



# Construction Management Plan

## Sample Preparation Facility and Emissions Baghouse - CMP

### **Britannia Refined Metals Ltd.**

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Prepared by:

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|          | Click to enter a date. |             |            |               |
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## Document References

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| REPORTS:  |                                                                       |



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|  | Flood Risk Assessment 23 July 2024                                 |
|  | Air Emissions Risk Assessment 21 May 2024                          |
|  | Phase One Geotechnical and Environmental Desk Study 11 August 2023 |
|  | Phase 2 Ground Investigation Report 19 October 2023                |
|  | Planning Supporting Statement 19 February 2024                     |
|  | Environmental Policy Statement January 2024                        |
|  | Traffic Management Plan 11 June 2024                               |
|  | Email from then agent received 26 April 2024                       |
|  | Emergency Response Plan                                            |



## 1.0 Introduction

Planning Permission Ref.20240234 for the '*Erection of emissions management building consisting of a baghouse and stack*' was granted by Gravesham Borough Council (GBC) on the 27<sup>th</sup> September 2024 and was subject to 12 conditions.

Condition 4 states:

*No development approved by this planning permission shall commence until a construction management plan has been submitted to, and approved in writing by, the Local Planning Authority.*

*The document will address the following requirements:*

- a) The applicant should ensure the control of nuisances during construction works to preserve the amenity of the area and avoid nuisances to neighbours and to this effect:*
- b) No waste materials should be burnt on the site, instead being removed by licensed waste contractors;*
- c) Prior to the commencement of works a Dust Management Plan shall be submitted for approval. Work shall be undertaken in accordance with the approved plan which should make reference to current guidance on the 'Assessment of Dust from Demolition and Construction' (IAQM) or an acceptable equivalent. This must include asbestos investigation and handling.*
- d) Consideration should be taken to restricting the duration of noisy activities and in locating them away from the periphery of the site (this is notwithstanding any Prior Consent that exists for the site under section 61 of the Control of Pollution Act 1974).*
- e) A Construction Site Workers Risk Assessment to address working with potentially contaminated soils.*
- f) Hours of works: works should only be undertaken between 0800 hours and 1800 hours on weekdays; between 0800 hours and 1300 hours on Saturdays and not at any time on Sundays and Public Holidays (this is notwithstanding any Prior Consent that exists for the site under section 61 of the Control of Pollution Act 1974).*

*The development shall be implemented in accordance with the approved construction management plan.*

This document presents a Construction Management Plan (CMP) for the BRM Sampling Preparation Facility, including the Emissions Management Building, to discharge Condition 4 of planning permission Ref. 2204023).

The CMP will form part of the site induction which is mandatory for all employees, contractors and visitors attending the Site. All employees and contractors shall familiarise themselves with the contents of the CMP.

### 1.1 General

This CMP has been produced to ensure that the construction phase of the Sampling Preparation Facility and Emissions Management Facility is executed efficiently, safely, and within the established guidelines, including relevant planning and permitting regulatory requirements. It serves as a comprehensive document that outlines how the project construction phase will be managed from start to finish. Deviation from the plans set out within this document will require approval by BRM and, Gravesham Borough Council (GBC) if deviating from the planning conditions.

The development shall be implemented in accordance with the approved CMP, to ensure that the development does not contribute to, or is not put at unacceptable risk from, or



adversely affected by, unacceptable levels of ground contamination in line with Policy CS19 of the Gravesham Local Plan Core Strategy (2014).



## 2.0 Background

### 2.1 Site Description

The Britannia Refined Metals site, outlined in blue in **Figure 1**, is situated to the south of the River Thames and to the north of Northfleet.

**Figure 1: Site Location & Surrounding Area**



To the west of the Site lies undeveloped marshland protected by an SSSI designation. To the southwest, the Site is bound by industrial warehouses within the Northfleet Industrial Park; other neighbouring companies include sheet metal solutions; the London Bus Company; B & W Products; and Brett Aggregates & Brett Concrete.

The Site is accessed via Manor Way, which provides access to BRM and neighbouring industrial areas to the north. Manor Way, in turn, connects to Lower Road to the south, which then joins to the A226 which provides access to the wider national road network.

The area northeast of Manor Road is the working BRM metals recovery site, whilst the southwest includes an area of green space which is part of the wider Swanscombe Peninsula SSSI and under the ownership of the applicant.

Nearby settlements include Swanscombe (1.2km south) and Greenhithe (2.2km southeast). The A2 runs east to west at an approximate distance of 3km (south) connecting to the M25 (west).

