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DEMOLITION PLAN

S block, bus shelter, concrete ramp and pavements.
Hastings Secondary College, Port Macquarie

17th December 2021

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1. LOCATION

Various locations, western side to the school, Owens Street.

The attached photos in Appendix A provide a representation of the structures to be demolished.

2. HEIGHT AND DISTANCE TO BOUNDARY/OTHER STRUCTURES

The existing structure (S block) is 6 mtrs from the lower ground to roof barge capping. Which is in close vicinity of 2 existing structures. >5 mtrs from the Steel cola and 6 mtrs from the adjacent building.

3. TYPE OF STRUCTURE TO BE DEMOLISHED

The structure to be demolished is a timber building on concrete piers, the ramps are concrete with the lower part built from steel.

The demolition scope of works as identified in the Contract allows for the complete removal of all steel work, concrete and timber.

4. DEMOLITION METHODOLOGY

1. Prepare the work area by installing barrier tape / bunting to isolate the work area and form an exclusion zone of at least 6m from edge where applicable and room is sufficient
2. Supply 30t digger with grabs to remove all materials. Truck and dogs, along with all necessary tool and personal to complete the task at hand.
3. Saw cuts will be mad in the slabs and ramps for safe removal.

Prior to the commencement of demolition works, all services will be confirmed as isolated and disconnected by a licensed electrician. And plumber

5. MATERIALS HANDLING

Materials handling will be by mechanical plant (including, excavator with grabs) where the concrete will be loaded into trucks for later disposal / recycling.

As part of the demolition project HTS aim to:

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- maximization of recycling of demolition material
- minimization of waste disposal

There are known asbestos materials in the structure which will be removed under asbestos conditions prior to demolition an assessment made by an occupational Hygienist. All concrete and bricks will be recycled all other materials will be disposed as GSW waste at a licensed waste facility.

6. PROPOSED SEQUENCE

- Dilapidation Survey
- Review of underground services and structures plans (supplied by FKG).
- Disconnection and isolation of services (FKG)
- Supply a demolition plan
- Supply a Safe Work Method Statement
- Supply a Safety Management Plan including an ITP with nominated hold points
- Environmental management Plan
- Attend a Hazcon Meeting

All works are to be undertaken in accordance with relevant WHS Act and Regulation, Codes of Practice and EPA guidelines.

In principle, the demolition process is undertaken in the reverse sequence as construction.

It is estimated that it will take 2-3 days to demolish and remove from site the concrete and bricks.

7. PROTECTIVE MEASURES

The site is secured with temporary fencing currently used to define the construction site. This will be utilized as the demolition work area boundary. The access road way to the southern side of the work area is to remain accessible to all contractors, but HTS will have right of way for truck movements. Site fencing or bunting will be used to delineate the work area from the access road with access to be only allowed following approval by the site supervisor. Appropriate and required signage will be displayed at the work area entry points and on significant boundary lines.

During the demolition, dust control measures will be used to minimize the spread of dust from site.

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8. DEMOLITION EXCLUSION ZONE

As all demolition debris will be contained within the established work area fenced area, there should be no need for the establishment of an additional exclusion zones. The structure is in reasonably close proximity to the surrounding buildings; however, these buildings will be vacant.

Where an unacceptable risk arises which requires additional measures, a detailed Job Safety Analysis and Safe Work Method Statement will be prepared by the Contractor to establish an exclusion zone.

9. TRAFFIC MANAGEMENT

The management of transport truck traffic and activity during the demolition will be in accordance with the Demolition Manager.

During demolition, all site access will be via a single gate and will be controlled by the Demolition Manager. The site will remain closed to pedestrian traffic other than the inducted and approved personnel.

10. OH&S POLICY

A detailed OH&S Policy (SWMS) in compliance with AS4801 will be provided by the Contractor prior to work commencement. A detailed Site Safety Plan will be prepared for the specific project.

11. Addendum A. Lead remediation.

All lead remediations works will be done in accordance with RAP report supplied by WSP

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Appendix A –

Images of structure to be demolished

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Appendix B – RAP

FKG GROUP PTY LTD

ROOF VOID DUST INVESTIGATION

HASTINGS SECONDARY COLLEGE - PORT MACQUARIE CAMPUS - BLOCK S

JANUARY 2022

CONFIDENTIAL

Question today
Imagine tomorrow
Create for the future

Roof Void Dust Investigation
Hastings Secondary College - Port Macquarie Campus - Block S

FKG Group Pty Ltd

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REV	DATE	DETAILS
01	13/01/22	First Issue

	NAME	DATE	SIGNATURE
Prepared by:	Patricia Cox	13/01/22	
Reviewed by:	Joshua Trahair	13/01/22	
Approved by:	Joshua Trahair	13/01/22	

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1 INTRODUCTION

WSP Australia Pty Limited (WSP) was engaged by FLG Group Pty Ltd (the Client, FKG) to undertake a targeted hazardous materials inspection within the Block S roof void at Hastings Secondary College - Port Macquarie Campus, located at 16 Owen Street, Port Macquarie NSW 2444 (the Site).

It is understood that the building identified as Block S is scheduled to undergo demolition works with the potential to disturb contaminants of concern, and the client would like to determine the risks involved with respect to lead and asbestos exposure. This report includes the investigation and remediation recommendations required for the roof void in Block S only.

The sampling and inspection was undertaken within the roof void of Block S by Josh Kirk, Senior Environmental Scientist of WSP, on the 9th December 2021.

No one section or part of a section of this report should be taken as giving an overall idea of this report. Each section must be read in conjunction with the whole of this report.

The inspections were aimed at identifying asbestos containing material of high risk and lead in dust to the roof voids of the building requested only. Any works conducted to buildings, including within the roof voids, at the site should not proceed until the site-specific asbestos register has been assessed.

