSW asked recipients to contact the agency via phone or email if they wished to recommend additional strategies, however, no submissions were received.

6.5.5 Community Engagement

It is proposed that throughout the duration of the project, continued meetings with both the school principals will be undertaken on a regular basis to monitor and mitigate any impacts of construction noise and vibration on the school community.

Community engagement has been undertaken during the design and approvals basis of the project and detailed in the Community Communication Strategy in accordance with condition B7.

6.6 Complaints Management System

Should complaints arise they must be dealt with in a responsible and uniform manner, therefore, a management system to deal with complaints is detailed above.

Complaints will be undertaken in conjunction with the SINSW complaints management system as detailed in the Community Consultant Summary Report and the Community Communication Strategy documents developed by SINSW to ensure compliance with Condition B7.

6.7 Contingency Plans

Contingency plans are required to address noise or vibration problems if excessive levels are measured at surrounding sensitive receivers and/or if justified complaints occur. Such plans include:

- Stop the onsite works.
- Identify the source of the main equipment within specific areas of the site which is producing the most construction noise and vibration at the sensitive receivers; and
- Review the identified equipment and determine if an alternate piece of equipment can be used or the process can be altered.
- In the event an alternate piece of equipment or process can be used, works can re-commence.
- In the event an alternate piece of equipment or process cannot be determined implement a construction assessment to be performed by a suitably qualified acoustic consultant.

The building contractor shall have access to view the Contractor's noise measurement records on request. The Superintendent may undertake noise monitoring if and when required.

6.8 General Mitigation Measures (Australia Standard 2436-2010)

As well as the above project specific noise mitigation controls, AS 2436-2010 "*Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites*" sets out numerous practical recommendations to assist in mitigating construction noise emissions. Examples of strategies that could be implemented on the subject project are listed below, including the typical noise reduction achieved, where applicable.

6.8.1 Additional Recommendations

- Regular reinforcement (such as at toolbox talks) of the need to minimise noise and vibration.
- Regular identification of noisy activities and adoption of improvement techniques.
- Avoiding the use of portable radios, public address systems or other methods of site communication that may unnecessarily impact upon nearby sensitive receivers.
- Where possible, avoiding the use of equipment that generates impulsive noise.
- Minimising the need for vehicle reversing for example (particularly at night), by arranging for one-way site traffic routes.
- Use of broadband audible alarms on vehicles and elevating work platforms used on site.
- Minimising the movement of materials and plant and unnecessary metal-on-metal contact.
- Minimising truck movements.

6.8.2 Plant and Equipment

- Choosing quieter plant and equipment based on the optimal power and size to most efficiently perform the required tasks.
- Selecting plant and equipment with low vibration generation characteristics.
- Operating plant and equipment in the quietest and most efficient manner.

6.8.3 On Site Noise Mitigation

- Maximising the distance between noise activities and noise sensitive land uses.
- Installing purpose-built noise barriers, acoustic sheds and enclosures.

6.8.4 Work Scheduling

- Providing respite periods which could include restricting very noisy activities to time periods that least affect the nearby noise sensitive locations, restricting the number of nights that after-hours work is conducted near residences or by determining any specific requirements.
- Scheduling work to coincide with non-sensitive periods.
- Planning deliveries and access to the site to occur quietly and efficiently and organising parking only within designated areas located away from the sensitive receivers.
- Optimising the number of deliveries to the site by amalgamating loads where possible and scheduling arrivals within designated hours.
- Including contract conditions that include penalties for non-compliance with reasonable instructions by the principal to minimise noise or arrange suitable scheduling.



6.8.5 Source Noise Control Strategies

Some ways of controlling noise at the source are:

- Where reasonably practical, noisy plant or processes should be replaced by less noisy alternatives.
- Modify existing equipment: Engines and exhausts are typically the dominant noise sources on mobile plant such as cranes, graders, excavators, trucks, etc. In order to minimise noise emissions, residential grade mufflers should be fitted on all mobile plant utilised on site.
- Siting of equipment: locating noisy equipment behind structures that act as barriers, or at the greatest distance from the noise-sensitive area; or orienting the equipment so that noise emissions are directed away from any sensitive areas, to achieve the maximum attenuation of noise.
- Regular and effective maintenance.

6.8.6 Miscellaneous Recommendations

Deliveries should be undertaken, where possible, during standard construction hours.

Maximise hammer penetration (and reduce blows) by using sharp hammer tips. Keep stocks of sharp profiles at site and monitor the profiles in use.

It is advised that mobile plant and trucks operating on site for a significant portion of the project are to have reversing alarm noise emissions minimised. This is to be implemented subject to recognising the need to maintain occupational safety standards without compromising the safety of construction staff and members of the public.

No public address system should be used on site (except for emergency purposes).

7 CONCLUSION

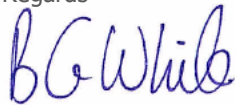
This report details the Construction Noise and Vibration Management Sub Plan for the construction works to be undertaken at Glenwood High School.

An assessment of noise and vibration impacts from the required processes to be undertaken during the construction period of the project (including ground works and construction) has been undertaken and suitable treatments, management controls, perioding measurements and community engagement has been detailed in this report.

Providing the recommendations in this report are included in the construction of the site, compliance with the relevant EPA's *Interim Construction Noise Guideline* and the projects *Consent* including the SSD 23512960 and the project REF will be achieved.

For any additional information please do not hesitate to contact the person below.

Regards

A handwritten signature in blue ink that reads 'BG White'.

Ben White
Director

Pulse White Noise Acoustics



APPENDIX A: ACOUSTIC GLOSSARY

The following is a brief description of the acoustic terminology used in this report:

Ambient Sound	The totally encompassing sound in a given situation at a given time, usually composed of sound from all sources near and far.																				
Audible Range	The limits of frequency which are audible or heard as sound. The normal ear in young adults detects sound having frequencies in the region 20 Hz to 20 kHz, although it is possible for some people to detect frequencies outside these limits.																				
Character, acoustic	The total of the qualities making up the individuality of the noise. The pitch or shape of a sound's frequency content (spectrum) dictate a sound's character.																				
Decibel [dB]	The level of noise is measured objectively using a Sound Level Meter. The following are examples of the decibel readings of every day sounds; <table> <tr><td>0dB</td><td>the faintest sound we can hear</td></tr> <tr><td>30dB</td><td>a quiet library or in a quiet location in the country</td></tr> <tr><td>45dB</td><td>typical office space. Ambience in the city at night</td></tr> <tr><td>60dB</td><td>Martin Place at lunch time</td></tr> <tr><td>70dB</td><td>the sound of a car passing on the street</td></tr> <tr><td>80dB</td><td>loud music played at home</td></tr> <tr><td>90dB</td><td>the sound of a truck passing on the street</td></tr> <tr><td>100dB</td><td>the sound of a rock band</td></tr> <tr><td>115dB</td><td>limit of sound permitted in industry</td></tr> <tr><td>120dB</td><td>deafening</td></tr> </table>	0dB	the faintest sound we can hear	30dB	a quiet library or in a quiet location in the country	45dB	typical office space. Ambience in the city at night	60dB	Martin Place at lunch time	70dB	the sound of a car passing on the street	80dB	loud music played at home	90dB	the sound of a truck passing on the street	100dB	the sound of a rock band	115dB	limit of sound permitted in industry	120dB	deafening
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100dB	the sound of a rock band																				
115dB	limit of sound permitted in industry																				
120dB	deafening																				
dB(A)	<i>A-weighted decibels</i> The ear is not as effective in hearing low frequency sounds as it is hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter. The sound pressure level in dB(A) gives a close indication of the subjective loudness of the noise.																				
Frequency	Frequency is synonymous to <i>pitch</i> . Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.																				
Loudness	A rise of 10 dB in sound level corresponds approximately to a doubling of subjective loudness. That is, a sound of 85 dB is twice as loud as a sound of 75 dB which is twice as loud as a sound of 65 dB and so on																				
LMax	The maximum sound pressure level measured over a given period.																				
LMin	The minimum sound pressure level measured over a given period.																				
L1	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.																				
L10	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.																				
L90	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L ₉₀ noise level expressed in units of dB(A).																				
Leq	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.																				
dB (A)	'A' Weighted overall sound pressure level																				
Sound Pressure Level, LP dB	A measurement obtained directly using a microphone and sound level meter. Sound pressure level varies with distance from a source and with changes to the measuring environment. Sound pressure level equals 20 times the logarithm to the base 10 of the ratio of the rms sound pressure to the reference sound pressure of 20 micro Pascals.																				
Sound Power Level, Lw dB	Sound power level is a measure of the sound energy emitted by a source, does not change with distance, and cannot be directly measured. Sound power level of a machine may vary depending on the actual operating load and is calculated from sound pressure level measurements with appropriate corrections for distance and/or environmental conditions. Sound power levels is equal to 10 times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power of 1 picoWatt																				

NAFL	Noise Affected Level - As referred to in the EPA's <i>Interim Construction Noise Guideline</i> as the affected noise level for the trigger of construction noise mitigation requirements.
HNAL	High Noise Affected Level – As referred to in the EPA's <i>Interim Construction Noise Guideline</i> .
AV-TG	NSW EPA <i>Assessing Vibration Technical Guideline</i> .