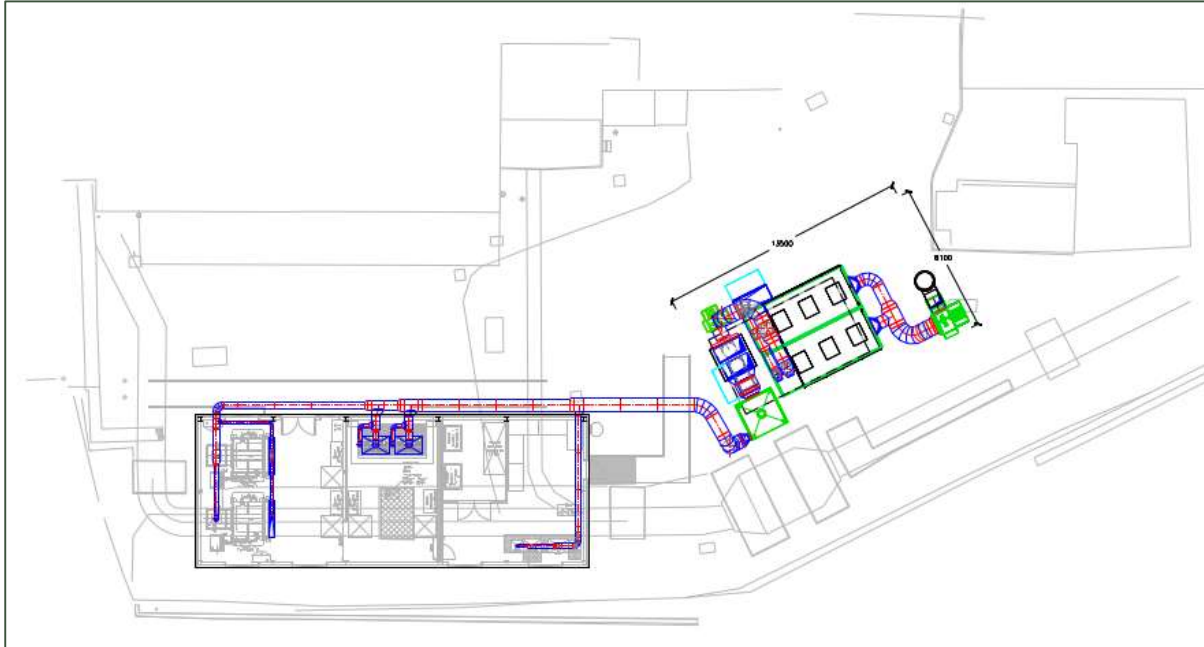
### 2.2 The Development

The development as shown in **Figures 2 & 3** below would comprise a single storey Sample Preparation Building, with a footprint of 176m<sup>2</sup> and a height of 10.1m and an emissions management building which consists of a baghouse and a 20 m stack. The footprint of the

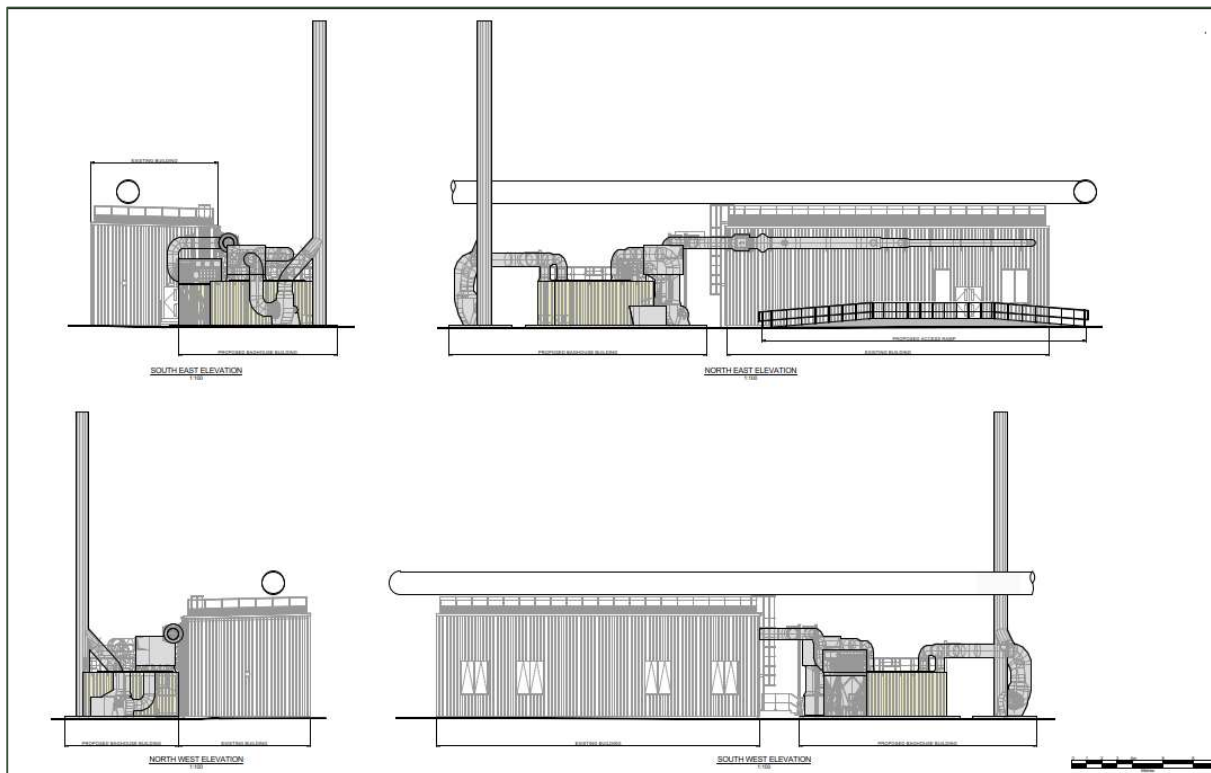


emissions management building would be 13.5m long by 8.1m wide, giving an area of 109m<sup>2</sup>, excluding the vent which will link the emissions management building to the Sample Preparation Building.

