



Hale Capital Partners
Interim Environmental Management Plan

42-52 Raymond Avenue
Matraville, NSW

15 December 2021
60654/142642 (Rev B)
JBS&G

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Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AF	Asbestos Fines
AMP	Asbestos Management Plan
DP	Deposited Plan
EPA	Environment Protection Authority
FA	Fibrous Asbestos
JBS&G	JBS&G Australia Pty Ltd
JSRA	Job Safety Risk Assessment
LAA	Licensed Asbestos Assessor
EMP	Long Term Environmental Management Plan
NOHSC	National Occupational Health and Safety Commission
NSW	New South Wales
PAHs	Polycyclic Aromatic Hydrocarbons
PPE	Personal Protective Equipment
RAP	Remedial Action Plan
SWMS	Safe Work Method Statement
WHS	Work Health and Safety

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by Hale Capital Partners (Hale, the client) to prepare an Interim Environmental Management Plan (EMP) for 42-52 Raymond Avenue, Matraville, NSW (the site). The site is legally identified as Lot 1 DP 369668, Lot 32 Section B DP 8313, and Lot 1 DP 511092, and has an approximate site area of 1.98 hectares (ha). The site location and current site layout are shown on **Figures 1** and **2** respectively.

It is understood that the interim EMP is required up until redevelopment of the site commences at which time a Principal Contractor will prepare a Construction Environment Management Plan (CEMP)/Asbestos Management Plan (AMP) for implementation during site development.

Contamination has been identified at the site including asbestos containing materials (ACM) within fill materials from historical development of the site and total recoverable hydrocarbons (TRH) impacted soils and groundwater associated with former locations of five underground storage tanks (USTs) that had historically been used to store petroleum fuels at the site, a holding tank and interceptor pit and locations of fuel lines and former fuel bowser.

The contaminated soils have been identified in previous investigations of the site. Asbestos impacted fill is present beneath concrete pavement, which covers all but an unpaved strip of land down the western side of the site adjoining a heritage listed Sydney Water stormwater channel. Known USTs, which were located in the southern portion of the unpaved western portion of the site have been removed to the extent practicable, except for one UST located at the southwestern extent of the former UST area as it was in close proximity to the heritage listed stormwater canal. Not all impacted soils in the vicinity of the USTs channel walls could be removed and TRH impacted soil and groundwater remain in this portion of the site. Some friable asbestos impacted soils have previously been removed from the northern portion of the western unpaved portion of the site and an asbestos clearance was prepared for this area. However, the underlying fill should be assumed to be potentially impacted with asbestos.

This EMP is required to ensure that the environmentally impacted soils (including asbestos affected materials) are appropriately managed to ensure protection of human health and the environment prior to redevelopment of the site.

Through the presence of asbestos as a known contaminant in the soils this EMP has been prepared specifically in accordance with Clause 429 of the *Work Health and Safety Regulation* (2017) that states, *"If asbestos or ACM is identified at a workplace under clause 422, or likely to be present at a work place from time to time, a person with management or control of the workplace must ensure a written plan (an asbestos management plan) for the workplace is prepared"*.

This EMP applies to the asbestos impacted soils present across the site and its current undeveloped condition. It is not intended to apply to major excavations, earthworks or construction activities. A specific management plan should be prepared in the event that any major works are proposed for the site.

1.2 Objectives

The objectives of this EMP are to:

- Protect the health of contractors and visitors from the residual environment hazards (specifically inclusive of asbestos) prior to redevelopment of the site;
- Outline management requirements to ensure that the risk posed by environmentally impacted soils identified at the site is properly managed and maintained;
- Provide guidance on the responsibilities of maintaining the requirements of this EMP;
- Provide guidance on the appropriate control measures to be implemented in the event that intrusive works are required at the site; and
- Provide guidance on the appropriate procedures to manage works within environmentally impacted materials (specifically inclusive of asbestos as per requirements of the *Work Health and Safety Regulation 2017*).

2. Summary of Site Conditions

2.1 Site Details

The site location is shown on **Figure 1**. The site layout and associated cadastral boundaries are shown on **Figure 2**. The site details are summarised in **Table 2.1** and described in detail in the following sections.

Table 2.1: Summary Site Details

Lot/Deposited Plan (DP)	Lot 1 DP 369668, Lot 32 Section B DP 8313, and Lot 1 DP 511092
Address	42-52 Raymond Avenue, Matraville, NSW
Local Government Authority	Randwick City Council
Approximate MGA Coordinates (GDA 94 MGA 56)	E: 335728 N: 6240645
Site Zoning	IN1 General Industrial under the State Environmental Planning Policy (Port Botany) Amendment (Port Kembla) 2013
Current Use	Vacant
Previous Use	Commercial/Industrial
Site Area	Approximately 1.98 ha

2.2 Site Description

Most of the site is occupied by concrete pavement from former site buildings with unpaved strips of land along the western and southern boundaries. The western strip of the site adjoining a Sydney Water Stormwater channel is unpaved and is covered with some vegetation. The southern strip of the site adjoins a dam, is unpaved and is covered with some vegetation. Asbestos impacted soils in the former UST remediation area, in the southern half of the unpaved strip of land in the western extent of the site, and in-situ TRH impacted soils in this area were covered with a black plastic builder's film and clean imported material at the time of remediation works in 2021 (s shown on **Figure 2**).

