

# **Brocklebank & Co. (Demolition) Limited**

Allende Way, Darnall, S9 5AP

## **Operational Plan**

### **Aggregate Recycling of Inert & Non-Hazardous Wastes**

**STATUS: PERMIT VARIATION**

**Document Reference: 203381/OP**

**March 2022**



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## **1.0 INTRODUCTION**

### **1.1 Overview**

The site is operated by Brocklebank & Co. (Demolition) Limited (the Operator). This Plan relates to a bespoke environmental permit to permit the processing of both non-hazardous mineral materials. The processing is to be undertaken through soil and mineral washing and screening.

This plan sets out the infrastructure at the site, the site layout and operating processes and controls. The Permit Boundary Plan and Site Layout Plan are detailed in drawings 203381/D/001 and 203381/D/003, respectively.

## **2.0 MANAGEMENT**

### **2.1 Management**

The operation of the site is in accordance with the following management systems:

- Operational Plan (this document);
- Fugitive Emissions Management Plan;
- Site Condition Report;
- Spill Response Plan;
- Accident Management Plan; and
- Health and Safety Plan.

The Plans set out the following information:

- Environmental Policy;
- Register of Environmental Effects;
- Operational controls and responsibilities including method of works;
- Site Infrastructure plan;
- Site and equipment maintenance regime;
- Contingency plans;
- Accident plans and procedures;
- Complaints procedure;
- Staff and Training records; and
- Review process.

The site clearly establishes and monitors performance for key objectives, this includes but is not limited to:

- Material and waste compliance;
- Incidents and complaints by category; and
- Non-conformances.

### **2.2 Staffing**

All staff have clearly defined roles and responsibilities with specified skills for each post required.

At all times there is sufficient staff to manage and operate activities on the site without causing a risk to the environment. Staff employed at the site on a typical shift may include:

- Site Manager/TCP
- Site Supervisor
- Weighbridge Operator
- Plant Operatives

In accordance with industry guidance, the site is supervised by a Technically Competent Person (TCP) (WAMITAB Operator) who is on site for greater than 20 % of the operation of the facility.

The Operator notes its duty to notify the EA of any changes to the provision of technical competence.

The site is supervised by the TCP and at least one other member of staff who is fully conversant with the requirements of the permit and this plan:

- Waste acceptance and control procedures;
- Operational controls and environmental monitoring;
- Maintenance;
- Record keeping; and
- Emergency action plans; and notifications to the EA.

Additional expertise from the maintenance contractor, material testing consultants and permitting/planning consultants is sought, as necessary. These additional resources are secured under contract to the Operator.

Technical staff will demonstrate continuing competence by passing periodic assessment. Personal training records are kept providing evidence. All contractors are trained about the relevant working controls and legal responsibilities relating to their area of work.

The Site Supervisor only authorises works to be undertaken once relevant legal requirements and a site-specific risk assessment has been completed.

### 2.3 Closure Process

In the event that part, or whole, of the facility ceases to operate under the Permit, the affected proportion of the site will be closed. At cessation of the works, the area is fully cleaned and made safe.

A Site Condition Report (203381/SCR) for the site is submitted with this application.

The data will be reviewed with regards to the likely site condition and a closure plan will be developed, including a targeted site investigation, to demonstrate that the site condition is acceptable. If remedial works are necessary, then these are developed and agreed with the EA as part of the closure process.

### 2.4 Hours of Operation

The site will operate in accordance with hours approved under the planning consent. Table 2.1 sets out the working hours currently permitted at the site.

Table 2.1 Working Hours	
Day	Hours
Monday to Friday	06:00 – 18:00
Saturday	06:00 – 18:00
Sundays, Public or Bank Holidays	No operations.

## 3.0 WASTE MANAGEMENT OPERATIONS

### 3.1 Overview

This section sets out the waste management processes to be undertaken at the site. The section examines the system wide operations to be applied and the waste specific processing operations at the site.

Schedule 1 details the operating processes and Schedule 2 the accepted wastes. Figure 1 presents the soil washing process flow diagram and drawing 203381/D/003 shows the site layout.

Only waste streams from pre-selected contracts/contractors will be permitted at the site. There will be no ad-hoc acceptance of material at the gate. No more than 250,000 tonnes of waste will be accepted at the site per annum.

Storage areas for waste feedback and recovered product are shown on drawing 203381/D/003.