**Figure 2: Sample Preparation Building and Baghouse - aerial view**



**Figure 3: Proposed Elevations**



## 2.3 Process Description

The BRM Sample Preparation Building will accommodate 4 furnaces and grinding/milling equipment associated with the furnaces to prepare the e-scrap samples for analysis via a third-party laboratory. The process emissions from the furnaces and equipment will need to be extracted via a ventilation system to an abatement unit, which is the emissions management building being applied for now. The abatement unit will include common dust extraction, high capacity dust pre-filters and a deep bed absorption unit that uses activated carbon to provide treatment of emissions prior to release via a dispersion stack. A 750 mm duct would link the Sample Preparation Building to the Emissions Management Building.

Additional ancillary structures are also required to support the operating of the Sample Preparation process such as a continuous emissions monitoring system (CEMS).

## 2.4 Description of Works

The following summary of works constitute a preliminary description and will be further detailed by the Project Manager and Principal Contractor and formalised in the Programme of Works:

### 2.4.1 Civil, Structural and Building

- Site Clearance and setting up of Contractor Compound. Construction access & parking arrangements,
- Excavation to form foundations and construction levels,
- Piles installed for Sample Prep Building and Emissions Management Building foundations,
- Import and installation of granular material, membranes and concrete to form the substructure,
- Installation of underground drainage & services as required to serve the proposed development,
- Import and installation of construction materials to raise the super structure,
- Building structure, including columns, beams, roofing, insulation, cladding, block work, flooring, painting and finishing
- Trimming to final levels and making good any surrounding surfaces,
- Site clearance and removal of any temporary items (Contractors Compound, fencing etc...)

### 2.4.2 Equipment Installation

- Installation of 2-off roasting ovens and associated electrical/control system (by CDS Contractor)
- Installation of 2-off induction ovens and associated electrical/control system (by Interpower Contractor)
- Installation of communiton equipment such as crusher, mill and sample dividers (by BRM)



- Installation of abatement / extraction system such as baghouse with filters, absorption unit with activated carbon, LEV ducting, stack and associated control system (by Exeon)
- Continuous emission monitoring system (CEMS) by Envea

### **2.4.3 M&E / Utility Services Installation**

- Natural gas supply (by Lindfield / Apollo)
- Water supply (by Lindfield / Apollo)
- Power supply (by Lindfield / Apollo)
- Compressed air supply (by Lindfield / Apollo)

## **2.5 Emergency Contact**

The 24-hour emergency contact will be:

Mr Nick Haskell

Britannia Refined Metals Ltd

Email: Nick.Haskell@glencore.co.uk

Tel: +44 (0) 7703717163

The Principal Contractor shall display this number on a prominent sign board at the entrance to the site. As the project mobilises a Site Manager will be appointed, and the sign board updated with the mobile phone number.

## **2.6 Communication of CMP**

The CMP will be accessible for all staff and visitors to read in the site office. Information on the construction project will be available to local residents and businesses by way of signage. They will be able to view the CMP should they want to.

## **3.0 Responsibilities**

### **3.1 Responsibility with respect to Health & Safety**

The construction works shall be undertaken in accordance with primary health and safety legislation, namely:

- Health and Safety at Work Act 1974; and
- Construction (Design and Management) (CDM) Regulations 2015.

In addition, the project should be undertaken in accordance with any other relevant secondary legislation such as the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER),

- The Work at Height Regulations 2005



- Control of Substances Hazardous to Health Regulations 2002,
- Control of Noise at Work Regulations 2005,
- Control of Working at Heights Regulations 2005,
- Electricity at Work Regulations 1989,
- Provision and Use of Work Regulations 1998 and associated Approved Code of Practice (ACOP) L22,

The construction works for the development will fall under the CDM Regulations 2015. As such, the Principal Contractor will provide a Construction Phase (Health & Safety) Plan in accordance with the CDM Regulations. This plan shall include (but not be limited to) a construction programme, emergency procedures, site layouts and fire plans, method statements and details of the proposed induction programme. This induction programme will include the Principal Contractor's site-specific rules and will include instructions to all staff regarding all relevant procedures.

An induction will be required for all workers (permanent / temporary / contractor / subcontractor), site visitors, client representatives or other 3rd parties. Inductions shall be documented.

Plant operators and construction staff will be trained by the Principal Contractor with regard to spill prevention/mitigation measures and procedures and in the use of relevant mitigation material (e.g. spill kits).

The Principal Contractor will manage and coordinate all the site construction works set in this CMP. The Principal Contractor together with others appointed by the Client shall attend the monthly management meetings chaired by the Project Manager to review progress and other matters relating to the execution of the construction phase and overall project delivery. The Principal Contractor will prepare a written report for these monthly meetings and issue to the Project Manager not less than 2 working days prior to the meeting.