2.3 Extent of Environmentally Impacted Material Remaining Onsite

Asbestos impacted fill, assumed to comprise both bonded and friable unless proven otherwise, is present across the whole site, beneath concrete pavement across most of the site, and beneath clean imported soil and temporary black plastic marker layer in the former UST remediation area. In addition, TRH impacted soils and TRH impacted groundwater remain in the former UST remediation area, in the southern half of the unpaved strip of land in the western extent of the site adjoining the Sydney water stormwater channel. The extent of the temporarily capped material is shown on **Figure 2**.

2.4 Summary of Identified Environmental Contamination Issues

Asbestos in soils in the ground beneath concrete pavement and/or capping and marker layer needs to be managed. Based on previous site investigation, it should be assumed that asbestos impacted fill covers the whole site. In addition, remaining TRH impacted soil and groundwater in the former UST remediation area needs to be appropriately managed. Based on the available historical data, it is assumed that asbestos in soil comprises bonded ACM however there is the potential for friable asbestos to be present and this should be assumed unless demonstrated otherwise.

2.4.1 Asbestos

Friable asbestos is defined in the Safe Work Australia *Code of Practice How to Manage and Control Asbestos in the Workplace* (SWA 2018a) as being "...material that is in a powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry, and contains asbestos".

Non-friable ACM is defined by SWA (2020) as being "...material containing asbestos that is not friable asbestos. Including materials containing asbestos fibres reinforced with a bonding compound".

Mechanical disturbance of ACM fragments and disturbance of soils may result in the release of fibres and therefore, such activities should be managed to prevent any fibres becoming airborne. Similarly the same activities can potentially give rise to release of soil particulates affected by chemical contaminants. The health effects of (specifically) asbestos are detailed in enHealth (2005) *Management of Asbestos in the Non-Occupational Environment*.

The primary issue associated with the asbestos remaining beneath the site pavement or capping and marker layer is managing the risk of inhalation of respirable fibres if the underlying asbestos impacted materials were to be disturbed. The primary issue of the potentially co-occurring chemical-based contaminants is direct contact to the impacted soils and/or potential inhalation of impacted particulates generated from the soils.

A secondary issue with the presence of the environmentally contaminated soils remaining at the site is disposal of excess spoil that may be impacted with chemical contaminants and/or asbestos in the event that excavation of impacted materials beneath the pavement and/or capping and marker layer is required.

A description of the marker layer used to identify the boundary between the capping and potentially impacted materials is provided in **Section 2.5**. Management measures to deal with these materials in the event that intrusive works are necessary prior to site redevelopment are provided in **Section 4**.

2.4.2 Total Recoverable Hydrocarbons

Other contaminants remaining on the site include TRH. Exposure to these contaminants can be via absorption through the skin, ingestion, and inhalation via dust and/or vapours. TRH remaining in soils in the former UST remediation area are mostly semi-volatile and heavier end hydrocarbons (TRH >C10-C40). The primary sources of petroleum hydrocarbon contamination (former USTs and associate infrastructure) were removed and excavation and disposal of hydrocarbon contaminated soil was undertaken to the extent practicable, significantly reducing the potential source of groundwater impact. TRH contamination remains in the former UST remediation area as mentioned in **Section 2.2** and shown on **Figure 2**.

Exposure to these contaminants can be via absorption through the skin, ingestion, and inhalation via dust and/or vapours, however, concentrations of TRH in soil validation samples collected from UST remediation excavations were below soil health screening levels for direct contact.

2.5 Site Cover Layers

2.5.1 Requirements

The requirements for any capping and marker layers are those currently in place at the site and where ground disturbance is necessary, the site surface should be re-instated as per the ground covering present prior to disturbance. For example, where removal of concrete pavement is necessary, the concrete should be re-instated following completion of intrusive works.

2.5.2 Extent of Marker Layers and Capping

Concrete pavement or a temporary marker layer and capping is present overlying the extent of the identified asbestos impacted soils, although it should be assumed that asbestos impacted fill is present across the whole site. The extent of the temporary marker and capping layers is shown on **Figure 2**.

The extent of the capped asbestos impacted soils within the western portion of the site is covered by a temporary black plastic marker layer and capping consisting of clean imported soils, which must be maintained to prevent site users, visitors and contractors, accessing the site prior to redevelopment, from being potentially exposed to the retained environmentally impacted soils prior.