APPENDIX B – BEN WHITE CV AND AAS MEMBERSHIP

Curriculum Vitae – Benjamin White



Employment Experience:

Director – Pule White Noise Acoustics
Present

November 2020 –

Director - White Noise Acoustics:

March 2019 – Present

Director/Engineer - Acoustic Logic Consultancy:
July 2018

March 2001 –

Experience:

Ben White the Director of White Noise has over 17 years of experience in acoustic.

Ben has significant experience in providing acoustic services and expert advice in the following areas:

- Residential acoustic reports including aircraft noise (AS2021) assessments, traffic noise, train noise and vibration assessments.
- Noise emission assessments for various projects including assessments with planning requirements using EPA, Department of Planning, Council DCP's and similar regulatory requirements.
- Planning approvals including Development Applications for multi dwelling residential developments, commercial developments, hotels and boarding houses, places of entertainment, carparks, mixed use developments, shopping centres and the like.
- Expert court witness including Land and Environment Court and other expert witness work.
- Project planning and specifications for types of projects including residential, commercial, retail, hotel accommodation, warehouses and industrial developments and mixed-use projects.
- Project delivery for all types of projects including, design advice and project delivery requirements at all stages of projects during design and construction.
- Certification works including on site testing for the provision of certification of all types of projects including items required to comply with Part F5 of the BCA as well as project specific acoustic requirements.
- Mechanical design and advice for the treatments of mechanical services with project requirements.
- External façade design and specification.
- Specialised acoustic design advice including areas of projects.
- Issues with existing building include site surveys and audits as well as advice regarding rectification if required.

AUSTRALIAN ACOUSTICAL SOCIETY



This is to certify that

BENJAMIN WHITE

was admitted to the grade of

MEMBER

of the Australian Acoustical Society

on 27th October 2020

and is entitled to use the letters

M.A.A.S.

issued on 26th November 2020

S. Moore

President

[Signature]

General Secretary



This certificate remains the property of the Australian Acoustical Society



*environmental management
pty ltd*

CONSTRUCTION WASTE MANAGEMENT PLAN

**GLENWOOD HIGH SHOOOL UPGRADE
SSD-23512960**



Revision Number: VERSION 4

Report Date: 23/01/2023

Presented by: **JO DRUMMOND**
ECCell Environmental Management
35 WAVERLEY CRESCENT
BONDI JUNCTION NSW 2022
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Submitted to: **Sam Lyons**
Richard Crookes

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APPENDICES

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APPENDIX B – DSI Report Classification

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DISCLAIMER

This report is based on information provided by Jacobs and Richard Crookes.

To that extent, this report relies on the accuracy of the information provided to the consultant. This report is not a substitute for legal advice on the relevant environmental related legislation, which applies to businesses, contractors or other bodies. Accordingly, EcCell Environmental will not be liable for any loss or damage that may arise out of this project.

DOCUMENT CONTROL

ISSUE NUMBER	DATE	AUTHOR	REVIEW	APPROVED BY
DRAFT	10/08/2021	Patrick Nolan	Jo Drummond	Jo Drummond
Version 1	2/11/2021	Partick Nolan	Jo Drummond	Jo Drummond
Version 2	8/06/2022	Partick Nolan	Jo Drummond	Jo Drummond
Version 3	26/08/2022	Partick Nolan	Jo Drummond	Jo Drummond
Version 4	23/01/2023	Partick Nolan	Jo Drummond	Jo Drummond

1 INTRODUCTION

This Construction Waste Management Plan (CWMP) accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of a State Significant Development Application (SSD - 23512960).

The development is for upgrading works comprising alterations and additions to Glenwood High School at 85 Forman Avenue, Glenwood. The site is legally described as Lot 5227 DP 868693.

This report addresses the relevant Secretary's Environmental Assessment Requirements (SEARs), specifically: Section 18 Waste

Table 1 - SEARs Requirement & CWMP Page Reference

SEARs Item	Report Reference
Identify, quantify and classify the likely waste streams to be generated during construction.	Page 8-10 PROJECT PHASE
Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.	Page 4 ROLES AND RESPONSIBILITIES
Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.	Section 6 Waste Management Compliance
Provide a hazardous materials survey of existing aboveground buildings that are proposed to be removed or altered.	Section 7

Table 2 - SSDA Condition C18,C29,C30,C31,C32,C33

C 18, C29, C30, C31, C32, C33	Report Reference
<p>C 18 The Construction Waste Management Sub-Plan (CWMSP) must address, but not be limited to the procedures for the management of waste including the following</p> <ul style="list-style-type: none"> (a) The recording of quantities, classification (for materials to be removed) and validation (for materials to remain) of each type of waste generated during construction and proposed use for materials to remain: (b) Information regarding the recycling and disposal locations:and (c) Confirmation of the contamination status of the development areas of the site based on the validation results 	<p>Section 8 and 9</p> <p>Douglas Partners Glenwood High School November 2021 Project Number 94626.00 Reference Moderate Salinity Appendix B - DSI Report</p>
C29. All waste generated during construction must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties.	Appendix A
C30. All waste generated during construction must be assess, classified and managed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	Section 8 and 9
C31. The Applicant must ensure that concrete waste and rinse water are not disposed of on the site and are prevented from entering any natural or artificial watercourse	CEMP

C32. The Applicant must record the quantities of each waste type generated during construction and the proposed reuse, recycling and disposal locations for the duration of construction.	Section 8 and 9
C33. The Applicant must ensure that the removal of hazardous materials, particularly the method of containment and control of emission of fibres to the air, and disposal at an approved waste disposal facility is in accordance with the requirements of the relevant legislation, codes, standards and guidelines	Section 7.2 and 7.3

Table 3 – Council Conditions

COUNCIL CONDITIONS 8	Report Reference
8.1 The Construction Waste Management Plan needs to be prepared by a Qualified Waste Waste Contractor before commencement	EcCell Environmental
8.2 (a)The type and volume of all waste materials and the appropriate destination for each type of waste identified.	Section 8 and 9
8.2 (b)non-recyclable waste and containers are to be regularly, collected and disposed of at a licensed disposal site. Frequency of collection should be identified	Page 5
8.2 (c) No burning or burying of waste is permitted on the site	Page 5
8.2 (d) Any bulk garbage bins delivered by authorized waste contractors are to be placed and kept within the property boundary.	Page 5
8.3 All waste (including hazardous materials) must be stored appropriately on site by the head contractor and disposed of by a licensed waste contractor at a licensed facility which can receive such waste	Page 5

2 THE PROPOSAL

The proposed development seeks to upgrade Glenwood High School. The upgrade consists of the following alterations and additions:

- Construction of a new three-storey building at the north-eastern portion of the site facing Glenwood Park Drive which will accommodate new learning spaces;
- Construction of one storey performance pavilion;
- Refurbishment of existing Building Block A (ground floor only) to provide one new support unit within the space of an existing general learning space;
- Refurbishment of Building Block D (ground floor only) to provide an additional office space and storeroom;
- Refurbishment of Building Block E to re-purpose it on the ground floor for computer learning spaces, staff and administration spaces as well as upgrades to the library on the first floor;
- Refurbishment of Building Block J to re-purpose it from visual arts and performing arts to learning spaces and workshops for food tech and woods/metal unit;
- Demolition of existing botany room and construction of a new single storey pavilion comprising of interview rooms and end-of trip facilities; and

3 PROJECT LOCATION

The site is roughly rectangular in shape, with a total area of 60,790m² and street frontages to Forman Avenue to the south and Glenwood Park Drive to the east. Glenwood Reserve adjoins the northern and western boundaries of the school. The site is located at 85 Forman Avenue, Glenwood, NSW, 2768 as shown in Figure 1.



Figure 1 REF Transport and Accessibility Impact Assessment

4 OBJECTIVES OF THE CWMP

The Objectives of the CWMP Include:

- a) Identify, quantity and classify waste streams to be generated during construction.
- b) Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.
- c) To ensure storage and collection of waste is designed and managed having appropriate regard to space, location, amenity and ongoing management of waste management facilities.
- d) Describe measures to be implemented to manage, reuse, and recycle and safely dispose of the waste.
- e) To maximise reuse and recycling of construction materials and materials from development.
- f) To encourage building design techniques in general which minimise waste generation.
- g) To minimise the amount of waste being deposited to landfill with targets to reuse or recycle at least 90% of construction and demolition waste as per the EFSG DG02 2.7.1 Construction and demolition waste requirements.