This report is not to be used exclusively as a contractor scope of works. The purpose of this report is to provide recommendations for the identified lead and/or asbestos containing materials prior to the abovementioned roof void/s undergoing refurbishment works at the site.

This report should be read in conjunction with the Asbestos Register for the site that includes full list of Asbestos Containing Materials occurrences.

2 LEGISLATIVE FRAMEWORK

This report has been prepared in accordance with the requirements of the following documents:

- SafeWork NSW, How to Manage and Control Asbestos in the Workplace: Code of Practice 2019;
- SafeWork NSW, How to Safely Remove Asbestos: Code of Practice 2019;
- Work Health and Safety Act 2011 (NSW);
- Work Health and Safety Regulation 2017 (NSW);
- Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC:3003(2005)];
- AS 1319, Standards Association of Australia, Rules for the Design and Use of Safety Signs for the Occupational Environment;
- AS 1715, Standards Association of Australia, Selection, Use and Maintenance of Respiratory Protective Devices;
- AS 1716, Standards Association of Australia, Respiratory Protective Devices;
- AS 4361.1 Guide to Hazardous Paint Management, Part 1: Lead and other hazardous metallic pigments in industrial applications 2017;
- AS 4361.2 Guide to Hazardous Paint Management, Part 2: Lead Paint in Residential and Commercial Buildings 2017;
- National Code of Practice for the Control and Safe Use of Inorganic Lead at Work [NOHSC: 2015 (1994)];
- AS 3640 Workplace atmospheres - Methods for sampling and gravimetric determination of inhalable dust 2009;
- NSW Protection of the Environment Operations Act 1997;
- ASTM D6966 Standard Practice for Collection of Settled Dust Samples Using Wipe Samples;
- 2017 Canadian (BC) Safe Work Practices for Handling Lead and US EPA Lead in Dust Guidelines.

2.1 REFERENCES

This report references the following document:

- Brookhaven National Laboratory (Industrial Hygiene Division) (2017) US Department of Energy; Surface Wipe Sampling Procedure (IH75190). accessed August 2020, https://www.bnl.gov/esh/shsd/sop/pdf/ih_sops/ih75190.pdf
- WSP Australia - Draft Department of Education Overarching Lead Management Plan (2020).

3 SCOPE OF SERVICES

The objectives of the targeted hazardous building materials inspection were to:

- Conduct a non-intrusive targeted inspection of roof void of Block S at Hastings Secondary College – Port Macquarie Campus, 16 Owen Street, Port Macquarie NSW 2444 to assess the following:
  - Asbestos containing materials (ACM)
  - Asbestos containing dust (ACD) – if required
  - Lead containing dust (LCD)
  - Lead containing paint (LCP) – if required
  - Synthetic mineral fibre (SMF) materials.
- Prepare a summary report detailing the findings of the investigation.

4 METHODOLOGIES

The roof void/s of Block S were sampled in accordance with the following endorsed methodologies.

4.1 INSPECTION

Access to the roof voids of Block S was made through an external gable end vent via temporary scaffolding provided by the Client. The inspections of the ceiling spaces were limited to accessible areas within the immediate vicinity of each accessed sampling location. All areas not accessed for inspection are presumed to contain the same conditions (similar lead levels) as the areas accessed.

4.2 ASBESTOS CONTAINING MATERIALS AND DUST

Accessible areas of the roof voids were visually inspected for evidenced of suspected asbestos containing materials. Where necessary, representative samples of suspected asbestos fibre cement and bulk dusts from accessible areas of the roof cavity will be collected and analysed at our in-house NATA Accredited Laboratory.

The identification of asbestos fibres will be based on using Polarised Light Microscopy supplemented with Dispersion Staining techniques. This is detailed in Australian Standard 4964-2004 *Method for the qualitative identification of asbestos in bulk samples.* Asbestos samples will only be collected for analysis where the safety of personnel would not be compromised.

4.3 LEAD DUST LOADING

The assessment included sampling of settled dust from various locations of the ceiling cavity. Samples were also collected within accessible areas of the roof void. Surface samples were collected using SKC Ghost Wipes (15cm x 15cm in size) with samples collected in accordance with the Occupational Health and Safety Administration (OSHA) Method 125G-2002 – '*Metal and Metalloid Particulates in Workplace Atmospheres (ICP Analysis)*'. All samples were collected by applying firm pressure and wiping the surface within the template in an overlapping 'S' shape pattern to cover the entire surface with horizontal strokes. The wipe was then folded onto the exposed side and the same area within the template was wiped using vertical 'S' strokes. The wipe was folded again on the exposed surface and the process repeated in the horizontal direction once again.

The Lead samples were analysed by NATA accredited laboratory Envirolab (methodology ICP-AES/MS and/or CV-AAS).

4.4 LEAD-BASED PAINT SYSTEMS

If identified during roof void inspection, representative samples of paint suspected to be lead based were collected and analysed at Envirolab Services NATA Accredited Laboratory. Laboratory analysis of lead-based paints is used to achieve a reportable weight by weight percentage of lead throughout the paint layers and is reported against AS/NZS 4361.2:2017, *Guide to Hazardous Paint Management, Part 2: Lead paint in residential, public and commercial buildings* lead containing paint system level of 0.1 per cent (w/w) of the dried film.

The analysis of the physical samples is achieved by digestion of the sample for determination of lead content by one of two methods, atomic absorption spectroscopy (AAS) or inductively coupled plasma emission spectrometry (ICP-AES). Collection of lead-based paint samples was only conducted where the safety of personnel would not be compromised. Sampling was conducted in accordance with the WSP Australia's in-house survey guide and AS/NZS 4361.2:2017, *Guide to Hazardous Paint Management, Part 2: Lead paint in residential, public and commercial buildings.*

Sampling methodology will consider the various paint coats and record these layers accordingly, these observations will be referred to alongside the analytical sample results to acknowledge that lead paint layers of varying lead content will affect the analytically observed lead weight concentration recorded from the sample. To this end, where multiple lead paint layers have been visually recorded but analytically determined lead percentage of the collective paint layers is below actionable limits, the paint undercoats may still be determined as hazardous due to its dilution in the sample by the non-lead topcoats.