In addition to the above, the following meetings shall be held during the construction phase:

- Weekly programme coordination meetings to discuss health and safety, interfaces, sequence of works, contractors on site, deliveries and general programme update
- Daily site briefing to discuss ongoing works, health and safety / tool box talks.
- Safety tours.

### **3.1.1 The Project Manager**

SLR Consulting Ltd

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Bristol,  
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Tel: +44 (0) 7929 106341



### 3.1.2 The Principal Contractor

Apollo Civil Engineering Ltd

2nd Floor  
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London  
E1 6RA

Nick Brown  
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Tel: +44 (0) 7969326728

### 3.1.3 The Client

Britannia Refined Metals Ltd

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Kent,  
DA11 9BG

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Tel: +44 (0) 7703717163

## 3.2 Responsibilities with Respect to Environmental Monitoring

### 3.2.1 Statutory Environmental Designations

Although the application site and wider BRM site are not subject to any statutory designations, the Swanscombe Peninsula Site of Special Scientific Interest (SSSI) is situated directly to the west of the BRM site, as shown on **Figure 4** below.

Within 5km of the Site, there are 8 SSSIs, these include:

- Gray's Thurrock Chalk Pit SSSI – approximately 2.7km north
- Globe Pit SSSI – approximately 2.6km northeast
- Hangman's Wood and Deneholes SSSI – approximately 3.8km northeast
- South Thames Estuary SSSI – approximately 5.9km east
- Darenth Wood SSSI – approximately 3.8km southwest
- Swanscombe Skull Site SSSI – approximately 1.4km southwest
- West Thurrock Lagoon and Marches SSSI – approximately 2.7km northwest
- Purfleet Chalk Pits SSSI – approximately 5.4km northeast
- Lion Pit SSSI – approximately 2.6km northeast

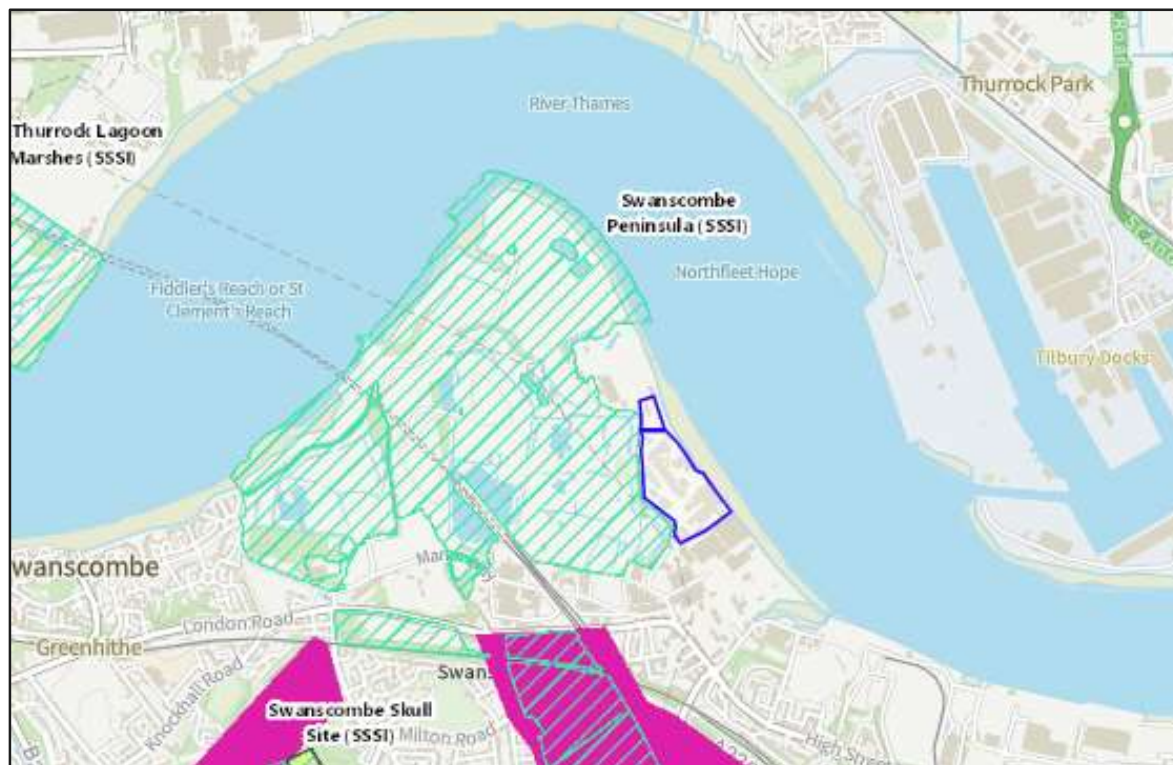
There are no Local Nature Reserves (LNR) located within a 5km radius of the Site, however, there is the Swanscombe Skull National Nature Reserve situated approximately 1.4km to the southwest of the Site.