5 NSW LEGISLATIVE REQUIREMENTS AND GUIDELINES

Relevant key legislation and guidelines applicable to the project include:

- *Protection of the Environment Operations Act 1997*
- *Protection of the Environment (General) Operations Act 1998*
- *Waste Avoidance and Resource Recovery Act 2014*
- *Protection of the Environment Operations (Waste) Regulation 2014*
- *Waste Classification Guidelines (EPA, 2014)*
- *NSW Department of Planning and Environment, Secretary's Environmental Assessment Requirements (SEARs)*
- *Blacktown Development Control Plan 2015 (DCP, 2015) - Part G Site Waste Management and Minimisation.*
- *DECCW's Waste Classification Guidelines (2008)*

6 WASTE MANAGEMENT COMPLIANCE

The current legislation determines that the generator of waste is the owner of the waste until the waste crosses a calibrated weighbridge into a licensed facility. Waste contractors to construction contractors are the primary transporters of waste off-site, accordingly, waste contractors will be required to provide verifiable monthly reports on waste reused, reprocessed or recycled (diverted from landfill) or waste sent to landfill. These reports have a direct bearing on the generator's compliance with the relevant regulations.

The CWMP will be implemented on-site throughout including; singularly or collectively the demolition, excavation and construction phases.

A Waste Data File must be maintained on-site and all entries are to include:

- The classification of the waste
- The time and date of material removed
- A description of and the volume of waste collected
- The location and name of the waste facility that the waste is transferred to
- The vehicle registration and the name of the waste contractor's company

The Waste Data File will be made available for inspection to any authorized officer at any time during the life of the site works. At the conclusion of site works, the designated person will retain all waste documentation and make this validating documentation available for inspection.

Arrangement's will be made with the Waste Contractor to increase bin supply if there is an unexpected increase in waste generation.

CONSTRUCTION WASTE MANAGEMENT EQUIPMENT, BIN SIZES AND COLLECTION FREQUENCY

All waste will be removed by a licensed waste contractor using bins on site. The construction waste will be removed when bins are full and within the construction site operating hours to reduce disturbance of the neighbours.

7 WASTE MANAGEMENT STRATEGIES

The waste management strategy for the project will operate over the design, procurement, and construction including; the fit-out of the project and is detailed below in Table 1 .

Table 2 - Breakdown of Tasks and Responsibilities

Management Strategies	Responsibilities
Design	
<ul style="list-style-type: none"> • Use of modular components in design • Use of prefabricated components in design • Design for materials to standard sizes • Design for operational waste minimisation 	<ul style="list-style-type: none"> • Architect & Engineer • Architect, Builder, Subcontractors. • Architect, Subcontractors • Architect & Builder
Procurement	
<ul style="list-style-type: none"> • Select recycled and reprocesses materials • Components that can be reused after deconstruction 	<ul style="list-style-type: none"> • Architect, Engineer, Builder & Sub Contractors • Architect, Engineer & Builder
Pre-construction	
<ul style="list-style-type: none"> • Waste management plan to be reviewed & approved prior to construction. • Contract a Waste Contractor 	<ul style="list-style-type: none"> • Builder • Waste Contractor
Construction on-site	
<ul style="list-style-type: none"> • Use the avoid, reuse, reduce, recycle principles • Minimisation of recurring packaging materials • Returning packaging to the supplier • Separation of recycling of materials off site • Audit & monitor the correct usage of bins • Audit and monitor the Waste Contractor 	<ul style="list-style-type: none"> • Builder & Waste Contractor • Sub-contractors • Builder & Sub-contractor • Waste Contractor • Builder & Waste Contractor • Builder

ON SITE WASTE MANAGEMENT and STORAGE REQUIREMENTS

There will be a designated waste storage area for the disposal and storage of construction waste prior to collection. This area will be located conveniently for the construction work team to use the bins as well as for waste contractors to collect. An indicative location has been provided in Appendix A.

Other requirements include:

- Construction waste storage is contained wholly within the site.
- The routes for movement of waste between work site and waste storage area are to be kept obstruction-free.
- The routes for movement of bins and waste between storage and collection points are marked in the site drawing and will be kept obstruction-free (if waste is moved between the waste storage area(s)).
- The waste bin collection point provided will be accessible for waste collection vehicles. There are no obstructions to turning or reversing, pulling up vehicles and lifting bins.
- Access for waste collection vehicles will not be compromised by construction-related activities vehicles or other consequences of construction staging.
- All waste not being reused on site will be removed during, or at the completion of, the construction stage.

- No waste will be left on site unless it is part of valid reuse on site, which is integral to and in place in the design.
- In order to manage noise levels, collection of waste from the construction site will only occur during hours approved for construction work.
- All vehicles entering or leaving the site must have their loads covered.
- All vehicles, before leaving the site, to be cleaned of dirt, sand and other materials, to avoid tracking these materials onto public roads.
- At the completion of the works, the work site is left clear of waste and debris.
- Non-recyclable waste and containers are to be regularly, collected and disposed of at a licensed disposal site. Waste will be collected daily
- No burning or burying of waste is permitted on the site
- Any bulk garbage bins delivered by authorized waste contractors are to be placed and kept within the property boundary
- All waste (including hazardous materials) must be stored appropriately on site by the head contractor and disposed of by a licensed waste contractor at a licensed facility which can receive such waste

7.1 REUSE OF DEMOLITION, EXCAVATION AND CONSTRUCTION MATERIALS

Construction Materials and off-cuts can be reused on-site. An area within the materials lay-down area will be allocated for the storage of materials to be reused.

These items include

- Plastic buckets
- Timber crates
- Timber off cuts
- Paint brushers and rollers (Wrapped in plastic to maintain moisture)
- Plasterboard offcuts
- Cardboard boxes
- Clean fill will be reused on-site after verification by soil testing and Waste Classification.

7.2 MANAGEMENT OF HAZARDOUS WASTE

All excavation waste removed from site will be classified by a suitably qualified environmental consultant as per Waste Classification Guidelines Part 1: Classifying Waste NSW EPA 2014 including:

- Virgin excavated natural material;
- ENM in accordance with Excavated Natural Material Order 2014;
- Asbestos;
- Disposal dockets (for non VENM/ENM) from landfill will be provided and kept in a Waste Data File on-site;
- Material tracking/dockets will be provided for VENM/ENM;
- Disposal facility will have appropriate licence to receive the waste in accordance with the waste classification; and
- if required a Remedial Action Plan will be prepared

A Waste Data File will be maintained on-site and all entries will include hazardous waste stating the following:

- The classification of the hazardous waste;
- The license of the facilities that can accept the hazardous waste material;
- The time and date of material removed;
- A description of and the volume of waste collected;
- The location and name of the waste facility that the waste is transferred to;
- The vehicle registration and the name of the waste contractor's company; and
- Disposal docket.

The Waste Data File will be made available for inspection to any authorised officer at any time during the life of the site works. At the conclusion of site works, the designated person will retain all waste documentation and make this validating documentation available for inspection.

7.3 UNEXPECTED FINDS PROTOCOL

An unexpected find can be defined as:

- Any unanticipated archaeological discovery e.g. aboriginal relics, items of significance, etc.;
- Buried or surface asbestos containing materials (Bonded, Friable or other);
- Buried waste materials e.g. medical waste, contaminated waste, etc.;
- Septic or underground storage tanks;
- Animal burial pits; or
- discoloured and odorous soils and groundwater/seepage.

Should an unexpected find of potential contamination be encountered during the works, the CEMP procedure should be followed, with consideration of the following:

- Identified finding by worker;
- Cease work as soon as safe to do so and move clear of the finding;
- Do not tamper or attempt to remove the finding;
- Contact Construction Management immediately;
- Site Management to delineate an exclusion or quarantine zone around the area using fencing and or appropriate barriers and signage;
- Preliminary assessment of the find and need for immediate management controls;
- Further assessment and/or remediation works are required and how such works are to be undertaken in accordance with contaminated site regulations and guidelines;

- Any unexpected finds must be documented, and records of volumes and types of materials identified removed from the site must be kept on file;
- Receipt documentation from the licensed facility confirming volume received.

8 WASTE MANAGEMENT PLAN APPLICATION

Project

Glenwood High School Upgrade

Address

85 Forman Avenue, Glenwood, NSW, 2768.

Applicant

Dept of Education
School Infrastructure NSW
Level 8, 259 George Street,
Sydney, N.S.W, 2000

Details of Application

The development is a new build and upgrading works comprising alterations and additions to Glenwood High School at 85 Forman Avenue, Glenwood. The site is legally described as Lot 5227 DP 868693.