4.5 SYNTHETIC MINERAL FIBRES (SMF) MATERIALS

If representative samples of materials suspected to contain asbestos were collected and analysed at WSP Australia's in-house NATA Accredited Laboratory, SMF can also be identified. The identification of SMF fibres is based on using Polarised Light Microscopy. Alternatively, our experienced surveyor visually identified and recorded the presence of synthetic mineral fibre products within the roof void.

5 GUIDELINES

5.1 ASBESTOS IN DUST

Visual inspection for high risk asbestos containing materials or debris was conducted during the inspection. No sampling of roof dust was collected as part of this assessment.

5.2 LEAD DUST LOADING

The superseded AS 4361.2 Guide to Hazardous Paint Management, Part 2: Lead Paint in Residential and Commercial Buildings 2018 do not have surface dust loading values as acceptance levels after lead paint management activities to denote sufficient cleaning or remediation.

In absence of the standards for acceptable lead levels, WSP has adopted the lead dust loading limits from the *Draft Department of Education Overarching Lead Management Plan (2020)* and (2017 Canadian (BC) *Safe Work Practices for Handling Lead* and US EPA Lead in Dust Guidelines).

Table 5.1 Lead in Dust Assessment Criteria

Location	**Lead in Dust (mg/m^2)**
Roof dust	4.3
Exterior areas	4.3
Interior surfaces	2.7
Interior floors and eating areas	0.43

For this assessment, as samples were taken in the roof void, a surface lead dust loading of **4.3 mg/m^2** has been adopted.

These surface contamination reference limits should be used as a guideline to assist in the evaluation and control of workplace housekeeping standards and not as defined lines between safe and un-safe levels. Wherever possible, surface dust loading levels should be as low as reasonably achievable (ALARA) and consider the risk to users and occupants.

Where lead dust within a ceiling space has been risk assessed and considered preferable and safe to remain in situ and managed, an **Action Level of 50 mg/m^2** can be applied before there is a need to undertake lead in dust reduction works. Where dust reduction works are undertaken and any post testing levels of roof voids cannot reasonably achieve <4.3mg/m^2 but levels are below the Action Level, the space can be either considered restricted with ongoing management or require further remediation and/or removal and should be undertaken in consultation with a qualified senior occupational hygienist. Note this level is not a clearance, rather it is an ongoing lead-impacted space that is considered safe to remain *in situ* until further remediation or demolition works are required or where a risk assessment indicates that the void is no longer safe to remain *in situ*.

Note this level is derived in consideration of the Brookhaven National Laboratory which includes restricted containment areas that require hygiene control practices, noting the requirement for the area to be “as free as reasonably practicable” of lead dust.

6 OBSERVATIONS

Access to Block S roof void was limited due to height and access restrictions. Sampling was conducted nearby to access point with samples being representative of the roof void. The following observations were made during sampling of Block S:

- The roof comprised corrugated metal roof sheeting.
- Heavy dust build-up was noted throughout the inspected roof void area/s. Dust samples for Lead were collected and submitted to the laboratory for analysis.
- Sarking below the roof sheeting was noted within the ceiling void and in good condition.
- Some loose building materials were observed within the roof void.
- No observed debris or high-risk ACM to accessible areas within the roof void.
- Presumed ACM sheet eave linings were noted to the side of the building, these materials were unable to be sampled or confirmed in the site asbestos register.

7 ANALYTICAL RESULTS

7.1 ASBESTOS

No asbestos samples were taken at the time of this roof inspection. The eave linings surrounding Block S are presumed to be asbestos containing.

7.2 LEAD DUST LOADING

The two dust samples collected exceeded the adopted lead dust loading for roof dust of 4.3 mg/m^2 and are highlighted in bold. Additionally, one dust sample collected returned above the adopted remediation Action Limit of 50 mg/m^2 . The results are presented in Table 7.1 below.

Table 7.1 Lead Dust Samples, 9th December 2021

SAMPLE NUMBER	SAMPLE DATE	LOCATION	RESULTS
WSP-164511	09/12/2021	Block S roof cavity, western end	32 mg/m^2
WSP-164512	09/12/2021	Block S roof cavity, western end	65 mg/m^2

7.3 SUMMARY AND MANAGEMENT OPTIONS

Based on the findings of the visual inspection and the results of the collected samples, Block S roof void is considered lead dust contaminated.

Remediation of the lead containing dust is recommended throughout the roof void of Block S prior to demolition to limit potential migration of contaminants and exposure risk to both workers who enter the roof void and any potential contamination to classrooms and other occupied/neighbouring areas from roof void dust disturbance.

Section 8 below provides ACM and Lead in Dust Removal Recommendations for remediation of the roof void prior to / during the demolition process.

8 ASBESTOS AND LEAD REMOVAL REQUIREMENTS

The following sections outline the requirements for the safe remediation of **non-friable** asbestos and **lead** containing dust from the ceiling voids of Block S at Hastings Secondary College – Port Macquarie Campus.

8.1 GENERAL REMEDIATION STEPS

The removal works are to be undertaken employing the following general steps. This approach is recommended to reduce the risk of exposure during works.

It is recommended the asbestos eave linings to Block S be removed prior to lead dust remediation works.

1. Set-up of removal area and enclosure
2. Controlled access to the roof void facilitated through internal manhole or gradual removal of roof cladding
3. Removal and decontamination of lead containing dust through HEPA vacuuming
4. Visual inspection of the remediated void by an Occupational Hygienist to ensure works area has been remediated to a practicable standard
5. Encapsulation of all internal roof surfaces within the void through application of paint/dye solution

During all general steps outlined above, assessment and airborne lead dust monitoring will be required by an Occupational Hygiene Consultant.