#### *Pre-acceptance assessment*

Prior to acceptance the waste will be reviewed to determine its characteristics and assess treatability. The following will be assessed:

- the nature of the process that produced the waste, including variability of the process;
- the composition of the waste, including analysis of a representative sample from the soils and sludges from brownfield sources or waste facilities; and
- each new enquiry (waste producer) will complete the Waste Acceptance Form (WAF), setting out its EWC Code and characteristics, including chemical constituents, state (form) and quantity. WAFs will be passed to the Operator to review and determine whether it is acceptable.

A consolidated list of permitted wastes is detailed in Schedule 2.

The Site Manager will only approve acceptance of the waste for treatment or storage for onward transfer if they are satisfied that the characterisation is sufficient, including a consideration of variability.

#### *Waste Acceptance*

As required, wastes transported to the site will be weighed, the location of the weighbridge is included in drawing 203381/D/003. If not put over the weighbridge weights will be recorded in line with industry guidance (i.e. tonnages per lorry). The weighbridge is within the wider site under the ownership and responsibility of the Operator.

Only permitted waste that conforms to the type and description in the documentation supplied by the producer and/or holder will be accepted. The waste must conform to the WAF data sheet.

The following wastes will not be accepted at the site:

- wastes consisting solely or mainly of dusts, powders or loose fibres; and
- hazardous materials.

During vehicular unloading the driver will be supervised by a trained operative and the waste material will be further inspected. If there is any uncertainty regarding the waste type against the expected characterisation as set out in the WAF then the material and/or the vehicle will be isolated until the assessment can be concluded. If the waste is unacceptable the vehicle will be re-loaded and the waste transfer note rejected from the site.

In the event that potentially unacceptable waste is identified post tipping this will be segregated and taken to the Quarantine Area (as indicated on Drawing 203381/D/003). The quarantine area consists of a storage bay. Where further testing is required to determine acceptability, this will be undertaken by the Site Supervisor or delegate. Quarantine controls are set out in Section 3.5.

The producer of the waste will be notified of the potential incident and if deemed necessary the importation of the waste stream will be stopped until acceptability can be confirmed. In the event that the waste is unacceptable the producer will be notified to remove the material from site. The details of this incident will be recorded in the site's Daily Diary.

### 3.2 Storage over shutdown periods and security

Loaded vehicles are turned away when the area is not operational. In the event that a vehicle cannot be turned away, it will be placed adjacent to the quarantined section. The site will be locked during out of hours.

### 3.3 Cleaning

As determined necessary through the inspection regime, excessive accumulation of soil fines and dust on areas of hardstanding and external haulage roads will be cleaned by sweeping and/or water spraying. During down time and periods of low activity at the site maintenance and cleaning will be undertaken removing any accumulated debris.

### 3.4 Storage of waste

The location for the storage of waste from the operations and the quarantine area is set out in drawing 203381/D/003. Recovered materials may be stored outside of the permit boundary once point of recovery has been demonstrated.

### 3.5 Quarantine

Pre-acceptance procedures are implemented to avoid unacceptable waste being received at the site. Despite these controls, waste streams can contain unexpected waste that is not suitable for processing.

Upon identification these wastes will typically be rejected and returned with the carrier to the producer. The rejection will be notified to the producer and a record maintained in the Daily Diary.

In the event that unacceptable waste is identified the material will be isolated and transferred to the Quarantine Area. Controls are outlined in Table 3.1. The Quarantine Area has an impermeable base and is partially covered.

Waste type	Waste processing controls	Storage controls
Hazardous soils or demolition material (e.g. hydrocarbons or asbestos)	Waste treatment in area to immediately stop in the event of identification.  Area to be demarcated by fencing. It will not be disturbed until a full characterisation of the waste has been undertaken by competent personnel and review of health and safety requirements undertaken.  Transfer to Quarantine Area and placed in a container or on impermeable sheeting as required	Once safe working control developed, wastes will be transferred to Quarantine Area for offsite disposal or recovery.  If not placed in a suitable container, stockpiled material will be immediately sheeted once the stockpile has been formed. The sheet will be impermeable to prevent leaching.  The affected area will be inspected to ensure no cross-contamination has occurred and that it is safe for treatment operations to recommence.

An inventory of wastes within the Quarantine Area will be maintained at all times, detailing the date, waste characteristics and the date for removal.

### 3.6 Waste Processing

#### Overview

The process overview is shown in Figure 1 and the detailed layout is shown in drawing 2003381/D/003.