Description of Buildings and Other Structures Currently on the Site

The site is roughly rectangular in shape, with a total area of 60,790m² and street frontages to Forman Avenue to the south and Glenwood Drive to the east. Glenwood Reserve adjoins the northern and western boundaries of the school.

Brief Description of Proposal

The proposed development seeks to upgrade Glenwood High School. The upgrade consists of the following alterations and additions:

- Construction of a new three-storey building at the north-eastern portion of the site facing Glenwood Park Drive which will accommodate new learning spaces;
- Construction of one storey performance pavilion;
- Refurbishment of existing Building Block A (ground floor only) to provide one new support unit within the space of an existing general learning space;
- Refurbishment of Building Block D (ground floor only) to provide an additional office space and storeroom;
- Refurbishment of Building Block E to re-purpose it on the ground floor for computer learning spaces, staff and administration spaces as well as upgrades to the library on the first floor;
- Refurbishment of Building Block J to re-purpose it from visual arts and performing arts to learning spaces and workshops for food tech and woods/metal unit;
- Demolition of existing botany room and construction of a new single storey pavilion comprising of interview rooms and end-of trip facilities; and
- The proposed development will also involve ancillary works at the site associated with the proposed upgrades.



Prepared by:	
Name:	Jo Drummond
Signed:	
Contact Number:	0412 214 233
Date:	23/01/2023

9 PROJECT PHASE

9.1 DEMOLITION

MATERIAL TYPE ON SITE	ESTIMATED VOLUME (m³) or WEIGHT (t) (Most Favourable → Least)			ON-SITE TREATMENT	OFF-SITE TREATMENT	
	Reuse	Recycling	Disposal	Proposed reuse and/or recycling collection methods	Disposal / Transport Contractor	Waste Depot, Recycling Outlet or Landfill site
Brick & Concrete		80 m³		Comingled	Bingo	Boral Recycling 11815
Asphalt		15 m³		Comingled	Bingo	Boral Recycling 11815
Metal		45 m³		Comingled	Bingo	Sims Metal 6934
Plasterboard		30 m³		Comingled	Bingo	Cleanaway Resource Co 20937
Timber		35 m³		Comingled	Bingo	Fairfield Council 5713
Doors & Windows	10 units			Removed for reuse	Bingo	Cleanaway Resource Co 20937
General Waste			60 m 3		Bingo	Cleanaway Resource Co 20937
Total	265m3					
Narrative: Demolition of the Botany Room and internal demolition of exsistng buildings to accomodate the new fit out. All material will be comingled and taken off site for recycling.						

9.2 EXCAVATION

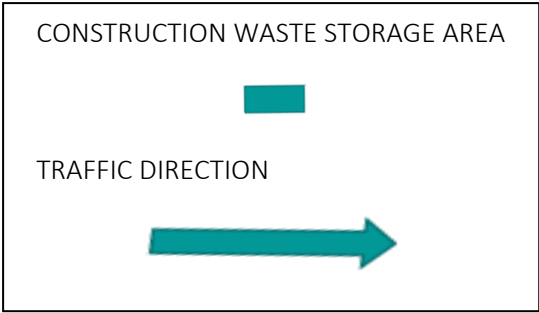
MATERIAL TYPE ON SITE	ESTIMATED VOLUME (m³) or WEIGHT (t) (Most Favourable → Least)			ON-SITE TREATMENT	OFF-SITE TREATMENT	
	Reuse	Recycling	Disposal	Proposed reuse and/or recycling collection methods	Disposal / Transport Contractor	Waste Depot, Recycling Outlet or Landfill site
Trees & Shrubs Roots		10 m³		Separated to a designated Bin	TBA	Recycled
Clean Fill	330 m³			Separated to a designated stockpile	TBA	Reused
Sub-Total	340 m³					
Total	340 m³					
Narrative: Aside from the new three-story building’s excavations and pilings the proposed excavations on-site are minor excavation for piers and footings. Sometrees and shrubs are to be lopped and recycled. Moderately saline soils present across the site. Douglas Partners Geo Technical Investigation Glenwood High School November 2021 Project Number 94626.00						

9.3 CONSTRUCTION

MATERIAL TYPE ON SITE	ESTIMATED WEIGHT (t) or VOLUME (m ³)			ON-SITE TREATMENT	OFF-SITE TREATMENT	
	Reuse	Recycling	Landfill Disposal	Proposed reuse and/or recycling collection methods	Disposal / Transport Contractor	Recycling Outlet or Landfill site
Concrete, Brick, Block Work, Render, Tiles		125 (m ³)		Co-mingled Bins	Bingo	Crushed for road base Boral Recycling 11815
Metals		90 (m ³)		Co-mingled Bins	Bingo	Scrap Metal Dealer for smelting EPL 6934
Timber Off-Cuts		110 (m ³)		Co-mingled Bins	Bingo	Recycled for woodchips and mulch Cleanaway Resource Co 12889
Cardboard		35 (m ³)		Co-mingled Bins	Bingo	Recycled into cardboard packaging Cleanaway Resource Co 12889
Plasterboard		120 (m ³)		Co-mingled Bins	Bingo	Recycled as soil conditioner
Containers, Plastics, Plastic Packaging		130 (m ³)		Co-mingled Bins	Bingo	Recycled into further plastic
Pallets And Reels	40 units			Co-mingled Bins	Bingo	Returned to the supplier
Liquid Waste			35 (m ³)	Separated Container/Bin	Bingo	Cleanaway Resource Co 12889
General Waste			80 (m ³)	Co-mingled Bins	Bingo	Cleanaway Resource Co 12889
Sub Total		610 (m³)	115 (m³)			
TOTAL	(m³)			NB: An additional 40 pallets & reels (single units returned to suppliers for reuse)		



Figure 2.1: Site extents
Source: SIX Maps



**Schools Infrastructure NSW
c/- Jacobs E & C Australia Pty Ltd
Level 5, 177 Pacific Highway
North Sydney NSW 2060**

Project 94626.01
13 September 2021
R.004.Rev1
GRB;

Attention: Mr Marcus Kraefft

Email: Marcus.Kraefft@jacobs.com

**Glenwood High School Upgrade
85 Forman Avenue, Glenwood
Environmental Comments Supporting REF Application**

1. Introduction

Douglas Partner's Pty Ltd's (DP) Report on Detailed Site (Contamination) Investigation (DSI) dated 17 September 2021 (Project 94626.00) for Glenwood High School accompanies the Review of Environmental Factors (REF) for School Infrastructure NSW (SINSW), which is the infrastructure body for the Department of Education (DoE) to assess the potential environmental impacts resulting from proposed early works (the 'proposed activity') at Glenwood High School.

2. Proposed Activity

Under the REF the existing portable classrooms on site are proposed to be removed and associated utility services infrastructure demolished. The sewer reticulation system is proposed to be diverted. The extent of the proposed activity is illustrated in the PTW Architects titled "Demolition and Services plan" dated 3 September 2021 (Drawing No AR-1001, Rev 4) and the AECOM drawing titled "Hydraulic Services – Site Plan – Early Works – Hydraulic Reticulation" dated 9 September 2021 (Sheet No. 60659173-DRG-HY-00-0100). Note the portable classrooms to be removed are proposed to be installed elsewhere at Glenwood High School under the Exempt Development pathway and not under this REF.

3. Comments

The conclusion of DP's DSI report was as follows:

"The scope of the current Detailed Site Investigation included a desktop study and a site walkover which informed an updated CSM, data gaps assessment and a summary SAQP together with sampling and laboratory testing. The current investigation identified three potential areas of environmental concern (PAEC) that required investigation to characterise whether or not they pose an actual contamination risk to the proposed development. It is noted that these potential sources of contamination observed at the

site are typical for the region and are considered by DP to unlikely pose a contamination constraint to the proposed development at this time.

Based on the findings of this investigation, DP concludes that the potential for contamination constraints at the site is considered to be relatively low. Given the absence of any indicators of significant soil contamination at the site at this time, groundwater investigations are not considered to be required at this time.

As with any site, there is always the potential that concealed structures and / or materials may be present at the site and this should be considered following removal of the demountable buildings and during bulk earthworks for the proposed development. In particular, it is recommended that an occupational hygienist inspect and test the ground following removal of the demountable buildings on-site. Furthermore, an Unexpected Finds Protocol will need to be established for use following removal of the demountable buildings and during earthworks during redevelopment, in order to ensure that due process is carried out in the event of a possible contaminated find."

The findings and recommendations of DP's DSI report are still considered relevant for the proposed activity. Further investigation is not required for the proposed activity at the present time. Reference to DP's DSI report should be made for further comment.

Please contact the undersigned if you have any questions on this matter.