8.2 ASBESTOS REMOVAL (NON-FRIABLE)

It is recommended the following general steps are followed for the safe remediation of the presumed non–friable ACM eave lining to Block S:

- A removal contractor holding a minimum Class B Asbestos Removal Licence be engaged to conduct the removal works
- It is the responsibility of the asbestos removal contractor to provide an Asbestos Removal Control Plan (ARCP) for the works, which will be reviewed by the attending DoE panel Occupational Hygienist/LAA prior to removal works being undertaken
- The ACM eave lining is to be collected and the immediate area (minimum 1 metre radius from the eaves) decontaminated through HEPA vacuuming and wet wiping
- Airborne fibre monitoring is required by a DoE panel appointed Occupational Hygienist/LAA during works with a clearance inspection undertaken at completion.

Please note: it is recommended that an unexpected finds protocol be in place during the lead dust remediation works. In the case ACM fragments are uncovered during lead dust remediation, it is required that works stop, and areas are made safe until the suspect material can be assessed by a DoE panel appointed Occupational Hygienist/LAA.

8.3 LEAD REMOVAL

Prior to remediation works at the site, the following is required:

- All vents, holes and cracks to the ceiling linings are to be sealed to a practicable standard to prevent any natural air flow within the roof voids.
- It may be required that the internal rooms below the roof voids to be remediated are encapsulated with 200 microns thick virgin polythene to ensure any dust migrating through ceiling linings is captured before contaminating items/materials within the habitable spaces below.
- To complete the above it may be necessary to remove items such as awnings, solar panels, fences, trellises or other fittings attached to the roof or walls, that may impact upon the enclosure or scaffold set-up.

The dust removal works shall be undertaken by a suitably experienced contractor using the following cleaning procedures:

- A designated personal decontamination area is to be made available.
- Following the successful erection of an enclosure, visual inspections are recommended by the Occupational Hygiene Consultant. All enclosures are to be reinspected periodically to ensure proper maintenance.
- Removal of bulk dust using dry-cleaning procedures including the use of industrial vacuum cleaners fitted with HEPA (high efficiency particulate air) filters that comply with AS/NZS 60335.2.69:2003 “Household and Similar Electrical Appliances - Safety - Particular requirements for wet and dry vacuum cleaners, including power brush, for industrial and commercial use” and AS 4260:1997 “High efficiency particulate air (HEPA) filters - Classification, construction and performance”.
- Following removal of dust, all surfaces within the roof void are to be encapsulated with PVA and paint/dye solution.
- Once satisfactory remediation of each section is complete and safe access is provided, clearance inspection and/or validation sampling is to be conducted by the Occupational Hygiene Consultant.

8.4 GENERAL REQUIREMENTS

- Notification is required to the Regulator seven (7) days prior when lead risk work is undertaken by the person conducting a business or undertaking at a workplace after determining that the work is lead risk work (Clause 403 (1) of the WHS Regulation).
- The WHS Regulation defines Lead Risk Work as work carried out in a lead process that is likely to cause the blood lead level of a worker carrying out the work to exceed:
    (a) for a female of reproductive capacity - 5µg/dL (0.24µmol/L), or
    (b) in any other case - 20µg/dL (0.97µmol/L).
- Whilst it is not clear if the removal of lead laden dust from roof void constitutes lead risk work, it is recommended that if the works are unable to be determined as lead risk works it is best practice to notify the regulator.
- Immediately adjacent neighbours should be warned of the lead removal works approximately 2-3 days before works commence. This can be done in person and preferably in writing.
- The work area and the removal site should be clearly defined, and access restricted to prevent unauthorised personnel entering that area. This should comply with AS 4687 Temporary Fencings and Hoardings and AS 1725 Chain-link Fabric Security Fencing and Gates. Site sheds should be placed within the fenced area where possible.
- Potential entry points to the work area should be signposted and barrier taped in accordance with AS1319-1994 Safety Signs for the Occupational Environment.

- Access into the site should be restricted during all removal works.
- It is preferable to conduct remediation works outside of normal school hours where practical.
- Works can be conducted within normal school hours if access to the work area is adequately restricted, including a defined exclusion zone or physical barrier extending up to 10 metres, where practicable, from the works area. The border of the exclusion zone should be clearly delineated using timber hoarding or temporary fencing lined with 200 microns thick virgin polythene sheeting.
- Dust suppression equipment, spray equipment, surfactants, foams, plastic sheeting, lead waste bags, P3 filter respirators, tools and PPE must be available on site and ready to use.
- It's recommended that PVA sprays are colour tinted so that no areas requiring the spray are inadvertently overlooked.
- If signs of suspected asbestos containing materials, dust or debris are observed during remediation works the following should occur:
  - Stop work;
  - Report signs to the site supervisor immediately;
  - Isolate the area with a physical barrier;
  - Assume the area is contaminated until an assessment proves otherwise;
  - Engage a Licensed Asbestos Assessor to assess the area to identify contaminants.