There are no Ramsar Sites located within a 5km radius of the Site, however the Thames Estuary and Marshes Ramsar is located approximately 6.1km to the east. There are no Special Protection Areas (SPA) within the 5km study radius of the Site, nor are there any Special Areas of Conservation (SAC). The closest SPA is the Thames Estuary and Marshes SPA which is situated approximately 6.1km to the east of the site.

There are no Ancient and Semi-Natural Woodlands located near to the Site, nor is the Site situated within one of the designated buffer zones. The nearest area of ancient woodland is situated 3km away from the site.

**Figure 4: Statutory Designations**



### 3.2.2 Archaeology and Cultural Heritage

Figure 5 below presents the location of heritage assets in relation to the Site. Within a 5km radius of the Site there are

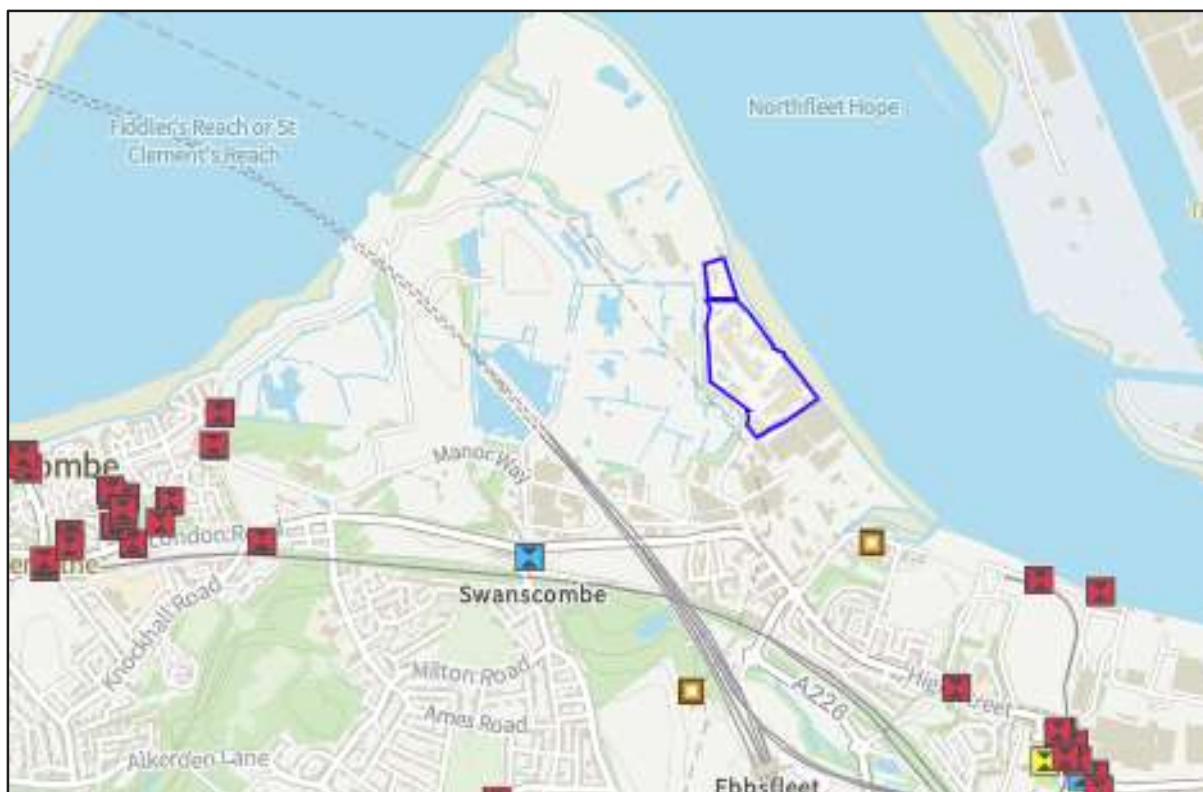
- 2 Grade I Listed buildings
- 50 + Grade II Listed buildings and 17 Grade II\* Listed buildings.

There are two scheduled monuments within 1km of the site (shown as gold squares):

- Aspin's Kiln, ref. 1004227 – approximately 0.5km to the southeast from the site's southeastern boarder
- Palaeolithic Sites near Baker's Hole, ref 1003557 – approximately 0.7km to the south of the site



**Figure 5: Location of Heritage Assets**



### **3.2.3 Air Quality**

The Site is entirely located within the Northfleet Industrial Area AQMA, which was declared in January 2002 due to Particulate Matter. There are 10 AQMAs within 5 km of the Site.

### **3.2.4 Water Environment**

The Site lies within a Flood Zone Level 3, meaning that the area has a 1% or greater probability of flooding from rivers or 0.5% or greater probability of flooding from sea.

There are plans to increase the height of the seawall to the east of the Site in the future (Thames Estuary TE2100 Plan), this would potentially benefit the Site and decrease the risks of flooding.



### **3.2.5 Consultants appointed to oversee Environmental Monitoring**

#### Air Quality:

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#### Flood Risk:

SLR Consulting Ltd

Mr Chris Middleton

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Tel: +44 (0) 78909 71494

#### Land Contamination:

SLR Consulting Ltd

Mr James Appleby

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## **4.0 Construction Phase**

### **4.1 Construction Method**

The construction works are expected to begin once pre commencement planning conditions are discharged, and the Principal Contractor will devise a Gantt chart to reflect this which will set out the detailed construction phasing.