Yours faithfully

Douglas Partners Pty Ltd



Gavin Boyd

Senior Associate

Attachments: Douglas Partners Report on Detailed Site (Contamination) Investigation dated 17 September 2020 (Project 94626.00)

School Infrastructure NSW

Community Communication Strategy

Glenwood High School Upgrade

SSD-23512960

Version	Date of Review
1.0	13/09/22
2.0	14/12/22

Contents

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Document purpose

School Infrastructure NSW (SINSW) consults and engages with communities and stakeholders throughout the development of a school project. This engagement helps to inform the design of the school project and provides an opportunity to share and address potential constraints and impacts during construction.

A Consultation Report outlining the consultation and engagement during this planning phase of the project is submitted as part of the State Significant Development (SSD) application. This Community Communications Strategy (CCS) provides an overview of how SINSW will continue to communicate and consult with the community during design and construction of the project.

The Consultation Report is available on the planning portal <https://pp.planningportal.nsw.gov.au/major-projects/projects/glenwood-high-school-upgrade>

The Glenwood High School Upgrade is classified as a state significant development, and has been assessed by the Department of Planning and Environment (DPE). Consent was provided on 25 August 2022.

For more information visit the [DPE web page](#) on the SSD.

This CCS has been developed to comply with condition B9 of the SSD consent:

Community Communication Strategy

B9. No later than 48 hours before the commencement of construction, a Community Communication Strategy must be submitted to the Planning Secretary for information. The Community Communication Strategy must provide mechanisms to facilitate communication between the Applicant, the relevant Council and the community (including adjoining affected landowners and businesses, and others directly impacted by the development), during the design and construction of the development and for a minimum of 12 months following the completion of construction.

The Community Communication Strategy must:

- a) *identify people to be consulted during the design and construction phases;*
- b) *set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the development;*
- c) *provide for the formation of community-based forums, if required, that focus on key environmental management issues for the development;*
- d) *set out procedures and mechanisms:*
 - i. *through which the community can discuss or provide feedback to the Applicant;*
 - ii. *through which the Applicant will respond to enquiries or feedback from the community;*
 - iii. *to resolve any issues and mediate any disputes that may arise in relation to construction and operation of the development, including disputes regarding rectification or compensation.*

This CCS outlines SINSW's commitment to:

- Consider and manage stakeholder and community expectations as integral to the successful delivery of the project.
- Inform affected stakeholders, such as the local community or road users about construction activities.
- Enable the open and proactive management of issues and communications.

This CCS will be implemented through the construction phase of the project, and for 12 months following construction completion.

Plan review

The CCS will be revised as required to address any changes in stakeholders or the project management or complaints handling process. This will be done in close consultation with the SINSW Senior Project Director, appointed Project Management company and/or contractor and SINSW Community Engagement Manager.

Approval

The CCS is reviewed and approved by the SINSW Senior Project Director, in close consultation with SchoolPerformance, with final endorsement from the SINSW Community Engagement Senior Manager.

Table 1: List of SSD requirements and where they are addressed in this CCS

State Significant Developments B10	The Community Communications Strategy addresses this in section
a) <i>identify people to be consulted during the design and construction phases;</i>	▪ Section 3: Stakeholders
b) <i>include a requirement to give notice to adjacent properties and Council at least 5 days prior to works commencing for approved works under this consent which are located within Council controlled lands;</i>	▪ Section 4: Engagement Approach ▪ Section 5: Engagement Delivery Timeline
c) <i>set out procedures and mechanisms for the regular distribution of accessible information about or relevant to the development;</i>	▪ Section 4: Engagement Approach
d) <i>provide for the formation of community-based forums, if required, that focus on key environmental management issues for the development;</i>	▪ Section 4: Engagement Approach
e) <i>set out procedures and mechanisms:</i> <i>i. through which the community can discuss or provide feedback to the Applicant;</i> <i>ii. through which the Applicant will respond to enquiries or feedback from the community;</i> <i>iii. to resolve any issues and mediate any disputes that may arise in relation to construction and operation of the development, including disputes regarding rectification or compensation.</i>	▪ Section 4: Engagement Approach ▪ Section 6: Protocols

1. Context

An upgrade is underway at Glenwood High School. Under the SSD pathway, the contractor will:

The upgraded Glenwood High School will deliver:

- a) build a new 3-storey building with 47 learning spaces,
- b) build a new single storey performance arts centre,
- c) refurbish the ground floor of Block A, and
- d) refurbish blocks E and J.

For more information on the project, visit the project [web page](#) on the School Infrastructure NSW website.

2. Community engagement objectives

SINSW's goal is that our school infrastructure meets the needs of a growing population and enables flexible learning and teaching. This CCS has been developed to achieve the following community engagement objectives:

- a) Promote the benefits of the project
- b) Build key school community stakeholder relationships and maintain goodwill with impacted communities
- c) Manage community expectations and build trust by delivering on our commitments
- d) Provide timely information to impacted stakeholders, schools and broader communities
- e) Address and correct misinformation in the public domain
- f) Reduce the risk of project delays caused by negative third party intervention
- g) Leave a positive legacy in each community.

3. Stakeholders

The stakeholder list below summarises who will be informed and consulted during the design and construction phase via ongoing face to face meetings, communications collateral and digital engagement methods.

Table 2: Stakeholders

Stakeholders	Interest and involvement
School community <ul style="list-style-type: none">a) Director of Educational Leadership – Tania Rileyb) Principal – Sonja Andersonc) Teachersd) Staffe) Parents and carersf) Students	<ul style="list-style-type: none">a) Safe pedestrian and traffic access to the temporary school during constructionb) Construction impacts and how these will be minimisedc) Quality of infrastructure and resources upon project completiond) How to access the new school once completed
Local community <ul style="list-style-type: none">a) Forman Avenueb) Kidman Streetc) Chelsea Terrace	<ul style="list-style-type: none">a) Noise and truck movements during constructionb) Increased traffic and congestion on nearby streetsc) Local traffic and pedestrian safetyd) Changed traffic conditions during pick-up and drop-off

Stakeholders	Interest and involvement
d) Wheedon Street e) Glenwood Park Drive f) Shaun Street	e) Shared use of school facilities and amenities
Adjoining affected landowners and businesses a) Goodstart Early Learning b) u-value Finance Services c) Jo's Barking Bubbles d) Computer Guy Support e) Momolicious Australia f) Frosted Treats	a) Noise and truck movements during construction b) Increased traffic and congestion on nearby streets c) Local traffic and pedestrian safety d) Changed traffic conditions during pick-up and drop-off e) Shared use of school facilities and amenities f) Environmental impacts during construction
Local Members of Parliament: a) Federal Member of Greenway, Michelle Rowland (Labor) b) State Member for Riverstone, Kevin Connolly (Liberal)	a) Meeting the economic, social and environmental objectives of state and federal governments b) Delivering increased public education capacity on time c) Delivering infrastructure which meets expectations d) Addressing local issues such as traffic, congestion and public transport solutions
Government agencies and peak bodies: a) Transport for NSW b) Fire and Rescue NSW c) NSW Department of Education d) NSW Department of Planning and Environment e) NSW Environmental Protection Authority f) NSW Rural Fire Service g) Sydney Water or Other h) NSW Heritage Council i) NSW Office of Environment and Heritage j) NSW Department of Premier and Cabinet	a) Traffic and congestion on the local road system b) Adequate public transport options and access c) Ensuring new infrastructure meets standard requirements for safety and fire evacuation d) Ensuring the development is compliant e) Ensuring the development does not impact heritage items f) Easing overcrowding in local schools
Local Council – Blacktown City Council a) Councillors <ul style="list-style-type: none"> • Moninder Singh • Hess Diaz • Chris Quilkey • Michael Stuble • Kushpinder Kaur • Allan Green • Susai Benjamin 	a) Schedule for construction and opening of school b) Plans for enrolled students during the operation of the temporary school c) Impacts to the local community including noise, congestion and traffic d) Shared use of community spaces e) Providing amenities to meet increase population density f) Copies of information distributed to local residents g) Processes and protocols in place to manage interactions with local residents