The plant is located over an impermeable concrete base. The concrete drains to three collection chambers at the south of the site, as shown on drawing 203381/D/004, via a silt trap and

interceptor. The site has a fully sealed drainage system and collects surface water run-off is re-used within the process. The chambers are routinely inspected and cleaned, typically every 3 months.

#### *Feedstock management*

Following the inspection of the wastes at the weighbridge, vehicles delivering wastes are directed to tip in the feedstock area. Wastes are further inspected and non-compliant material removed or rejected.

The excavator driver visually assesses the feedstock stockpile and removes any obvious material greater than 300 mm, including inert material, incidental timber and metals. Any identified unacceptable waste will be segregated and stored in skips. These materials will be removed from site for recovery at a suitably licenced facility.

#### *Pre screen*

The excavator will place material into a pre-screen. The size of the pre-screen will be adjusted but is typically 80-100 mm. Oversize material is segregated from the material designated for washing. The material is transferred to another permitted Brocklebank facility for crushing.

The smaller fraction of material is transferred onto the conveyor and lifted to the wet screening processes. The material on the conveyor belt is screened by a magnet which removes any ferrous metals. The metals drop into a sealed skip on the concrete surfacing.

The material is then transferred into the primary screens where they are subject to high intensity agitation and power washing. Silts, clays and sands less than 5 mm are split from the larger fraction and transferred via the base of the log wash into a cyclone and fine meshed screens that split the sands and clays/silts. The coarser fraction (>5 mm) including main physical contaminants are transferred to the aggregate log wash.

#### *Coarse aggregate washing*

The coarser fraction falls into the log wash where it is driven through a water bath and high intensity sprays by Archimedes screws/paddles. The light contaminants, attached clays and soils are removed through further high pressure washing, flotation and agitation, cleaning the oversize fraction.

The log wash is inclined and the applied water falls to the low section of the structure. The light contaminants (such as wood, plastics etc) float on the surface of the water and are lifted via a trash screen and transferred to a bay / container below the log wash. The process agitates the larger fraction, removing any attached clays and silts and the attrition also causes further break down of the minerals. The resulting sand, mineral chippings, silts and clays fall to the bottom of the log wash and pumped to the cyclone and sand screens.

#### *Aggregate screening and washing*

The resultant clean oversize (>5 mm) is transferred from the log wash onto a conveyor. The cleaned recycled aggregate is then further segregated through screens and sprays washes into pre-determined mineral fractions for resale. The range of aggregates made can vary but are typically 5-10 mm, 10-20 mm, 20-40 mm and 40-80 mm.

#### *Sand washing*

The mineral fraction less than 5 mm is pumped to cyclones. The clay/silt fraction is split through the cyclones from the water and heavier sands. The resulting silty/clay water is transferred to the slurry tanks. This screened mineral fraction is between 0.63 mm and < 5 mm which is further sprayed. This is the washed sand fraction.

#### *Slurry processing*

The resulting clay and silt slurry is pumped to a settlement tank. The rate of settlement is controlled through the addition of a flocculant. The mineral sludges falls to the bottom of the tank and is pumped to an agitation tank. The liquid silts and clays are typically at 80% water content.

A rotating boom in the agitator tank continuously moves the mineral sludge preventing it settling out and it is then pumped to the filter press. The filter hydraulically presses water from the solids via membranes reducing the moisture content to typically below 30 %. The water is transferred back into the process. The pressed silt/clay solid fraction drops on to the ground below the press.

### 3.7 Material Testing and Records

The testing of the resulting products is undertaken in accordance with the Factory Protocol which ensures the material meets the requirements of the following standards and specifications:

- Standards
  - BS EN 13242: Aggregate for unbound and hydraulically materials for use in civil engineering and road construction;
  - BS EN 12620: Aggregates for concrete
- Specification
  - Product can be manufactured to various specifications, as set out in Table 3.2.

Table 3.2 Specification		
Product	Specification	Quality controls
Unbound recycled aggregate	Highway Authority and Utilities Committee: Specification for the reinstatement of openings in the Highway Specification for Highway Works (SHW) Series 500 BS EN 13285: Unbound mixtures SHW Series 600 Earthworks SHW Series 700 Road Pavement SHW Series 800 Road Pavement	As set out in standards.
Unbound cohesive fill	SHW Series 600 Earthworks	

All testing is carried out in accordance with the UKAS and MCERTS accredited regimes.

### 3.8 Storage of Material and Waste

Recovered materials will be stockpiled by grade within the bays shown in drawing 203381/D/003 or outside of the permit area, once point of recovery has been achieved.