Providing the relevant ground surface coverings, including marker layer and capping are maintained and control measures herein are successfully implemented in accordance with this EMP, there will be no health risks associated with asbestos or TRH impacted soils or TRH impacted groundwater remaining on the site, since there will be no direct pathways for site occupants to be exposed to the retained impacted material.

3. Application and Enforcement of EMP and Responsibilities

3.1 Application of EMP

This EMP will apply in the period prior to site redevelopment.

The requirements of this EMP are intended to apply to any routine activities within the site which could involve disturbance or exposure of retained contaminated soil beneath the capping and marker layer but not limited to:

- Underground utility installation, maintenance or removal; or
- Minor Excavations (e.g., dug, cut, piled or bored).

It is not intended that the EMP apply to major excavations, earthworks or construction activities. A specific management plan should be prepared if major works are proposed for the site.

Section 4.2 provides requirements for shallow and deep intrusive works, however, disturbance of fill should be avoided, if possible. As noted in **Section 4.2.2**, approval for deep intrusive works must be sought from the person/s with management or control of the workplace who is responsible for the enforcement of the EMP (**Section 3.3**). The person responsible for enforcement of the EMP will assess whether the works are necessary or if there is an alternative that will not result in exposure of environmentally impacted soil.

3.2 Site Owner

It is the responsibility of the Site Owner to ensure that:

- A copy of this EMP must be provided to all persons acquiring ownership of all or part of the site (Site Owners).
- A site owner must provide a copy of this EMP to any successor in Title.
- A site owner must ensure that a copy of this EMP is provided to all persons with management or control of a workplace at the site.
- A person/s with management or control of the workplace is made responsible for the implementation and maintenance of the provisions of this EMP.
- A person in a senior management position in the organisation is appointed as Site Environmental Manager and given the responsibility for ensuring the maintenance of the provisions of this EMP. The Site Environmental Manager may appoint appropriate personnel to implement the EMP day to day but will remain the responsible manager to whom the appointed personnel must report.
- Site personnel or contractors that must conduct intrusive works at the site are inducted into the EMP and are aware of their responsibilities with regard to health and safety and protection of the environment.
- A copy of this EMP is supplied to anyone conducting intrusive works on the site.
- The integrity of the marker layer and capping and/or hardstand is maintained by application of the procedures outlined in this EMP.
- The health and safety and environmental requirements specific to the contamination issues on the site, as outlined in this EMP, are complied with.
- Environmental incidents are reported in a timely manner to the appropriate statutory authorities, as necessary in accordance with legislation.

3.3 Persons with Management or Control of the Workplace

The person/s with management or control of the workplace shall be responsible for the implementation and maintenance of the provisions of this EMP.

Specifically, the persons/s with management or control of the workplace shall be responsible for:

- Ensuring the required routine inspections of the site are completed and accurate records maintained;
- Organising appropriate works in the event that unexpected breaches of the capping and/or marker layers are encountered;
- Inducting relevant personnel, contractors and visitors into the requirements of this EMP. Detailed records of personnel inducted into the conditions of this EMP shall be kept (**Appendix A**);
- Ensuring any personnel or engaged contractors undertaking intrusive works that disturb site fill are aware of their responsibilities in relation to the asbestos impacted materials known to be present and known area of TRH impacted material;
- Ensuring any disturbance to the ground surface is appropriately reinstated in accordance with the requirements of this EMP; and
- Documenting and updating records to reflect any intrusive works completed at the site (**Appendix C**).

3.4 Summary of Provisions of this EMP

The provisions of this EMP are summarised as follows:

- Site personnel or contractors required to conduct intrusive works at the site must be inducted into the EMP and must be aware of their responsibilities with regard to health and safety and protection of the environment;
- A copy of this EMP is to be supplied to all persons conducting intrusive works on the site;
- The integrity of the concrete pavement, capping and marker layers must be maintained by application of the procedures outlined in this EMP; and
- The health and safety and environmental requirements specific to the potential chemical constituent and asbestos hazards within the site as outlined in this EMP must be complied with.

4. Contaminated Soil and Asbestos Management Strategy

4.1 General

The management procedures provided in the following sections have been primarily based on control of potential hazards that occur from asbestos contaminated soils / asbestos hazards. The nature of the potential co-occurring chemical hazards is that management procedures as designed for asbestos hazards will be sufficient to control potential risks as will occur with potential co-occurring chemical hazards, namely TRH impacts in the area shown on **Figure 2**.

4.2 Potential Intrusive Works Prior to Redevelopment

The management procedures (provided in the following sections) are to be implemented during all intrusive works that may be required at the site prior to redevelopment. Major works within the site will require specific management controls.