Stakeholders	Interest and involvement
<ul style="list-style-type: none"> • Kathie Collins • Carol Israel • Bob Fitzgerald • Peter Camilleri • Brad Bunting • Livingston Chettipally <p>b) Mayor Tony Bleasdale</p> <p>c) Deput Mayor Julie Griffiths</p> <p>d) Kerry Robinson, CEO</p>	
<p>Nearby public schools</p> <p>a) Quakers Hill East Public School</p> <p>b) Quakers Hill High School</p> <p>c) Kings Langley Public School</p> <p>d) Caddies Creek Public School</p> <p>e) Parklea Public School</p> <p>f) Bella Vista Public School</p> <p>g) Kellyville Public School</p> <p>h) Kellyville High School</p>	<p>a) Impact on school resources</p> <p>b) Impact on current students</p> <p>c) Implications for teaching staff</p> <p>d) Possible impacts on enrolments</p> <p>e) Opportunities to view the new facilities</p>
<p>Community groups</p> <p>a) Glenwood Community Group (NSW), private Facebook group</p> <p>b) Glenwood Community Group (NSW), Facebook group</p> <p>c) Glenwood Community Association, NSW</p>	
<p>Project Reference Group (names not disclosed)</p> <p>a) Project members</p> <p>b) Principal of high school and public school</p> <p>c) Director Educational Leadership</p> <p>Parent/Community representative</p>	<p>a) Schedule for construction, progress and opening of school</p> <p>b) Inform plans for the operation of the temporary school</p> <p>c) Impacts to the local community including noise, congestion and traffic</p>
<p>Potential joint use partners</p> <p>a) Axiom 1 – PPP</p> <p>b) Spotless</p>	<p>a) Facilities management</p> <p>b) Maintenance management</p> <p>c) Safety management</p> <p>d) Traffic and access to the school site</p> <p>e) Impact during construction</p>

4. Engagement approach

The key consideration in delivering successful outcomes for this project is to make it as easy as possible for anyone with an interest to find out what is going on. In practice, the communications approach across all levels of engagement will involve:

- a) Using uncomplicated language
- b) Taking an energetic approach to engagement
- c) Encouraging and educating whenever necessary
- d) Engaging broadly including with individuals and groups that fall into harder to reach categories
- e) Providing a range of opportunities and methods for engagement
- f) Being transparent
- g) Explaining the objectives and outcomes of planning and engagement processes.

In addition to engagement with Government departments and agencies and local council, community engagement will continue for the project during construction in two streams:

- a) School-centric involvement from school communities (including students, parents/caregivers, teachers, admin staff) unencumbered by broader community issues, and
- b) Broad community involvement unencumbered by school community wants and needs. Broad community stakeholders include local residents, neighbours and local action groups.

4.1. General community input

Members of the general public impacted by the construction phase are able to enquire, provide feedback and complain about environmental impacts via the following channels:

- a) School Infrastructure NSW 1300 community information line 1300 482 651 published on all communications material, including project site signage
- b) School Infrastructure NSW email address schoolinfrastructure@det.nsw.edu.au published on all communications material, including project site signage
- c) Project webpage 'contact us' form
- d) During information booths and information sessions held at the school or local community meeting place, and advertised on our website and via letterbox drops.

Refer to Section 6.5 of this document for detail on our enquiries and complaints process.

A number of tools and techniques will be used to keep stakeholders and the local community involved as summarised in Table 3 below.

For reference, project high level milestones during the delivery phase include:

- a) Site establishment/early works (may be complete prior to this CCS being implemented as part of SSD conditions of approval)
- b) Commencement of main works construction
- c) School Term before project is completed
- d) Project completion
- e) First day of school following project completion / official opening

Table 3: School Infrastructure NSW Communications Tools

Communications Tool	Description of Activity	Frequency
1300 community information line	The free call 1300 482 651 number is published on all communication materials and is manned by SINSW.	Throughout the life of the project and accessible for 12

Communications Tool	Description of Activity	Frequency
	<p>All enquiries that are received are referred to the appointed Community Engagement Manager and/or Senior Project Director as required and logged in our CRM.</p> <p>Once resolved, a summary of the conversation is updated in the CRM.</p>	months post completion
Advertising (print)	Advertising in local newspapers may be undertaken prior to significant construction activities, major disruptions and opportunities to meet the project team or find out more at a face to face event.	At project milestones
Call centre scripts	High level, project overview information may be provided to external organisations who may receive telephone calls enquiring about the project, most namely stakeholder councils.	Throughout the project when specific events occur or issues are raised by stakeholders
Community contact cards	<p>These are business card size with all the SINSW contact information.</p> <p>The project team/ contractors are instructed to hand out contact cards to stakeholders and community members enquiring about the project. Cards are offered to school administration offices as appropriate.</p> <p>Directs all enquiries, comments and complaints through to our 1300 number and School Infrastructure NSW email address.</p>	Throughout the life of the project and available 12 months post completion
CRM database	<p>All projects are created in SINSW's Customer Relationship Management system at project inception.</p> <p>Interactions, decisions and feedback from stakeholders are captured, and monthly reports generated.</p> <p>Any enquiries and complaints are to be raised in the CRM and immediately notified to the Senior Project Director, Project Director and Community Engagement Manager.</p>	Throughout the life of the project and updated for 12 months post completion
Display boards	A0/A1 size full colour information boards to use at info sessions or to be permanently displayed in appropriate places (school admin office for example).	As required
Door knocks	<p>Provide timely notification to nearby residents of upcoming construction works, major impacts such as changes to pedestrian movements, temporary bus stops, expected impacts and proposed mitigation.</p> <p>Provide written information of construction activity and contact details.</p>	As required prior to periods of significant construction impacts
FAQs	Set of internally approved answers provided in response to frequently asked questions. Used as part of relevant stakeholder and community communication tools. These are updated as required, and included on the website if appropriate.	Throughout the life of the project
Information booths	Information booths are held locally and staffed by a project team member to answer any questions, concerns or complaints on the project.	At project milestones and as required

Communications Tool	Description of Activity	Frequency
	<p>Information booths may be held both at the school/ neighbouring school, as well as the broader community:</p> <ul style="list-style-type: none"> a) School information booths are held at school locations at times that suit parents and caregivers, with frequency to be aligned with project milestones and as required. b) Community information booths are usually held at local shopping centres, community centres and places that are easily accessed by the community. They are held at convenient times, such as out of work hours on weekdays and Saturday's. <p>Collateral to be provided include community contact cards, latest project notification or update, with internal FAQs prepared.</p> <p>All liaison to be summarised and loaded in the CRM.</p>	
Community information sessions	<p>Information sessions are a bigger event than an info booth, held at a key milestone or contentious period. We have more information on the project available on display boards/ screens and an information pack handout – including project scope, planning approvals, any impacts on the school community or residents, project timeline, FAQs.</p> <p>Members from the project and communications team will be available to answer questions about the project.</p> <p>These events occur after school hours on a week day.</p> <p>All liaison summarised and loaded on the CRM.</p>	As required
Information pack	<p>A 4 page A4 colour, fold out flyer that can include information about the project scope, progress, FAQs, timeline and next steps.</p> <p>To be distributed at info sessions or at other bigger events/ milestones in hard copy and also made available electronically.</p>	As required
Media releases/events	<p>Media releases are distributed upon media milestones. They promote major project milestones and activities and generate broader community awareness.</p>	<p>Media milestones during construction period may include:</p> <ul style="list-style-type: none"> a) Planning approval granted b) Construction contract tendered c) Construction contract awarded d) Sod turning opportunity e) Handover / Official opening
Notifications and updates	<p>A4 printed in colour that can include FAQs if required</p> <p>Notifications are distributed under varying templates with different headings to suit different purposes:</p> <ul style="list-style-type: none"> a) Works notification are used to communicate specific 	<p>As required according to the construction program.</p> <p>Distributed (refer construction works</p>

Communications Tool	Description of Activity	Frequency
	<p>information/ impacts about works, impacts and mitigations.</p> <p>b) Project update is used when communicating milestones and higher level information to the wider community i.e. project announcement, concept design/DA lodgement, construction award, completion. Includes the project summary, information booths/ sessions if scheduled, progress summary and contact info.</p>	notification distribution methodology in Section 4.2) via letterbox drop to local residents and via the school community prior to construction activities or other milestones throughout the life of the project. Specific timings indicated in table 5 – Section 8.
Photography and videography	<p>Images may be used in notifications, on the website, at information sessions and in presentations.</p> <p>Once the project is complete, SINSW will organise photography of external and internal spaces to be used for a range of communications purposes.</p>	<p>Project completion (actual photography and video of completed project)</p> <p>Prior to project completion - artist impressions, flythrough, site plans and construction progress images may be used.</p>
Presentations	Details project information for presentations to stakeholder and community groups.	As required
Priority correspondence	Ministerial (and other) correspondence that is subject to strict response timeframes. Includes correspondence to the Premier, Minister, SINSW and other key stakeholders. SINSW is responsible for drafting responses as requested within the required timeframes.	As required
Project Reference Group	SINSW facilitated Project Reference Group sessions providing information on the design, construction activities, project timeframes, key issues and communication and engagement strategies.	Meets every month or as required. PRG during the delivery phase is generally reduced or retired.
Project signage	<p>A0 sized, durable aluminium signage has been installed at Glenwood High School.</p> <p>Provides high level information including project scope, project image and SINSW contact information.</p> <p>Fixed to external fencing/ entrances etc. that are visible and is updated if any damage occurs.</p>	Throughout the life of the project and installed for 12 months post completion
Site visits	Demonstrate project works and progress and facilitate a maintained level of interest in the project. Includes media visits to promote the reporting of construction progress.	As required
School Infrastructure NSW email address	Provide stakeholders and the community an email address linking direct to the Community Engagement team. Email address	Throughout the life of the project