### **4.2 Transport Access and Management**

Construction traffic will access the site mainly through the existing site entrance gates off Manor Way.

As the construction of the development would not generate high levels of staff or operational traffic, or require additional parking spaces, the application is in accordance with Policy CS11.

HGV and visitor traffic shall be carefully planned and strictly adhere to the site rules in terms of dust, noise and working hours to minimise public disturbance.

Traffic Management will be in accordance with the following:

- To be managed by banksman while entering/leaving site.
- Vehicles to be accommodated onsite until charged/discharged, then loads moved by suitable construction plant such as cranes or forklifts.
- Designated storage areas will be formed.
- Whenever possible, logistics will be developed to avoid articulated vehicle traffic to site.
- Vehicles to be cleaned before leaving site (Mains water supply to be available from commencement of works).
- Wheel wash will be available at the site exit in a suitable location water will be contained through the use of a bund and tank. To be regularly emptied.
- Road sweeper will be commissioned at reasonable demand of the Local Highway Authority.
- Any damage resulting of the works to the public highway to be repaired at no cost and in a timely manner by the Principal Contractor.

### **4.3 On Site Construction Works**

#### **4.3.1 Civil, Structural and Building**

##### **Site Set-up**

Following mobilisation, the Site can be fully established within two weeks. In addition to setting up the compound and site offices, Site staff induction will take place, into the unique working environment of the BRM site. A complete utilities survey of the Site will take place, including trial holes and the temporary supporting tower for the ducting system will be constructed.

Prior to the commencement of intrusive excavation works a MCERTS certified ES642 dust monitor has been set up by ES Monitoring Ltd on the boundary of the construction area. Data is being captured in 'real time' and summary reports issued to BRM monthly for discussion and review.



## **Site Clearance and Pile Mat**

Site clearance will require breaking the existing concrete slab, undertaking general site clearance and installing the piling mat. The piling mat will be made from recycled aggregate placed on a geotextile layer. Precise details will be developed within the temporary design completed and approved during the mobilisation phase. A blinding layer will be placed over the imported aggregate to keep the site clean and protect the imported aggregate from being contaminated by the spoil resulting from the piling operation.

## **Piling, Drainage and Earthworks**

Following the Site clearance, a seven-week period has been planned for undertaking drilling and casting the piles, excavating the site to the required level and placing the foundation layers of stone and blinding. New catchpits will be built and new foul and storm water pipes will be laid and connected into the existing system. By the end of this period, the construction will be at ground level in all areas and will have not more need for below ground excavations.

## **Casting Concrete Floor Slab**

All floor level concrete pours will be undertaken over the same three-week period including the building floor slab, the new bag house slab and the surrounding pavement pours. There will be an overlap with the above activity as we will be able to install the new drainage system while the slab reinforcement and form work is being placed. The actual concrete pours will be focused on a single week which will be carefully planned to ensure we achieve the outputs required on each day with clear contingency planning for delays in delivery.

## **Erect Structure**

The structure will be erected over approximately 5 weeks. This will include fixing the columns into the piles, erecting the columns and beams, casting the roof slab and installing the cladding, windows and doors.

## **External Works**

An allowance of two weeks to undertake the finishing external works on the site such as fixing the Key-Klamp rails, attaching the ladder to the building and installing the new Armco barrier. These works have significant float as they can be carried out while the internal works to the building are being completed and before we finally clear the site.

## **Clear Site**

An allowance of one week has been made to clear the site. This period will include the removal of all temporary fencing, compound and temporary signage. We will ensure during this time there is a comprehensive handover of the building to the site team including the provision of an O&M manual.

### **4.3.2 Equipment Installation**

Equipment installation to include ovens (4-off), communiton (crusher, mill and sampling divider), extraction equipment (full abatement system to include dust filter, carbon beds, extraction ducting, stack and control system) and CEMS system will be done by the appointed contractors, and under full coordination by the Principal Contractor and The Project Manager to ensure the health and safety and other site requirements set in this CMP are followed and implemented by the various contractors. The programme allows for approx. six months for the full installation of all equipment, including testing and commissioning.



### **4.3.3 M&E / Utility Services Installation**

The appointed M&E contractor (Lindfield) by the Principal Contractor will complete all the M&E and utility services as specified based on approved specification and drawings by the Client. This will include the interface points to existing utility services at BRM site.

The installation scope of the utility services will include:

- Installation of natural gas supply to the building and distribution to roasting ovens and induction area.
- Installation of water supply for induction ovens' cooling system
- Installation of compressed air system for extraction and CEMS systems
- Installation of HV works and LV panel and distribution
- Installation of power and control cabling, including containment trays
- Installation of fire alarm and detection system
- Installation of security and data system

## **4.4 Welfare Facilities and Services**

Welfare facilities will be provided for the duration of the construction period in accordance with the CDM Regulations 2015 (or any future variation thereto), due to the BRM site policies in place for the protection of contractors to the potential for lead exposure, all contractors will be required to use the existing BRM welfare facilities.