Because it is assumed that potential asbestos impacted fill is present across the whole site, with the exception of a 0.3 m clean imported fille layer across the former UST remediation area (**Figure 2**), requirements for intrusive works will be similar across most of the site.

There are two types of intrusions that may be undertaken at the site that would require management:

- Breach of the capping layer in the former UST remediation area, comprising excavations undertaken at depths of less than approximately 0.3 m below the ground surface in the area shown on **Figure 2**; and
- Disturbance of any in-situ fill in all other areas of the site.

Because activities disturbing fill materials entail greater risk than activities that simply disturb the upper depth of capping soils, different procedures apply to shallow and deep intrusive works, as outlined in the following sections.

4.2.1 Shallow Intrusive Works – Former UST Remediation Area

These provisions for shallow intrusive works apply to works above the temporary marker layer (black plastic film) in the former UST remediation area in the western portion of the site shown on **Figure 2**.

Where shallow intrusive works are required, the following management measures will apply:

- Approval for the works must be sought from the person/s with management or control of the workplace who is responsible for the enforcement of this EMP;
- Site personnel or contractors required to conduct intrusive works at the site must be inducted into the EMP and must be aware of their responsibilities with regard to health and safety.
- A copy of this EMP is to be supplied to all persons conducting intrusive works on the site.
- Workers are not required to wear additional personal protective equipment (PPE) beyond normal site requirements for shallow intrusive works.
- Air monitoring is not required provided the environmentally impacted material beneath the temporary marker layer is not disturbed.
- The marker layer shall not be disturbed, and any capping materials disturbed should be reinstated consistent with the description in **Section 2.5.2** of this EMP. Where disturbed, the capping materials should be separately stockpiled, managed and reinstated consistent with this EMP (as applicable and appropriate).

- Any repairs to the capping overlying the temporary marker layer shall be recorded as outlined in **Section 4.9**.

4.2.2 All Other Intrusive Works

These provisions for intrusive works apply to works that will extend below the pavement, or temporary marker layer in the former UST remediation area (**Figure 2**) or in areas of the where no cap/concrete are present.

Where deep intrusive works are required, the following management measures will apply:

- Prior to any deep intrusive work commencing, approval for the works must be sought from the person/s with management or control of the workplace who is responsible for the enforcement of the EMP (**Section 3**) who will assess whether the works are necessary or if there is an alternative that will not result in exposure of environmentally impacted soil and whether the works are required to be carried out by a specialist contractor. The person/s with management or control of the workplace must also review and approve the Job Safety Risk Assessment (JSRA) and Safe Work Method Statement (SWMS) for the works and ensure that site personnel and/or contractors who will undertake the works understand the requirements of the EMP.
- Site personnel or contractors required to conduct deep intrusive works at the site must be inducted into the EMP and must be aware of their responsibilities with regard to health and safety, including those noted in **Section 4.3** following.
- A copy of this EMP is to be supplied to all persons conducting deep intrusive works on the site.
- The works area must be isolated from casual entry using temporary barriers and only personnel inducted in the requirements of the site EMP will be permitted to enter the works area.
- Sufficient space must be provided within the works area to allow stockpiling of spoil from excavations, if required, in accordance with **Section 4.5**.
- In the event that materials from under the marker layer must be excavated, a water supply must be provided to the works area for the purpose of maintaining potential environmentally impacted soil in the excavations and stockpiles in a moist state.
- Personnel entering the works area must wear appropriate PPE in accordance with **Section 4.3**.
- Decontamination procedures must be undertaken in accordance with **Section 4.3**.
- Stockpiles of excavated spoil must be managed in accordance with **Section 4.5**.
- Air monitoring to be undertaken in accordance with **Section 4.3**.
- Once the works are complete, the capping and marker layer shall be reinstated with materials of similar nature as were originally present, as described in this EMP. Where materials are imported for use in the capping layer, if required, they must be validated as suitable for the site use.
- Areas of removal of hardstand / paving must be replaced with hardstand / paving in the reinstatement of the site.
- Any repairs to the capping and/or pavement shall be recorded as outlined in **Section 4.9**.

4.2.3 Reinstatement of Capping

Following potential works as completed as per **Section 4.2.1** or **4.2.2**, there may be a requirement to supply new 'capping material' to the site to replace existing capping material as consumed by the works. Capping material is to consist of virgin excavated natural material (VENM) or excavated natural material (ENM) or pavement meeting the requirements of **Section 2.5.1** where observed to be removed during the works.

Where VENM or ENM are used, then appropriate validation assessment, inclusive sampling and analysis must be available as consistent with relevant NSW EPA guidelines or otherwise resource recovery exemptions. The person responsible for the implementation of the EMP must be provided with all relevant copies of documentation certifying the suitability of capping material.