8.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- All contracted removalists on site are to wear appropriate PPE such as ankle high safety boots, hi-visibility vests, eye protection and other PPE specifically for hazmat remediation.
- Work will also require the use of gloves, disposable coveralls (Type 5 & 6 protection specification), and boot coverings.
- The principal exposure pathway for lead exposure is via ingestion. Personal Protective Equipment (PPE) and thorough personal cleaning procedures must be used to reduce the potential of exposure. A minimum of P2 respiratory protection shall be worn by all persons within the Lead Removal Area on site.
- All persons engaged in removal work should wear appropriate PPE including a minimum P2 respiratory protective equipment (RPE) conforming with the requirements of AS/NZS1716-2003 Respiratory Protective Devices' and AS/NZS 1715:2009 Selection, Use and Maintenance of Respiratory Protective Devices.
- Protective clothing should be made from materials which provide adequate protection against fibre penetration. Disposable coveralls should comply with the Type 5 & 6 protection specifications.
- Respirators shall be issued on a personal basis. Respirators shall conform to the requirements of Australian Standards AS1715 and AS1716.
- Persons required to wear respiratory protection shall have received training and instruction on the selection of appropriate equipment, its usage and maintenance.
- Persons required to wear facial fit respirators shall be clean shaven.
- Non-disposable respiratory protection must be cleaned regularly, at least at the end of every shift.
- Cleaning and maintenance of respirators should be carried out in an area free of lead dust contamination.

8.6 WASTE DISPOSAL

- All lead containing materials removed must be placed on trucks or in skip bins lined with 200µm thick polythene sheeting and equipped with a cover to prevent the spread of dust during travel.
- Lead waste is to be placed within 200µm thick polythene bags and securely taped shut before disposal.
- Any bags or polythene parcels shouldn't be over packed, so they can be safely transported. If waste is awkward in shape or weight a two or three-person lift should be implemented.
- Bins and/or trucks should be utilised during the removal process and placed inside the lead removal work area and kept covered when not in use.
- When bins (if used) are ready to be moved from the work area they must be sealed and inspected by the Occupational Hygiene Consultant to ensure they are sealed correctly prior to movement to the waste disposal facility.

8.7 DECONTAMINATION

- Personal decontamination must be undertaken each time workers leave the work area and at the completion of the removal work. Personal decontamination should be done within the work area where re-contamination cannot occur.
- For the duration of lead removal works it is preferred a wet 3-stage decontamination unit be set up adjacent to, and directly connected with, the work area. As a minimum a decontamination area is to be constructed immediately adjacent the work area for personal decontamination.
- During personal decontamination, it is imperative that anyone conducting works in the roof void take extra care to wash hands and face within the decontamination area using soap/wet wipes, and to avoid eating, drinking or smoking until skin has been thoroughly washed.
- Tarps used to temporarily cover the bare roof structure are to be decontaminated and/or cleared of lead dust or disposed of as lead waste.

8.8 AIR MONITORING AND CLEARANCE PROCEDURES

- The Occupational Hygiene Consultant will be required to carry out a full visual inspection of the work area prior to the commencement of any hazardous materials removal works to ensure containment measures are satisfactory.
- During all asbestos removal works 'work in progress' control air monitoring should be undertaken surrounding the asbestos removal work area, in addition to air monitoring on the perimeter of the site, within decontamination areas and the waste transit route.
- The Occupational Hygiene Consultant is to set up control air monitoring for airborne asbestos and lead around the perimeter of the work area before work commencement until work completion, with results to be provided to the person responsible for remediation works.
- Airborne fibre monitoring should be carried out by an LAA in accordance with *National Occupational Health and Safety Commission (NOHSC) (2005), Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres [NOHSC:3003(2005)], NOHSC, Australia.*
- Airborne lead monitoring shall be carried out by competent person in accordance with *National Occupational Health and Safety Commission (NOHSC) (2005), Code of Practice for the Control and Safe Use of Inorganic Lead at Work [NOHSC:2015(1994)], NOHSC, Canberra, Australia.*

- In the case of airborne fibre or lead monitoring exceeding the exposure criteria, work will cease immediately until the leakage is rectified.
- The Occupational Hygiene Consultant will be required to carry out a full visual inspection of the work area prior to the commencement of any hazardous materials removal works to ensure containment measures are satisfactory.
- Safe access is to be provided for visual inspection of work areas by the Occupational Hygiene Consultant.
- Following remediation, the onsite Occupational Hygiene Consultant will perform a visual inspection to assess if the area has been remediated to a practicable standard.
- If removal works are not to the satisfaction of the Occupational Hygiene Consultant, removal contractors will be required to re-enter the work area and rectify any issues arising from the inspection.
- Only following satisfactory clearance inspection will removal works be deemed as completed, and works allowed to progress to the next stage of site works.
- If removal works are to the satisfaction of the Occupational Hygiene Consultant, the removal contractor may then proceed with application of paint/dye solution within the ceiling void.
- A final inspection of the work site will be required following removal of the controls and equipment to ensure no debris or dust remains onsite.

9 LIMITATIONS

PERMITTED PURPOSE

This Report is provided by WSP for the purpose described in the Agreement and no responsibility is accepted by WSP for the use of the Report in whole or in part, for any other purpose (Permitted Purpose).

QUALIFICATIONS AND ASSUMPTIONS

The services undertaken by WSP in preparing this Report were limited to those specifically detailed in the Report and are subject to the scope, qualifications, assumptions and limitations set out in the Report or otherwise communicated to the Client.

Except as otherwise stated in the Report and to the extent that statements, opinions, facts, conclusion and / or recommendations in the Report (Conclusions) are based in whole or in part on information provided by the Client and other parties identified in the report (Information), those Conclusions are based on assumptions by WSP of the reliability, adequacy, accuracy and completeness of the Information and have not been verified. WSP accepts no responsibility for the Information.

Where the survey identifies that hazardous materials are on site, the Conclusions are indicative of the presence of hazardous materials and cannot be regarded as absolute without further extensive sampling, outside the scope of the services set out in the Agreement. Site conditions, including the extent and visibility of hazardous materials, can change with time. On all sites, varying degrees of non-uniformity of conditions are encountered and the presence of hazardous materials which are not visually apparent at the time of inspection, are not likely to be detected. No monitoring, common testing or sampling technique provides results that are totally representative of the presence or non-presence of hazardous materials at the Site. Site conditions, including subsurface conditions can change with time due to natural and anthropogenic causes.