Communications Tool	Description of Activity	Frequency
	(schoolinfrastructure@det.nsw.edu.au) is published on all communications materials.	
School Infrastructure NSW website	A dedicated project page for Glenwood High School is located on the SINSW website - https://www.schoolinfrastructure.nsw.gov.au/projects/g/glenwood-high-school-upgrade.html	Updated at least monthly and is live for at least 12 months post completion of the project
Welcome pack/ thank you pack	At project completion the following flyers are utilised: <ul style="list-style-type: none"> ▪ Welcome pack – project completion for school community provided on the first day/week they are returning to school when new facilities are opening, or attending a new school. Includes project overview, map outlining access to the school and key locations, FAQs, contact information. ▪ Thank you pack – tailored to the local residents to thank them for their patience and support of the project. 	Project completion only

4.2. Construction works notification distribution methodology

Construction works notifications will be distributed to targeted properties in the vicinity of the project. These properties have been identified as part of the technical studies and plans submitted as part of the planning and assessment approval pathway and post approval requirements. Specifically, the notification distribution map at **Figure x** below has been prepared through an analysis of the potential project impacts and requirements identified in:

- the acoustic assessment supporting the SSD application
- the transport assessment supporting the SSD application
- the Construction Worker Transportation Strategy
- the Construction Environmental Management Plan, including the:
 - Construction Noise and Vibration Management Sub Plan
 - Construction Traffic and Pedestrian Management Sub Plan.

This methodology has been used to identify the anticipated construction impacts identified for this project. It does not include an arbitrary distribution area due to the robust impact analysis that has been carried out during planning and assessment phase of the project.

The distribution area may be altered:

- to address specific construction activities where the impact/s affect fewer or greater properties, depending on the nature of the work
- where ongoing monitoring shows more widespread impacts to that predicted in the environmental impact assessment
- if complaints are received outside of the distribution area
- if there is an approved project modification in the future that results in more widespread impacts
- at the discretion of School Infrastructure NSW.

Additional project updates and notifications will also be distributed when communicating milestones and higher-level information to the wider community such as construction contract award and project completion. Such updates and notifications may not detail construction impacts and may be distributed to a greater number of addresses to widely publicise the project's achievements.

Notice to adjacent properties and Council will be provided at least 5 days prior to works commencing for approved works which are located within Council controlled lands. It is noted that the project has no approved works located within Council controlled lands.

Figure 1: Map of community notification areas



The below details the nearest sensitive receivers that may be impacted by construction including noise. These stakeholders will receive notifications for unplanned out of hours works before undertaking the activities or as soon as is practical afterwards. This will also consider residents that may be impacted by heavy vehicle movements and other non site specific impacts (e.g. truck movements).

Receiver 1: Residences to the north of the site at 278-270 Glenwood Park Drive and 17-11 Wheedon Street.

Receiver 2: Residences to the north east of the site at 1-7 Shaun Street.

Receiver 3: Residences to the east of the site located at 9-15 Kidman Street.

Receiver 4: Residences to the east of the site located at 17-27 Kidman Street.

Receiver 5: Residences to the south of the site located at 66-100 Forman Avenue.

Figure 2: Map of sensitive receivers



5. Engagement Delivery Timeline

The following engagement delivery timeline maps tailored communications tools and activities by key milestone.

Table 4: Engagement timeline

Project Phase / milestone	Target Audiences	Proposed communication tools / activities / purpose as per Table 3	Timing / implementation
Prior to SSD approval – consultation during planning and design development		Consultation Report submitted as part of SSD	November 2021
Main construction works, including but not limited to: a) Remediation b) Works commenced c) Key impact periods – noise, dust, traffic, vibration	School community Local community Adjoining/affected landowners and businesses State MP	Sod turn Webpage update Media release (if required) Project updates Works notifications Doorknock/s, if required	Mid-2022 (at key construction events as required, as per our notification process in Table 5) Term prior to project
Term prior to project completion	School community Local community Adjoining/affected landowners and businesses State MP	Webpage update Project update/information pack Information booth	Late 2022
Handover and welcome to new school	School community Local community State MP	D1T1 welcome pack for school community D1T1 welcome team Completion pack for school community once works are completely finalised Thank you pack for the local community Webpage update Media release (if required)	Early 2023
Opening	School community Local community State MP	Official opening ceremony	Early 2023
Post-opening, for 12 months following operation	All	Website remains live	Early 2024 (at least 12 months post construction completion)

Project Phase / milestone	Target Audiences	Proposed communication tools / activities / purpose as per Table 3	Timing / implementation
		<p>Project signage remains installed</p> <p>1300 phone and email still active, and CRM still maintained for complaints and enquiries.</p>	

6. Protocols

6.1. Media engagement

SINSW manages all media relations activities, and is responsible for:

- a) Responding to all media enquiries and instigating all proactive media contact.
- b) Media interviews and delegation to SINSW media spokespeople who are authorised to speak to the media on behalf of the project
- c) Informing the Minister's Office and SINSW project team members and communications representatives of all media relations activities in advance and providing the opportunity to participate in events where possible.

6.2. Site visits

SINSW, in partnership with the Department of Education Schools Performance, organises and hosts guided project site tours and media briefings as required by the Minister's Office. The Project Team will ensure the required visitor site inductions are undertaken and that all required Personal Protective Equipment (PPE) is worn.

For media site visits and events, SINSW creates, or contributes to, the production of an event pack. This will include an event brief, media release, speaking notes and Q&As.

6.3. Social, online and digital media

SINSW initiates and maintains all social and online media channels. These channels may include the Department's Facebook and Twitter, and SINSW's LinkedIn and website.

6.4. Stakeholder and community notification process

Notification letters or project updates will be distributed to the community and stakeholders in advance of any activity with the potential to cause impacts.

Depending on the work activity and stakeholder, notifications are primarily distributed via letterbox drop, via the school, electronically via email, as well as uploaded to the SINSW project webpage. If appropriate, notification may also be delivered in person via door knocks, or via phone call or text message, or one-on-one briefings.

Notifications will be written in plain English and will:

- outline the reason that the work is required
- outline the location, nature, and duration of the proposed works
- outline date/s of work, where practicable
- outline work hours
- include a diagram that clearly indicates the location of the works, where required
- include a 1300 community contact number, project email address and website details
- Provide details for a translation service, where required.

Table 5 below outlines minimum notification periods that will be targeted for work activities with the potential to impact sensitive receivers. All notification periods prescribed within development approvals or by approving bodies will be adhered to.

Regular construction updates regarding the general work program and significant milestones will also be provided to the school community and neighbouring properties throughout construction.

The contractor will provide SINSW with the information necessary to meet the notification requirements and target timeframes contained, where practicable.

Table 5: Target community notification periods

Notification period	Work activity
Same day (or as soon as practical)	Major incident, emergency works/unforeseen events
	Unplanned out of hours work (notification provided to affected residents by the contractor before undertaking the works or as soon as practical)
	Unexpected hazardous material find or incident (e.g. asbestos, lead, chemical spill or other harmful material)
7 days	Start of works or site establishment
	Works outside of the site boundary
	Planned out of hours work or change to approved work hours
	Planned investigation and remediation of hazardous materials including asbestos
	Phase of high noise generating works including demolition, tree removal, rock breaking, rock hammering, piling or similar
	Major traffic or pedestrian access changes including parking impacts, detours, and road diversions/closures
	Operational changes for the school community including to school drop-off points, entry and exit points, bus stops, and play space
3 months	Major impacts to school community, including relocation to temporary school, changes to student intake area or similar

6.5. Enquiries and complaints management

SINSW manages enquiries (*called interactions in our Customer Relationship Management (CRM) software, Darzin*), and complaints in a timely and responsive manner.

Prior to project delivery, a complaint could be related to lack of community consultation, design of the project, lack of project progress, etc.

During project delivery (construction), a complaint is defined as in regards to construction impacts – *such as* – safety, dust, noise, traffic, congestion, loss of parking, contamination, loss of amenity, hours of work, property damage, property access, service disruption, conduct or behaviour of construction workers, other environmental impacts, unplanned or uncommunicated disruption to the school.

If a phone call, email or face-to-face complaint is received during construction, it will be acknowledged within 2 working days and logged in our CRM, actively managed, closed out and resolved by SINSW within 10 days, where practicable. Where complaints are unable to be resolved within this timeframe the complainant will be provided with regular updates regarding the complaint resolution process.

A 24-hour contact number for the project site manager will be displayed at the site and can be shared with the community as necessary for any urgent issues that need to be addressed on site, outside of business hours.