If, following testing, soils do not meet the necessary specification, they will either be further processed on site or transferred from the facility for further recovery or disposal at a suitably licenced site. All mineral wastes will be fully characterised (typically EWC 19 12 09) and accompanied with characterisation data including laboratory test results.

In the event that materials are considered not to meet the end of waste tests, the material batch will be reviewed. This review will be undertaken by the Site Team and will involve review against the WAF forms over that period to better understand the root cause. A non-conformance form will be raised, and corrective / preventative actions will be undertaken. This will include greater testing regime on the batch to determine significance of any failure including a quality assurance check at the laboratory.

Non-conforming batches will be temporarily stored in the concreted bays and will be covered with plastic sheeting to prevent surface water pathways, pending test results confirming either re-treatment or disposal.

Wastes identified during waste assessment or removed in the waste treatment process will be stored on an impermeable concrete surface within the permit area at all times, either within storage bays or containers. Waste will be removed for onward recovery, or if necessary, disposal, at any appropriately licenced facility.





## **4.0 EMISSIONS AND MONITORING**

### **4.1 Emissions to Air**

#### *Fugitive emissions of dust and particulates*

The site lies within an urban setting and is located in an industrial estate, with a recently developed housing estate positioned to the south and east of the site. The nearest residential properties are located circa 30 m east of the site. All works will be undertaken in accordance with the Fugitive Emissions Management Plan (203381/FEP).

#### *Odour*

The pre-acceptance controls and waste types to be accepted at the site will not generate significant odour. Given the distance to sensitive receptors and the low likelihood occurring no specific controls or monitoring are deemed to be required.

The operations have been inspected on many occasions by EA Officers and no odour issues have been identified. If notified by the EA that the site activities are giving rise to pollution outside the site, the Operator will produce an Odour Management Plan.

### **4.2 Process water, site run-off and discharges to land, controlled water and sewer**

#### *Site run off*

The surface of the site is entirely constructed of impermeable concrete. The site falls to the south and drainage is directed into a series of three interconnected, sealed sub-surface chambers, as shown in drawing 203381/D/004.

Surface water run-off passes through a silt trap and a petrol and oil interceptor before discharge to the chambers. Water from the chambers is used within the soil washing facility in a closed loop system. There is no discharge of process waters.

The process waters in the soil washing system are cleaned through clarifiers and filters and re-used within the treatment process. The process operates at a deficit, requiring top up during the day. The deficit occurs through evaporation and the difference between moisture content in the outputs compared to the inputs.

There is no discharge of surface water from site to surface water or groundwater. Float switches in the collection chambers are set to ensure that water levels are maintained at a low level, ensuring maximum capacity for interception of site run-off in the event of a significant rainfall event.

The integrity of the concrete surfacing and site drainage system is inspected on a daily basis. Maintenance activities are planned as necessary including regular removal of silt and removal of any oil deposits from the interceptor as necessary.

In the event of any damage to concrete surfacing or features of the drainage system, repairs are organised as soon as possible and will be completed within seven days where possible. In the event that this is not practicable, temporary repairs may be necessary whilst permanent repairs are organised in accordance with a Construction Quality Assurance regime. Appropriate measures (such as the use sandbags or construction of a bund) will be taken to prevent surface water running over any damaged concrete surfacing). Actions taken will be recorded in the Site Diary.

#### *Process water*

As set out above, the process waters of the soil washing plant is undertaken on a circular closed loop process water system.

The process water top-up is provided from harvesting of surface water from collection chambers, local borehole abstraction (<20 cu m per day) and mains water supply.

#### *Leaks and spillages from vehicles and fixed tanks*

The Operator maintains its vehicles, plant and equipment in accordance with relevant legislation. This ensures the manufacturers' schedules are followed and ensures the vehicles, plant and equipment are fit for purpose. The Operator trains and authorises its staff to operate the vehicles, plant and equipment to uphold the above.

Any fuel or oil is stored in accordance with the Control of Pollution (Oil Storage) (England) Regulations 2001 and the appropriate Pollution Prevention Guidelines (for example, PPG 2 or PPG 26). A spill kit is located at the fuel storage location.

#### *Procedures for control and remediation of leaks and spillages*

Leaks and spillages from operational equipment and plant on site are controlled in accordance with the spill procedure.

All site staff are trained to deal with leaks and spillages according to the above procedures. The Site Supervisor and TCP will ensure that any required remedial actions are completed to an appropriate standard. In the event of a significant spillage, the EA is notified as soon as possible. All significant spillages and leaks are recorded in the Site Diary.