Only material that was physically accessible at the time of inspection was sampled. Consequently, not all hazardous material may have been located at the Site. The survey identifying hazardous materials on site should be reviewed prior to demolition or refurbishment as a more detailed destructive survey may be required prior to demolition or refurbishment works. Care should be taken during normal site works, refurbishment or demolition works when entering previously inaccessible areas. If suspect material is encountered, works should cease in the area until samples have been collected and analysed by competent personnel.

It is impossible to locate all hazardous materials during an inspection. This is due to such factors as (without limitation):

- Time, budget and constraints requested by the Client;
- Access restrictions;
- The need to avoid causing physical damage to fixtures or structures on the Site;
- The need to minimise hazardous materials exposures to building occupants;
- The need to minimise inconvenience when the Site is in use (e.g. occupied) whilst an inspection is being conducted; and / or
- The availability of relevant building / plant construction plans.

Hazardous materials that could be routinely encountered in the normal day-to-day activities occurring on the Site, have been identified and assessed, however there is no guarantee that the Site is free of hazardous materials, since future activities may reveal hazardous materials in areas inaccessible or unknown to WSP.

Within the limitations referred to above, the preparation of this Report has been undertaken and performed in a professional manner in accordance with generally accepted practices, using a degree of skill and care ordinarily exercised by reputable consultants. No other warranty, expressed or implied, is made.

WSP has prepared the Report without regard to any special interest of any person other than the Client when undertaking the services described in the Agreement or in preparing the Report.

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WSP is not (and will not be) obliged to provide an update of this Report to include any event, circumstance, revised Information or any matter coming to WSP's attention after the date of this Report. The passage of time; manifestations of latent conditions; or the impact of future events (including (without limitation) changes in policy, legislation, guidelines, scientific knowledge; and changes in interpretation of policy by statutory authorities); may require further investigation or subsequent re-evaluation of the Conclusions.

This Report can only be relied upon for the Permitted Purpose and may not be relied upon for any other purpose. The Report does not purport to recommend or induce a decision to make (or not make) any purchase, disposal, investment, divestment, financial commitment or otherwise. It is the responsibility of the Client to accept (if the Client so chooses) the Conclusions and implement any recommendations in an appropriate, suitable and timely manner. WSP does not (and will not) accept liability arising out of or in connection with any health or safety risks associated with hazardous materials.

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APPENDIX A

SITE PHOTOGRAPHS

	
Photo 1: Access point to Block S roof void	Photo 2: Scaffolding to Block S
	
Photo 3: Building materials within Block S roof void with heavy dust build up	Photo 4: Block S internal roof void – heavy dust build-up present and sarking in good condition

Photo 5: Presumed ACM eave linings

APPENDIX B

CERTIFICATES OF ANALYSIS

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 285032

Client Details

Client	WSP Australia Pty Limited
Attention	Joshua Trahair
Address	PO Box 1162, Newcastle, NSW, 2300

Sample Details

Your Reference	**Hastings Secondary College (8364) - Ceiling**
Number of Samples	2 swab
Date samples received	10/12/2021
Date completed instructions received	10/12/2021

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	14/12/2021
Date of Issue	14/12/2021

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Thomas Lovatt, Chemist

Authorised By

Nancy Zhang, Laboratory Manager

Lead in swab			
Our Reference		285032-1	285032-2
Your Reference	UNITS	WSP-164511	WSP-164512
Date Sampled		09/12/2021	09/12/2021
Type of sample		swab	swab
Date prepared	-	13/12/2021	13/12/2021
Date analysed	-	13/12/2021	13/12/2021
Lead in Swabs	µg/swab	320	650
Lead in Swabs	mg/m^2	32	65

Method ID	Methodology Summary
Metals-020/021/022	Digestion of Dust wipes/swabs and /or miscellaneous samples for Metals determination by ICP-AES/MS and/or CV-AAS

QUALITY CONTROL: Lead in swab						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			13/12/2021	[NT]	[NT]	[NT]	[NT]	13/12/2021	[NT]
Date analysed	-			13/12/2021	[NT]	[NT]	[NT]	[NT]	13/12/2021	[NT]
Lead in Swabs	µg/swab	1	Metals-020/021/022	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Lead in Swabs	mg/m^2	0.1	Metals-020/021/022	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