## **4.5 Housekeeping**

A good housekeeping policy will be established across the development site and will include:

- No fires on site, including the burning of waste during any demolition or construction phase, which is explicitly prohibited.
- Considerate behaviour of all contractor staff on and off site (i.e. on the local highway).
- Maintenance of staff welfare facilities, storage areas and waste segregation areas.
- Removal of waste and other rubbish from site at frequent intervals.
- Maintenance of road cleanliness and preventing mud on the surrounding highway.



## 5.0 Hours of Construction Working

The proposed construction hours of working are as follows:

- Monday to Friday 08:00 – 18:00 hours; and
- Saturdays 08:00 – 13:00; and
- there would be no working on Sundays or bank holidays.

Access to the Site or any machinery/plant operation outside of the above construction hours would not be permitted without the prior written agreement of the Project Manager and granted approval of the Gravesham Borough Council as Local Planning Authority.

## 6.0 General Construction Good Practice

### 6.1 Construction Site Workers Risk Assessment

Part e) of Condition 4 requests that the CMP includes a Construction Site Workers Risk Assessment to address working with potentially contaminated soils. The attached Construction Phase Health and Safety Plan has been prepared by the Principal Contractor and includes all information, arrangements for welfare and related items for the health and safety of staff working on the project.

As a result of the Phase II Ground Investigation Report findings, all excavations will be treated as contaminated and as such all waste transfer notices will be supplied by the Principal Contractor to the applicant, in accordance with asbestos regulations.

All site workers will be protected from asbestos dust through the use of PPE (suits, respirators and eye protection, sealing the site with plastic sheeting and wetting the site, to prevent dust becoming airborne.

The Principal Contractor confirmed that other protection measures will include the following, to protect the workforce:

- Minimising the need to break ground wherever possible through localised excavations and the use of piled foundations;
- Having the works areas fully segregated from the rest of the BRM site during excavations to prevent unauthorised access to the groundworks;
- Providing dust monitoring stations erected prior to the groundworks with results continually monitored and report;
- Ensuring all workers are given a full site induction which includes details of the potential of working with hazardous materials;
- Ensuring all workers wear total headcovers with filtered air flow units, gloves and full-length arm and leg during excavations works;
- Ensuring all workers wear cleaned overalls each day;
- Ensuring damping techniques are used during all excavation works;
- Ensuring all excavation plant is washed at the end of each shift; and
- Having individuals on site who are experienced and have received specific training on identifying traces of hazardous materials, including asbestos on site during all excavations.

The Principal Contractor will appoint a specialist waste company to manage the removal of all soils in accordance with the relevant regulations, to a licensed facility. The waste company will ensure that the waste soils carried are as per the waste transfer ticket,



sheeting all loads and cleaning their wagons following transportation. The information provided above confirms that the Principal Contractor will, in accordance with the requirements of Condition 5, employ adequate and suitable measures for the minimisation of asbestos fibres during the groundworks stage, so as to prevent airborne fibres from affecting workers carrying out the work, and nearby properties. The Principal Contractor has also selected an appropriate waste haulier for transporting hazardous materials and a Waste Company to receive and treat the waste soils.

## 6.2 Site Establishment

Facilities will be established to minimise risk to the environment and promote efficient use of resources. These measures will be in accordance with the Principal Contractor's Construction Phase Health and Safety Plan and this CMP and other operational site requirements, including:

- Use of protective fencing to separate working areas, site boundaries and protect sensitive features/receptors from disturbance.
- Temporary storage compound, welfare facilities and secure storage of equipment.
- Hazardous substances, including fuel and oil, will be stored in accordance with the Control of Pollution (Oil Storage) (England) Regulations 2001 (and any subsequent variation thereto).
- Refuelling and use of such hazardous substances will only be within designated areas, designed to contain run-off and only undertaken by trained personnel.
- Materials storage areas will be established, managed and maintained throughout the construction process.
- Any temporary compounds or storage areas will be removed from site following completion of the works.
- Waste segregation areas will be established utilising containers of an appropriate design to ensure they are fit for purpose and no waste can escape.
- Temporary lighting will be designed to minimise light spillage and orientated inwards to minimise light pollution.
- Establish proper procedures for keeping the highway clean and tidy (e.g. wheel cleaners, road sweepers) guaranteeing a safe environment for workers and the public.

## 6.3 Boundary Fencing

The site boundary will be enclosed with fencing for security and to prevent construction wastes from polluting the wider environment.

Appropriate signage for the construction compound, directing vehicles and pedestrians, and warning notices will be erected where necessary.

## 6.4 Dust Control and Management

Excessive airborne dust may result during import of materials and earthworks or other programmed works. Consequently, ES Monitoring Limited have been appointed to undertake dust monitoring during site works.

A hoarding will be built around the construction area, to contain airborne dust from site preparation works and construction. A MCERTS certified ES642 dust monitor has been



installed on the hoarding that surrounds the construction area and the equipment was calibrated prior to on-site installation. If the monitoring confirms that the dust has reached a 'trigger level', daily checks will be made to identify the source of the dust and the measures required to bring the dust back to below trigger levels.