### **4.3 Noise and Vibration emissions**

The site is located within an industrial estate and has historically been used for waste management operations. It is considered that the noise levels generated by the site are normal, due to the existing control mechanisms and nature and hours of the operations. There is no history of complaints for excessive noise and noise emissions have not been raised during liaison with the local Agency Officer.

The site staff will ensure that waste handling, processing, storage and loading and the delivery and removal of waste and recovered materials will take place in a controlled manner so that noise generation is kept to a minimum.

Sensitive receptors along the eastern flank of the site are protected from noise emissions by the 2.5 m high concrete wall running alongside Allende Way. In addition, steel cladding extends to a height of 3-6 m along the eastern boundary and assists in noise attenuation.

In addition, a bund and fence have been installed on the northern flank of the adjacent housing development (parallel with Allende Way and the site boundary) as part of the residential development. There is no line of sight from the nearby residential properties to noise generating activities at ground level.

The filter press is raised above ground level and is within a fully enclosed housing of steel cladding, which effectively reduces noise emissions.

Given the location of the site it is unlikely that site operations will intrude above background levels. All equipment, plant and vehicles used on the site will be maintained such that no excessive noise is produced as part of site operations.

All fixed plant is powered by electrical motors, thereby minimising noise emissions in comparison to diesel powered alternatives.

The inspection of noise levels generated by the operation will be on a continuous basis by the site staff and it will be their responsibility to identify and control any excessive noise that occurs. Active, quantitative monitoring will only be undertaken if it is identified that problems are being caused.

A record of any complaints arising regarding noise emissions and the actions taken will be kept in the site diary.

If notified by the Environment Agency that the site activities are giving rise to noise (or vibration) pollution outside the site, the operator will produce a Noise and Vibration Management Plan.

#### **4.4 Mud and debris**

The following measures ensure that mud and debris is controlled from leaving the site and impacting on local roads.

The site is accessed by a concrete surfaced access road circa 80 m length to the site entrance on Allende Way.

All vehicles are inspected for compliance prior to leaving site to avoid any unnecessary mud/debris. Manual clearance of critical areas of the site will prevent the build-up of mud/debris.

Should it become apparent that debris and mud is being deposited onto a public highway, sweeping of the relevant areas will be organised immediately. Any routine inspections and subsequent actions are recorded in the Site Diary.

Further measures to control mud and debris are detailed in the Fugitive Emissions Management Plan (FEP).

#### **4.5 Pests**

The waste types accepted at the site are unlikely to attract pests. In the event that pests are identified, a specialist pest control company will be appointed and deploy the necessary controls.

#### **4.6 Litter**

The waste streams processed at the site are unlikely to generate litter. No specific controls are proposed.

In the event that litter is identified around the site, it is recorded in the Site Diary and action is undertaken to remove the litter to a general waste container.

#### **4.7 Fire Prevention and Control**

No fires or burning of waste is permitted at the site. The risk associated with the occurrence of fire on the site is anticipated to be very low. Any occurrence of fire at the site is regarded as an emergency and acted upon immediately upon discovery.

The operations involve the recovery of soils and aggregates with low burning potential.

The following actions are undertaken in the event of a fire:

- Notify the fire brigade immediately and the EA as soon as practicable;
- Isolate the burning area and attempt to extinguish the fire if this can be undertaken without placing any member of staff or the public at risk; and
- Evacuate the site if the fire is not containable.

All instances of fires (or suspected fires resulting from arson or vandalism) are recorded in the Site Diary.

### **5.0 RAW MATERIALS**

The Operator will maintain an inventory of the raw materials utilised within the recovery and transfer operations. Procedures are put in place to maintain the quality of materials used and ensure processing of raw materials are undertaken in an efficient manner, minimising wastage.

Table 5.1 sets out those resources used in the processing of waste within the facility. As part of the quarterly management review the consumption of raw materials is assessed and improvement measures implemented.

<b>Table 5.1. Raw material consumption</b>		
<b>Resource</b>	<b>Usage</b>	<b>Improvement measure</b>
Water	Suppression of dusts Water for the soil washing process	The site process uses water re-circulated in the process, supplemented by collected surface water, borehole water abstraction (< 20 m <sup>3</sup> /day) and mains water as necessary.  The amount of potable water consumed is assessed quarterly along with any improvement measures that can be deployed.
Flocculants	Treatment of suspended solids in flocculation tank	The type and amount of flocculant is trialled during every process variation to ensure process water quality is sufficiently maintained and flocculants usage minimised.
Fuel/Electricity	Power supply to mobile plant and main processing plant	Refer to section 7.