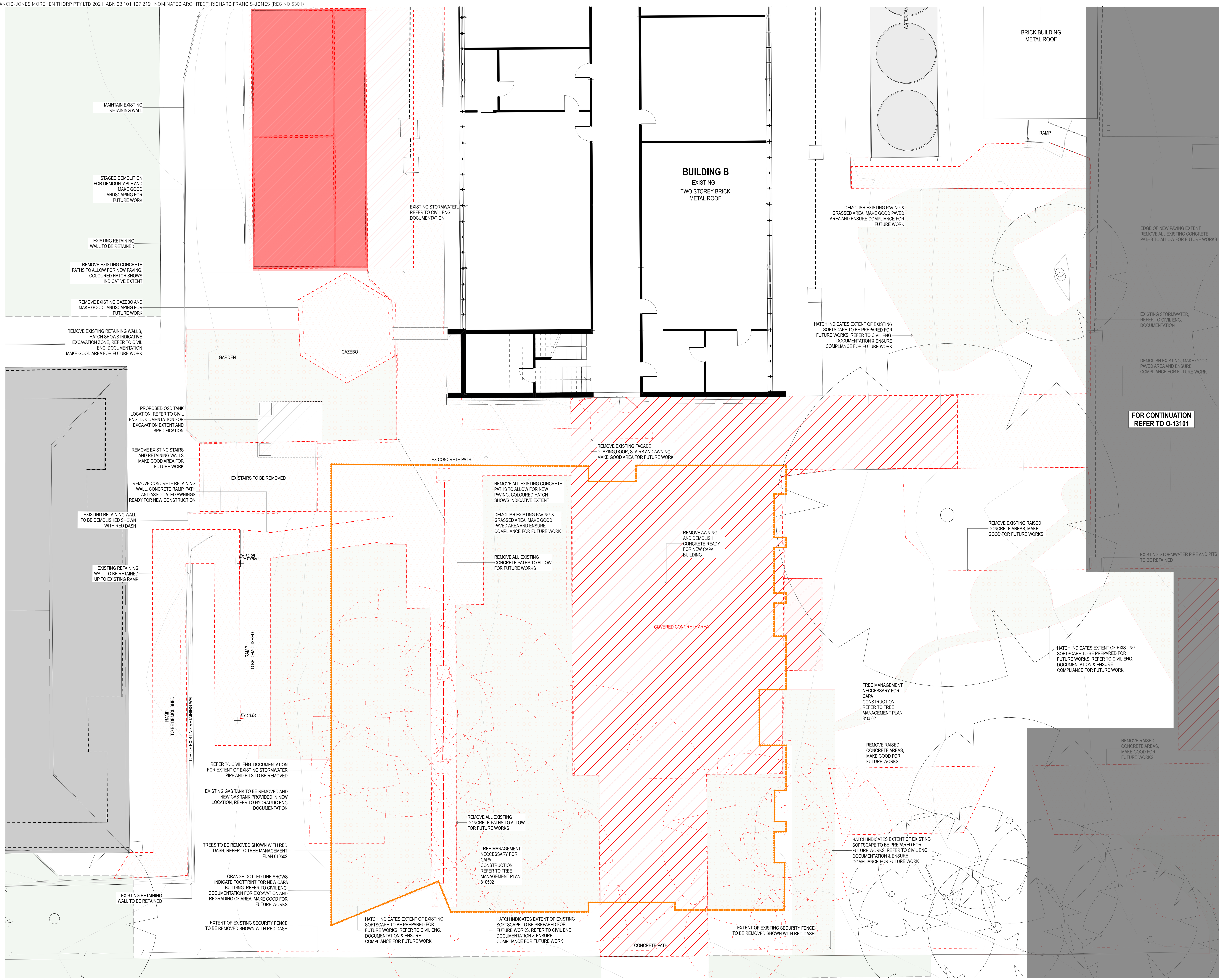
Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

1300 600 144
www.grouphts.com.au

Head Office
92 Glenwood Drive, Thornton NSW 2322
PO Box 3306, Thornton NSW 2322

Appendix C – Demolition Plan



fjmtstudio

0 1 2 5m

General notes

- All dimensions and existing conditions shall be checked and verified by the contractor before proceeding with the work.
- All levels relative to 'Australian Height Datum'.
- Do not scale drawings.
- Use figured dimensions only.

Legend

- TO BE DEMOLISHED
- EXTENT OF EXISTING HARDSCAPE TO BE REMOVED FOR FUTURE WORKS
- EXTENT OF EXISTING SOFTSCAPE TO BE REMOVED FOR FUTURE WORKS
- CDC1 DEMOLITION EXTENT (STAGE 1)
- PROPOSED OSD TANK LOCATION
- PROPOSED STORMWATER PIPE AND PITS
- EXISTING STORMWATER PIPE AND PITS TO BE REMOVED
- EXISTING STORMWATER PIPE AND PITS TO BE RETAINED
- PROPOSED BUILDING FOOTPRINT
- EXISTING FENCE LINE TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO BE RETAINED

rev	date	name	by	chk
A	14/12/21	For Construction	SJP	
02	8/12/21	For Information	SJP	
01	2/12/21	For 100% Design Development	SJP	

Hastings Schools Port Macquarie
Hastings Secondary College
Port Macquarie NSW 2444

Site Demolition & Preparation — Demolition Plan - CAPA Building

Scale 1:100 @ A1

Project Code HSPM

First Issued 02/12/2021

Sheet No. PMC-FJMT-AR-C-13001

Rev A

18 January 2022

Metro BC
Suite 102, 12 Mount Street,
North Sydney NSW 2060

By Aconex: sean@metrobc.com.au

Dear Sean,

Project:	Hastings Secondary College – SSD 11920082
Contractor:	FK Gardner & Sons Pty Ltd
Principal:	School Infrastructure NSW

Re: Condition B12 – Demolition

FKG confirm that the proposals contained in the HTS Group Demolition Plan comply with the safety requirements of the Standard AS 2601-2001 - The Demolition of Structures, in particular Section 2.3 Work Plans.

Yours sincerely,

Josh Pointon

Project Manager
FK Gardner & Sons Pty Ltd

NEWCASTLE
P 0746 200 500 **E** info@fkg.com.au
Suite 8, 335 Wharf Road, Newcastle, NSW 2300
PO Box 838, Newcastle, NSW 2300

FK Gardner & Sons Pty Ltd ABN 99 010 136 053

JOSH POINTON

PROJECT MANAGER

THE 5 WHYS

Why we have nominated Josh Pointon for the Hastings Secondary College Project

1. Ability to lead a design team and take the concept design at Development Application stage through to the completion of a finished building
2. Experience in project managing teams across geographically spread work fronts
3. Strong skills in ensuring compliance with the NCC/BCA, Australian Standards, SEPP65 whilst meeting/achieving the expectations of the client and maintaining the project budget through a value engineering process
4. Previous NSW Education experience through role on Hunter River Community School
5. More than 15 years experience delivering projects across NSW, 12 of which have been as Project Manager.

QUALIFICATIONS

- Bachelor of Construction Management (Building) w/Honours - UoN (completed 2004)
- Leading the Way Training – The Learning Circle
- Senior First Aid Certificate – St John Ambulance

CAREER SUMMARY

Josh is a results-driven Project Manager with more than 15 years experience delivering a vast range of projects in the educational, commercial, residential, heritage, and institutional sectors. He has highly developed communication and administration skills, with a proven track record in delivery of Design and Construct projects in NSW.