Following the available guidance, including:

- The Greater London Authority (GLA) Supplementary Planning Guidance (SPG) on the Control of Dust and Emissions During Construction and Demolition (2014)
- The Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction
- The Institute of Air Quality Management (IAQM) Guidance on Monitoring in the Vicinity of Demolition and Construction Sites

a trigger level has been set as set out below:

#### Dust Trigger Levels:

|     | Receiver of Alert         | Trigger level and integration period |
|-----|---------------------------|--------------------------------------|
| RED | steve@nick-brownltd.co.uk | 150 ug/m3 1 hour.                    |

Source: ES Monitoring Limited Dust Monitoring Report Project Ref. 20683 04 March 2024 to 31<sup>st</sup> March 2024

No exceedances of the trigger level have been recorded during site working hours. Copies of the Dust Monitoring Reports are available upon request.

#### 6.4.1 Dust from asbestos

The Phase 2 Ground Investigation Report (19 October 2023) confirmed that the sample of Made Ground recovered from BH01 at 0.5m bgl was identified as containing asbestos that was found to be in the form of fibre bundles and ACM debris of Chrysotile (white asbestos).

As a result of the findings, all excavations will be treated as contaminated and site workers will be protected from asbestos dust through the use of PPE (suits, respirators and eye protection, sealing the site with plastic sheeting and wetting the site, to prevent dust becoming airborne.

Additional protection measures will include the following:

- Minimising the need to break ground wherever possible through localised excavations and the use of piled foundations;
- Having the works areas fully segregated from the rest of the BRM site during excavations to prevent unauthorised access to the groundworks;
- Providing dust monitoring stations erected prior to the groundworks with results continually monitored and report;
- Ensuring all workers are given a full site induction which includes details of the potential of working with hazardous materials;
- Ensuring all workers wear total headcovers with filtered air flow units, gloves and full-length arm and leg during excavations works;



- Ensuring all workers wear cleaned overalls each day;
- Ensuring damping techniques are used during all excavation works;
- Ensuring all excavation plant is washed at the end of each shift; and
- Having individuals on site who are experienced and have received specific training on identifying traces of hazardous materials, including asbestos on site during all excavations.

The Principal Contractor will appoint a specialist waste company to manage the removal of all soils in accordance with the relevant regulations, to a licensed facility. The waste company will ensure that the waste soils carried are as per the waste transfer ticket, sheeting all loads and cleaning their wagons following transportation.

Day to day dust management will require all material removed from the site to be in covered vehicles. A mobile water bowser will be used to dampen the construction area and haul roads, in dry weather, to reduce windblown dust. There will also be provision to wash vehicle wheels, to reduce the amount of dust tracked out onto the highway.

#### **6.4.2 Dust Reports and Complaints Procedure**

The Principal Contractor will monitor the construction works and will apply dust minimising measures where needed, e.g. water spraying, internal traffic speed control etc. The Principal Contractor must ensure that all dust complaints are recorded in the site daily diary, investigated and reported to the Environment Agency (where appropriate) and the source of the dust complaint must be identified and resolved before operations continue.

### **6.5 Surplus Material and Waste**

Surplus materials will be collected, segregated and placed in containers for onward recycling at an appropriately licensed facility.

Prior to any disposal, the wastes will be appropriately classified and waste transfer notes with appropriate European Waste Coding (EWC) will be completed and issued to BRM monthly for their records. The BRM weighbridge will be used to confirm weights of materials being transported offsite.

### **6.6 Fuel Storage**

Generally, re-fuelling of mobile plant and machinery will be carried out at a designated location within the site compound only.

Vehicle re-fuelling will take place within the compound at a dedicated position. The fuel will be bunded and equipped with a collection sump. Refuelling will be carried out using an approved mobile fuel bowser with a suitable pump and hose. Absorbent material (spill kits) will be available on site and will be deployed to contain drips and small spillages. All other fuels, oils and potential contaminants, as well as waste oils, will be stored within the site compound in secure, fit for purpose containers within bunded containment as appropriate and in accordance with EA guidance. The bunded containment shall have a capacity of 110% of the volume to be stored and shall have impervious, secured walls and base. Maintenance of mobile plant will take place within the construction compound only.

There shall be no fuel storage outside the compound. Plant shall be maintained in good operational order and any fuel/oil leaks recorded for attention. Absorbent pads/granules in the case of an accidental leak/spillage shall be available.



## **6.7 Spillage**

Spillage of fuel, oil and chemicals will be minimised by implementation of an Emergency Pollution Prevention Plan (EPPP) which will be prepared by the Principal Contractor. In the event of any spillage or pollution of any watercourse the emergency spill procedures as described in the EPPP shall be implemented immediately.

## **6.8 Site Inductions**

An induction will be required for all workers (permanent / temporary / contractor / subcontractor), site visitors, client representatives or other 3rd parties. Inductions shall be documented. Plant operators and construction staff will be trained by the Principal Contractor regarding spill prevention/mitigation measures and procedures and in the use of relevant mitigation material (e.g. spill kits).



## 7.0 Disclaimer

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

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