As per our planning approval conditions, a complaints register is updated monthly, or as required by the planning authority, and is publicly available on the project's webpage on the SINSW website.

If the complainant is not satisfied with SINSW's response, and they approach SINSW for rectification, the process will involve a secondary review of their complaint as per the outlined process.

Complaints will be escalated when:

- An activity generates three complaints within a 24-hour period (separate complainants).
- Any construction site receives three different complaints within a 24-hour period.
- A single complainant reports three or more complaints within a three-day period.
- A complainant threatens to escalate their issue to the media or government representative.
- The complaint was avoidable.
- The complaint relates to a compliance matter.
- The complaint relates to a community safety matter.
- The complaint relates to a property damage claim.

Complaints will be first escalated to the Senior Manager, Community and Engagement or Director of Communications for SINSW as the designated complaints handling management representatives for our projects. Further escalation will be made to the Executive Director, Office of the Chief Executive to mediate if required.

If a complaint still cannot be resolved by SINSW to the satisfaction of the complainant, we will advise them to contact the NSW Ombudsman - <https://www.ombo.nsw.gov.au/complaints>.

Table 6 below outlines target timeframes for responding to enquiries and complaints, through each correspondence method:

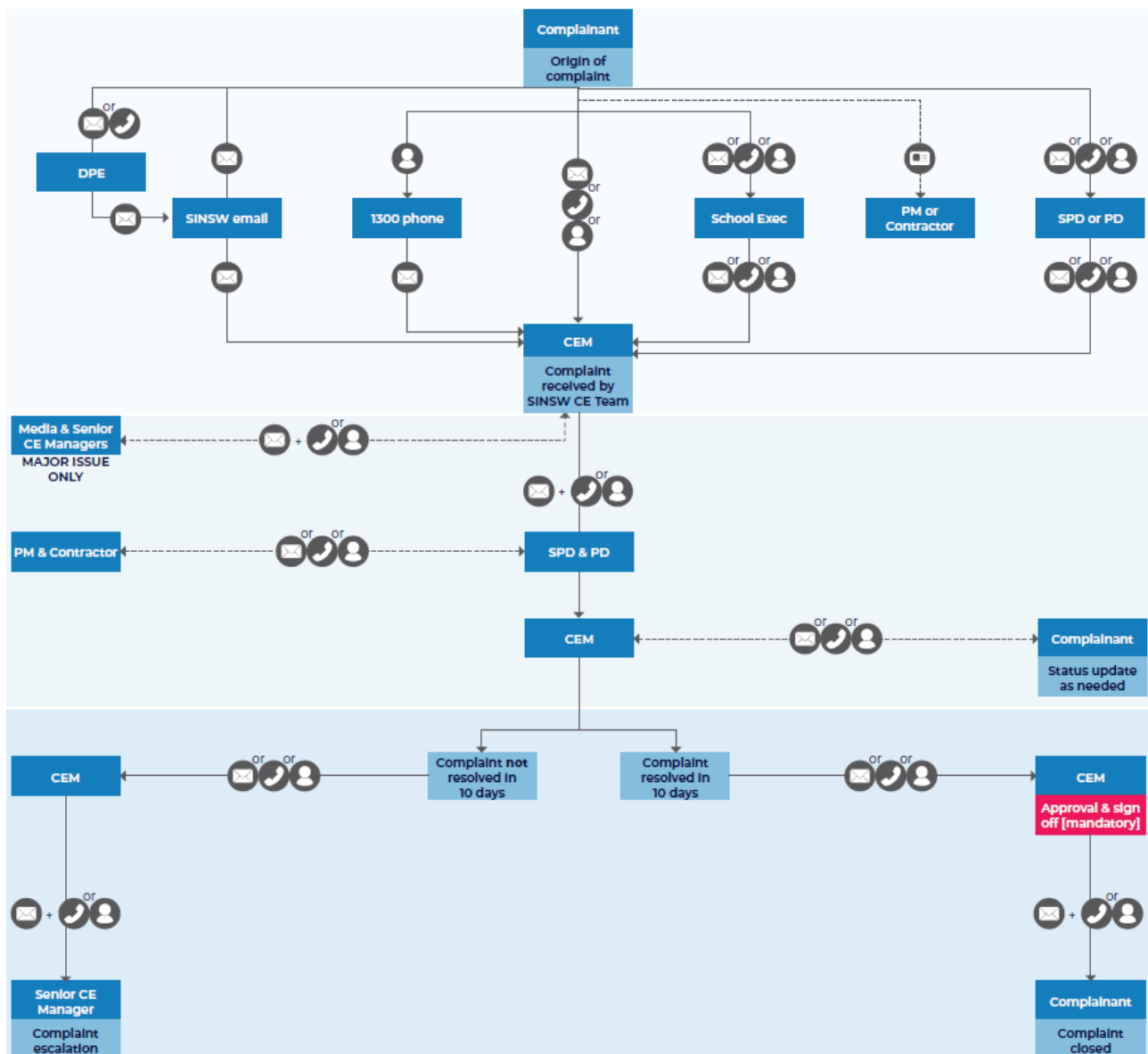
Table 6: Complaint and enquiry response time

Complaint	Acknowledgement times	Response times
Phone call during business hours	At time of call.	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Phone call after hours*	Within two (2) hours of receiving message upon returning to office.	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Email during business hours	At time of email (automatic response)	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Email outside of business hours	At time of email (automatic response)	Complaint to be closed out within 10 days, where practicable. If not possible, continue contact, escalate internally as required, and provide the complainant with regular updates until resolved.
Interaction/ Enquiry		
Phone call during business hours	At time of call.	Interaction to be logged and closed out within 10 days, where practicable.
Phone call after hours	Within two (2) hours of receiving message upon returning to office.	Interaction to be logged and closed out within 10 days, where practicable.

Complaint	Acknowledgement times	Response times
Email during business hours	At time of email (automatic response)	Interaction to be logged and closed out within 10 days, where practicable.
Email outside of business hours	At time of email (automatic response)	Interaction to be logged and closed out within 10 days, where practicable.
Letter	N/A	Interaction to be logged and closed out within 10 days following receipt, where practicable.

The below diagram outlines our internal process for managing complaints.

Figure 3 - Internal Complaints Process



6.5.1. Disputes involving compensation and rectification

School Infrastructure NSW is committed to working with the school and broader community to address concerns as they arise. Where disputes arise that involve compensation or rectification, the process for resolving community enquiries and complaints will be followed to investigate the dispute. Depending upon the results of the investigation, School Infrastructure NSW may seek legal advice before proceeding.

6.6. Incident management

An incident is an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance. Material harm is harm that:

- (a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or
- (b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).

6.6.1. Roles and responsibilities following an incident

In the event of an incident, once emergency services are contacted, the incident must be immediately reported to the SINSW Senior Project Director who will inform:

- a) SINSW Executive Director
- b) SINSW Community Engagement Manager
- c) SINSW Senior Manager, Community Engagement
- d) SINSW Communications Director

SINSW Communications Director will:

- a) Lead and manage all communications with the Minister's office in the event of an incident, with assistance as required
- b) Direct all communications with media to the SINSW Media Manager in the first instance for management
- c) Notify all other key project stakeholders of an incident.

The school and local community will be notified within 24 hours in the event of an incident, as per our notification timelines in Table 5.

The SINSW Senior Project Director will issue a written incident notification to Department of Planning & Environment (DPE) and Local Council (if required) immediately following the incident to set out the location and nature of the incident.

This must be followed within seven days following the incident of a written notification to the Department of Planning and Environment that:

- (a) identifies the development and application number;
- (b) provides details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
- (c) identifies how the incident was detected;
- (d) identifies when SINSW became aware of the incident;
- (e) identify any actual or potential non-compliance with conditions of consent;
- (f) describes what immediate steps were taken in relation to the incident;
- (g) identifies further action(s) that will be taken in relation to the incident; and
- (h) provides the contact information for further communication regarding the incident (the Senior Project Director).

Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, SINSW will provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below:

- (a) a summary of the incident;
- (b) outcomes of an incident investigation, including identification of the cause of the incident;
- (c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- (d) details of any communication with other stakeholders regarding the incident.

6.7. Reporting process

Throughout the project, data will be recorded on participation levels both face to face and online, a record of engagement tools and activities carried out in addition to queries received and feedback against emerging themes.

Stakeholder and community sentiment will be evaluated throughout to ensure effectiveness of the engagement strategy and to inform future activities.

A monthly report is prepared for all SINSW projects, which includes but is not limited to:

- a) Stakeholder engagement reporting – numbers of forums, participation levels and a summary of the outcomes
Community sentiment reporting – outputs of all community engagement activities, including numbers in attendance at events, participation levels and feedback received against broad themes
- b) Online activity – through the project website.