4.3 Specific Requirements for Those Working with Asbestos Impacted Material

Asbestos-containing materials are present, and friable asbestos is potentially also present, in soil underlying the pavement. Work involving any breaches of the pavement or capping and temporary marker layer, (i.e. deep intrusive works exceeding a depth of 0.3 m) will require supervision by a Class A licensed asbestos contractor. The works will be undertaken using the procedures described in the *SWA Code of Practice How To Safely Remove Asbestos (SWA 2020)* and the following site-specific procedures:

- All site workers shall be inducted to the site and made aware of the procedures outlined in this EMP.
- Workers and visitors to the site area will be made aware of the friable asbestos contamination during site inductions and tool box meetings and only authorised people shall enter the work area, which must contain a perimeter barrier to restrict entry.
- An asbestos work area shall be defined and clearly marked.
- All personnel working within the asbestos work area shall wear P2 (or higher) class half face respirators, disposable gloves and coveralls made from materials which provide adequate protection against fibre penetration whilst completing works and whilst within the asbestos work area.
- A 10 m wide exclusion zone shall be established around the perimeter of the asbestos work area. The dimensions of the exclusion zone may be varied by the person/s with management or control of the workplace, or by the Class A licensed asbestos contractor.
- Asbestos warning signs shall be placed surrounding the asbestos work area and at entry/egress points.
- A decontamination area shall be marked out within the asbestos work area for the removal and disposal of PPE before site workers leave the asbestos work area. Personal decontamination must be undertaken each time a site worker leaves the asbestos works area and at the completion of the works. All disposable PPE shall be disposed of as asbestos waste.
- Static air monitoring at a minimum of four locations surrounding each asbestos work area and with consideration to neighbouring receptors shall be undertaken in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition* [NOHSC: 3003(2005)] for the duration of the work. The monitoring locations shall be assigned by a Licensed Asbestos Assessor (LAA).
- At the completion of the works the capping and marker layer are to be re-instated in accordance with the requirements of this EMP. The changes should be detailed in an updated register of site works as included as **Appendix C**.

4.4 Specific Requirements if Groundwater is Encountered

Contaminants present in groundwater have been assessed to not present a significant risk to human health or the environment at the site or in off-site areas unless groundwater is encountered in excavations. Due to the depth of groundwater (typically exceeding 3 metres) exposure of site users to groundwater is considered unlikely.

Groundwater should not be extracted at the site for any purpose other than groundwater monitoring. This does not apply to construction dewatering or remediation provided an activity-specific management plan (e.g. a CEMP) is prepared.

Groundwater may be encountered by workers during deep intrusive works. For such works, an activity-specific management plan, such as a CEMP, is recommended to be developed and implemented. This should include standard worker health and safety, and environmental, procedures.

If groundwater is likely to be encountered then supplementary worker health and safety, and environmental, procedures are recommended to ensure a safe work environment to:

- Minimise direct contact of groundwater with workers; and
- Prevent release of contaminated groundwater or liquids to the environment.

Characterisation (e.g. by sampling and analysis at an appropriately accredited laboratory) of the groundwater may be undertaken to assist in determination of the required supplementary procedures.

4.5 Soil Management

Any environmentally impacted soil/fill (including asbestos impacted materials and inclusive of TRH impacted area removed by excavation works) excavated during deep intrusive works must be securely stockpiled separately from the capping / marker layer material. Capping and temporary marker layer materials should also be separately stockpiled. Stockpiles must be placed on a sealed surface or on plastic sheeting to prevent cross contamination of unsealed surfaces.

Stockpiles must be placed in a secure location onsite and covered if they are to remain for more than 24 hours.

Spoil generated from on-site excavations may be re-used on-site, noting that any material excavated from below the temporary marker layer must be re-used below the temporary marker layer. Capping material cross contaminated with soil from below the marker layer must be re-used below the marker layer.

Alternatively, excavated environmentally impacted soils / materials shall be disposed off-site following appropriate waste classification in accordance with **Section 4.7**.

4.6 Dust Management

During any deep intrusive works that will penetrate the marker layer, excavations and stockpiles of spoil should be kept damp to prevent the generation of dust from these sources. Care should be taken to not over-wet excavations and/or stockpiles such that excess runoff is generated.

4.7 Off-Site Disposal and Waste Management

If any material is to be excavated for off-site disposal it should be classified in accordance with EPA waste classification guidelines (NSW EPA 2014¹) or guidelines that may be in force at that time. Waste must be managed in accordance with the provisions of the *Protection of the Environment Operations (Waste) Regulation 2014* or successor instruments.

¹ Waste Classification Guidelines, Part 1: Classifying Waste, NSW Environment Protection Authority, November 2014 (EPA 2014)

4.8 Unexpected Finds Protocol

The possibility exists for hazards other than those identified and expected based on previous investigations, to be present at the site. Environmental sampling is based on chemical analytes identified as a potential concern during a documented process of reviewing historical site activities. However, ground conditions between sampling points may vary, and further hazards may arise from unexpected sources and/or in unexpected locations. The nature of any additional hazards which may be present at the site are generally indicated through visual or olfactory means, for example:

- Drums or underground tanks;
- Chemical bottles; and/or
- Malodorous or unusual coloured soils.