Coming from technical Engineering roles on site, Josh possesses excellent skills in reviewing design documentation and critically analyses documents for efficiency. With strong skills and experience in managing the Development Application stage of projects, Josh will play a key role in ensuring a smooth Design Finalisation process through construction and successful achievement of Final Occupation Certificates.

As Project Manager for the Hunter River Community School Josh is familiar with NSW Department of Education guidelines and will use this experience to ensure effective engagement with the schools through open and transparent communication channels.

Delivering complex Design and Construct projects up to $44 million in value, Josh understands what is required to deliver a similar scaled project from concept through to completion and will be an effective leader of the Hastings PS project team.

RESPONSIBILITIES

Josh will be the Project Manager, bringing his previous education and operational sit experience to Hastings Secondary College, with the following responsibilities:

- Manage the design development and finalisation through the Design Managers
- Key point of contact for stakeholder engagement and SINSW communication
- Chair site safety committee and ensure compliance across the site
- Oversee production and implementation of Management Plans
- Oversee subcontractor procurement
- Manage the construction through the Site Manager
- Preparation of Contractors reporting requirements

REFEREES

Allan McCully
Project Engineer
Richard Crookes Construction
Phone: 0432 413 440

Michael Whyte
Site Manager
Richard Crookes Construction
Phone: 0488 304 745

SUMMARY EXPERIENCE MATRIX

Project	Position	Education Project	Operational Environment	Design and Construct	Multiple stakeholders
Hunter River Community School ($9M)	Project Manager	●		●	●
Lakes Grammar School Stage 4 ($3M)	Project Manager	●	●	●	●
Toronto Foreshore Apartments ($28M)	Project Manager			●	●
Herald Apartments Newcastle ($44M)	Project Manager		●	●	●

JOSH POINTON | PROJECT MANAGER

DETAILED PROJECT EXPERIENCE:

2019 –2021 **Project Manager | Foreshore Toronto | Richard Crookes**

$27 million | Design and Construct | Stevens Group | Toronto, NSW

Design & Construct delivery of 37 bespoke residential units across 3 buildings ranging from 3-4 storeys in height on the water's edge of Lake Macquarie, each with a unique floorplan and no two apartments the same./the main building also included a ground-floor commercial tenancy. Works also included external terraces, private lawn, lift & internal stairwell, basement and basement parking for 93 vehicles and associated landscaping.

Key to the project was managing the expectations of both the Private Certifying Authority and Local Council in fulfilling the requirements to gain the Construction Certificate. Josh also successfully managed the completion and application for a Section 4.55 (formally Section 96) to alter the DA Approval. He also managed and closed out the reports from Council / PCA to gain an Occupancy Certificate as well as successful application and certificate of completion for Council's Section 138 works.

2017 – 2018 **Project Manager | Herald Apartments | Richard Crookes**

$44 million | Design and Construct | EG Funds & Stronach Property | Newcastle, NSW

Design & construction of 8 storeys of residential units with 3 storeys of underground car parking. This new residential building was integrated with the retained section of the existing Herald newspaper building which was refurbished into 4 levels of commercial space and the restoration of its heritage listed façade.

2016 –2017 **Project Manager | NSW (M&H) Air Conditioning Pty Ltd**

Project manager for the installation of HVAC systems across over 65 projects RAAF Williamtown Sensitive Compartmentalised Information Facility, Singleton Hospital Upgrade, Benhome Aged Care Facility, Bayswater Power Station, and Cranbrook School Wolgan Valley Campus.

Josh was responsible for the organisation and ordering of materials for the installation of HVAC Systems as well as labour resource management across 20-30 projects at any one time. He also performed Mechanical Engineering calculations for duct sizing and heat loads & general assistance of the in-house Mechanical Engineer

2014 - 2015 **Project Manager | Mariners Centre of Excellence | North Construction**

$17.5 million | Design and Construct | Mariners FC Developments | Newcastle, NSW

Prior to the commencement of the 6 storey building, the new permanent access to the existing site needed to be constructed. Due to the ground conditions this required significant site coordination and input from the Civil and Geo-technical Engineers.

The Centre of Excellence building is supported by significant grout injected piles required to overcome the poor ground conditions. The main structure was erected quickly utilizing a combination of peri formwork systems, metal permanent formwork, post tension slabs and dincel wall forms to core areas of the fire stairs and lift shaft. Each of the suspended floors were poured in 2 sections to allow a staggered format allowing the pouring and stripping sequence to flow very smoothly. Frametec floor to floor wall system was used in lieu of conventional glazed curtain wall system as this sped up the construction process as it followed behind the floor pours and allowed to seal the building faster.

2012 – 2013 **Project Manager | Hunter River Community School | North Construction**

$9 million | Design and Construct | NSW Department of Education | Newcastle, NSW

The project was fast-tracked by NSW Public Works and Dept Education & Communities and involved the design and construction of the new Hunter facility for students with special needs.

The School provides a high level of assisted learning and amenity for students including specialised disability access, mobility equipment, hydrotherapy, specialised learning and undercover play.

2011 - 2012 **Project Manager | Lakes Grammar Anglican School | North Construction**

$2.2 million | Design and Construct | Lakes Grammar Anglican School | Newcastle, NSW

Continuing Norths relationship with Lakes Grammar Anglican School Stage 4 included a new multipurpose hall incorporating full size basketball courts/sport floor and performance stage. These works were programmed in close consultation with the school to allow full operation of all campuses during construction and completed ahead of programme requirements meaning that the school was able to utilise the facilities ahead of the originally programmed date.

HASTINGS SECONDARY COLLEGE PROJECT