As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned indications of potential contamination (or any other indications of the presence of potentially hazardous substances) be observed, the procedure summarised in the Flowchart provided in **Appendix D** is to be followed.

The sampling strategy for each 'unexpected find' shall be designed by a suitably qualified environmental consultant, in accordance with guidelines made or endorsed by EPA. The strategy will, however, be aimed at determining the nature of the substance – that is, if it is hazardous and, if so, is it present at concentrations which pose an unacceptable risk to human health or the environment.

4.9 Emergency Preparedness and Response

The following procedure will be followed in the event that the capping and marker layer are breached unintentionally such that the underlying environmentally impacted soil is exposed:

- Stop the activity or process that has exposed the impacted soil;
- Assess the hazards associated with the exposure of the impacted material and implement appropriate procedures to address the hazards;
- Repair the capping and temporary marker layers such that the impacted soil is once again isolated beneath the capping and temporary marker layer;
- Collect and secure any impacted soil that may remain exposed and stockpile securely so that it is protected from casual access;
- Review the activity or process that led to the exposure of the impacted soil and revise procedures or actions accordingly to prevent a reoccurrence;
- Complete an environmental incident/corrective action report in accordance with the current quality procedure; and
- Review and revise the EMP to reflect any changes that have to be made to prevent a reoccurrence.

In the event of an emergency, then the following persons / organisations shall be available to provide assistance.

Table 4.1: Emergency Contacts

Person	Organisation	Role	Contact Details
Alana Garrick	Hale Capital Partners	Development Manager	0400 071 707

4.10 Inspections

Routine inspection of the capping integrity and exposed ground surface shall be conducted at the following times prior to redevelopment of the site (**Table 4.2**).

Table 4.2: Capping Inspections

Inspection Time	Inspection Frequency
Following an accidental breach/penetration of the capping or marker layer	Following incident
Following break / repair of capping and/or pavement underlying rail lines	Upon completion
Routine inspection of capping and exposed soils across site	Half-yearly

Records of the inspection shall be retained for a minimum period of four years (**Appendix C**).

5. Health and Safety Management

It is the responsibility of persons with management or control of workplaces at the site to ensure that comprehensive health and safety programmes that comply with the requirements of the WHS Regulation and are appropriate for the activities undertaken at the site are implemented. Given the presence of asbestos at the site, additional protocols and procedures that address the specific hazards posed by the asbestos must be included in the overall health and safety plans implemented.

The only significant exposure pathway that can lead to health effects from asbestos fibres is inhalation of respirable fibres. Consequently, workers who may be exposed to dust that has the potential to contain asbestos fibres must wear appropriate respiratory protection. Furthermore, measures must be taken to ensure that dust or other material that may contain asbestos fibres is not carried out of the work area to areas where breathing protection would not ordinarily be considered a requirement.

Potential risks to other co-occurring contaminants can be similarly managed by precluding the potential exposure of the impacted materials or direct contact to the impacted soils otherwise. The measures as implemented to control potential asbestos hazards will be similarly effective to control risks from other chemical contaminants as may potentially be present.

With regard to the site, there is a risk that fill at the site may release asbestos fibres if disturbed. Consequently, in areas where intrusive works are expected to disturb asbestos impacted fill, work should be supervised by a person holding a Class A licence who should prepare Job Safety Risk Assessments (JSRA) and Safe Work Method Statements (SWMS) relating to the potential for asbestos to be present. The JSRA and SWMS should be submitted to the Responsible Person, who should ensure that the intrusive works are carried out in accordance with the JSRAs and SWMS and requirements identified in **Sections 3 and 4** of this EMP.

6. Revision of the EMP

It may, from time to time, be necessary to revise this EMP to reflect changes to legislation, changes on site and/or improvements in technologies or knowledge.

Revision of the EMP should be undertaken by an appropriately qualified and experienced environmental consultant or Occupational Hygienist. Copies of the revised EMP should be distributed to the current site owners, person/s with management or control of the workplace and regular site workers for on-going implementation.

7. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

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Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.


Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Figures



Legend
 Approximate Site Boundary



Job No: 60654


Client: Hale Capital Partners

Version: R01 Rev A Date 8/12/2021

Drawn By: RH Checked By: JDM

Scale 1:13,000



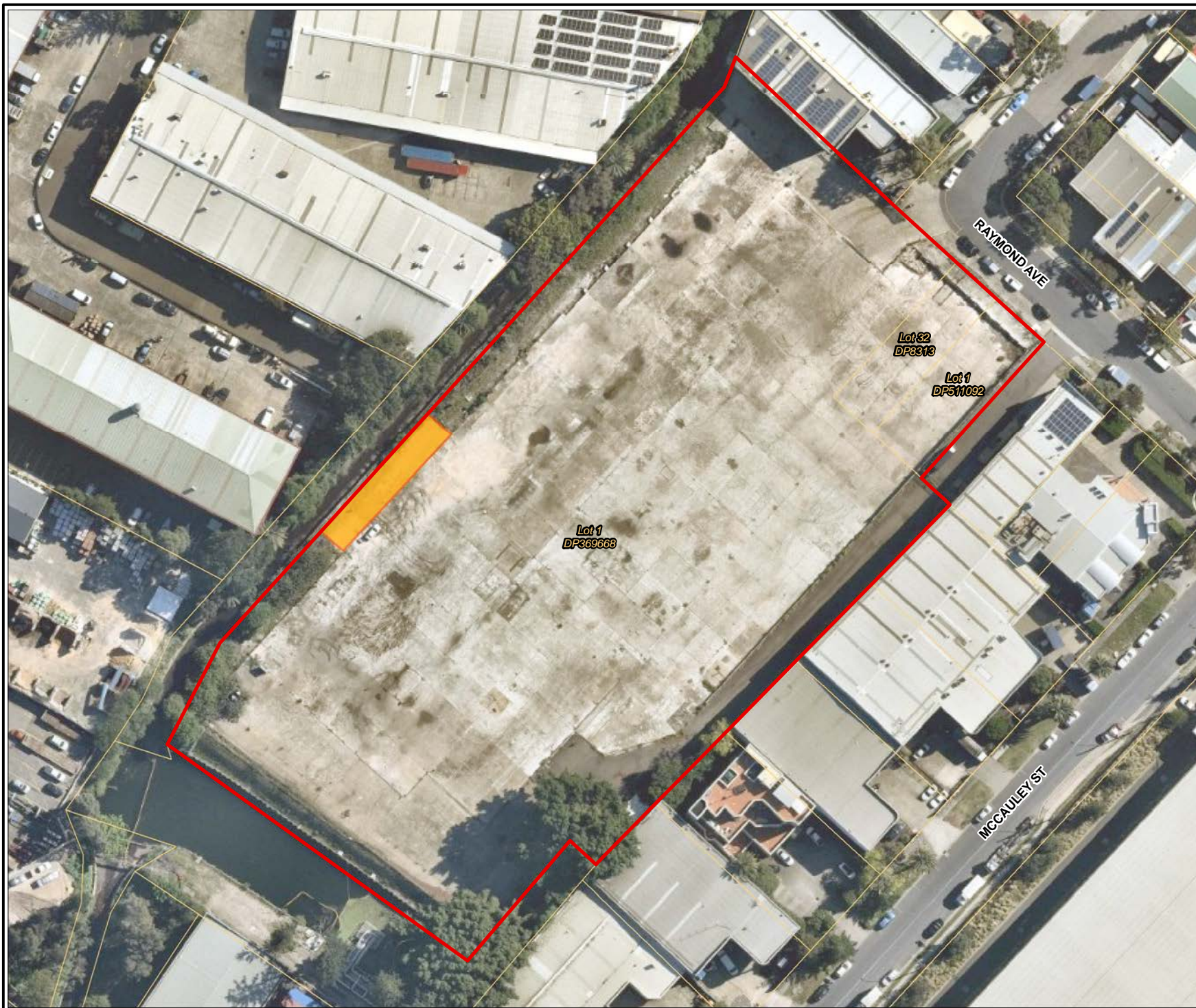
0 160 320

 metres

Coord. Sys. GDA 1994 MGA Zone 56

**42-52 Raymond Ave
 Matraville, NSW**

SITE LOCATION

FIGURE 1



Legend

- ▬ Approximate Site Boundary
- ▬ NSW Cadastre (DFSI, 2021)
- ▬ Former UST Remediation Area - Temporary Capping of Marker Layer



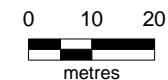
Job No: 60654

Client: Hale Capital Partners

Version: R01 Rev A Date 15/12/2021

Drawn By: RH Checked By: JDM

Scale 1:1,200



Coord. Sys. GDA 1994 MGA Zone 56

**42-52 Raymond Ave
Matraville, NSW**

SITE LAYOUT

FIGURE 2

Appendix A EMP Record of Induction Form

Date	Name	Signature

Date	Name	Signature

Appendix B Capping Reinspection Register

DATE	AREA INSPECTED	COMMENTS	INSPECTING COMPANY AND PERSONNEL DETAILS	SITE EMP MANAGER SIGNATURE

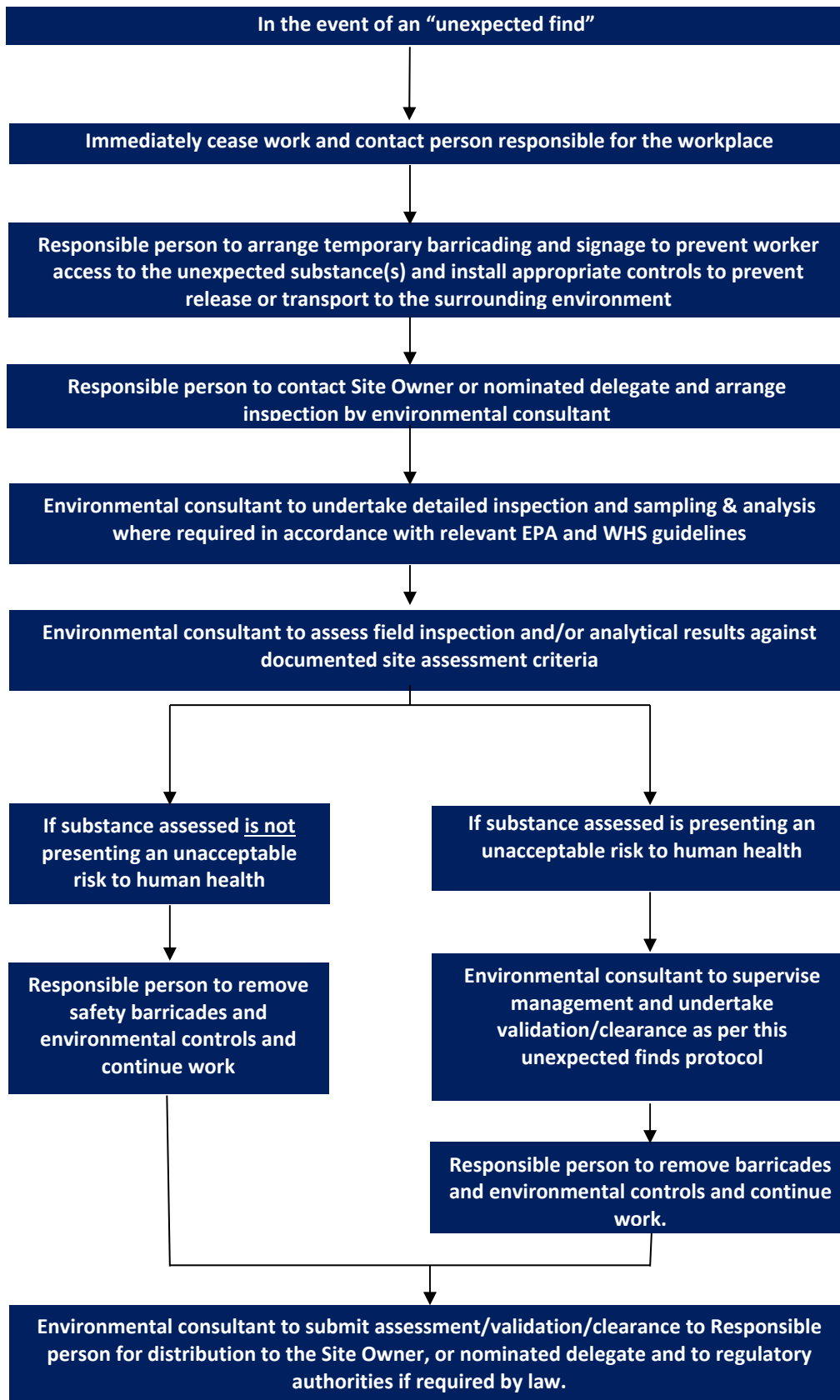
DATE	AREA INSPECTED	COMMENTS	INSPECTING COMPANY AND PERSONNEL DETAILS	SITE EMP MANAGER SIGNATURE

Appendix C Asbestos Related Works Record

DATE	LOCATION OF WORKS	WORKS COMPLETED	ASBESTOS RELATED WORKS COMPLETED BY	CLEARANCE INSPECTION AND CERTIFICATE ISSUED?	ISSUER OF CLEARANCE CERTIFICATE	SITE EMP MANAGER SIGNATURE

DATE	LOCATION OF WORKS	WORKS COMPLETED	ASBESTOS RELATED WORKS COMPLETED BY	CLEARANCE INSPECTION AND CERTIFICATE ISSUED?	ISSUER OF CLEARANCE CERTIFICATE	SITE EMP MANAGER SIGNATURE

Appendix D Unexpected Finds Protocol




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Document Status

Rev No.	Author	Reviewer	Approved for Issue		
		Name	Name	Signature	Date
A	John De Martin	Greg Dasey	Draft for client review	Draft for client review	10 December 2021
B	John De Martin	Greg Dasey	Greg Dasey		15 December 2021