## 6.0 WASTE

All recyclable waste material is sent for onward recovery. Where recovery is not possible the waste is assessed for suitability for energy recovery. Only those materials which cannot be re-used are sent for disposal.

Records of all waste movements are made in accordance with the Duty of Care regulations and Section 8 of this plan.

## 7.0 ENERGY

The processing system has been designed to minimise energy consumption as far as possible. All pumps and control systems are state of the art to minimise power demand.

Fuel and electrical consumption are monitored to determine areas of consumption/expenditure against the processing being undertaken. Regular maintenance of plant ensures maximum efficiency is obtained.

## 8.0 SITE INFRASTRUCTURE

### 8.1 Signage

A visible notice board is maintained at the site entrance. This will detail:

- The permit holder's (and operator's) name;
- The operator's telephone number;
- The permit number; and
- The EA's contact details.

The board is constructed of durable materials and maintained in a clearly legible condition throughout the entire duration of operations.

The board is inspected weekly by the site manager to ensure it is clearly legible from the site boundary and free from damage or vandalism. The site manager will record all inspections in the site diary.

## **8.2 Vehicle Guidance and Traffic Management**

Where necessary, signs are positioned to guide traffic in and out of the site, and to the appropriate parking and waste receiving areas. Pedestrians are directed to the site office. The site management will ensure that all signs are maintained in a good order.

A trained operative will direct internal traffic and vehicles, as required.

## **8.3 Site office**

The site office location is located outside of the permit area, as shown in drawing 203381/D/003.

All vehicles and pedestrians are directed to report to the office upon entry to the site.

Vehicles (importing materials) are inspected in accordance with the site requirements and Duty of Care paperwork checked.

## **8.4 Site security, fencing and gates**

The permit area is sited within a larger area of land within the Operator's control. The whole area is secured by a perimeter wall or fence formed of steel cladding extending to a minimum height of 2.5 m.

Entrance gates are secured outside of permitted operational hours. The integrity of the perimeter wall, fencing and gate is inspected and maintained by the Operator. Any damage or defect that reduces security at the site is repaired as soon as possible. Damage to the site fencing and gates is recorded in the Site Diary, along with any required repairs.

The site staff are instructed that, in the event of finding evidence of unauthorised access and/or vandalism, the matter must be reported to the Site Manager and, if necessary, the Police who will then take appropriate action.

## **8.5 Lighting**

There is fixed lighting at the site. Lighting will only be used in accordance with the Planning Permission and will be turned away from local receptors. Any lights are angled to avoid spillage and are regularly inspected and repaired as necessary. All repairs are recorded in the Site Diary.

## **9.0 RECORDS**

### **9.1 Inspections**

The site is inspected by the TCP or Site Supervisor at least daily. The inspection will assess environmental controls, permit requirements and operational performance. The results are recorded in the Site Diary.

### **9.2 Records**

In line with documented procedures and statutory requirements, records are maintained in relation to the following:

- Waste Acceptance Forms (WAFs) on all potential wastes to be processed at the site;
- characteristics and volumes of waste accepted and waste dispatched (and all other records required by the Duty of Care);
- emissions monitoring data (i.e. air quality and odour monitoring (if required) and drainage inspections);
- recorded environmental effects including minor and significant pollution incidents;
- complaints from the public;
- daily site inspection reports (including severe weather conditions adversely affecting site activities, where necessary);
- maintenance schedules and records (including breakdown repairs);
- daily log of extraordinary events at the facility including rejected waste loads;

- non-conformances to the EMS, mandatory and voluntary standards;
- emergencies;
- TCP attendance at site; and
- records of training.

A copy of the permit and this management plan and supporting documents are kept available on site.

All records, to be held in electronic or paper form, are available to the relevant authorities on site and kept for a minimum of two years.

The Operator keeps all records relating to the site at the Company's registered office at Allende Way, Sheffield, S9 5AP.

### **9.3 Reporting**

Within one month of the end of each quarter, the operator shall submit to the EA the tonnages of the waste received, material recovered and waste transferred off-site. The weight is recorded using the Operator's weighbridge. In the event that the weighbridge is unavailable, weights are assessed in accordance with the EA Generic Operator Returns (GOR) guidance conversion factor of 1.5 tonnes per cu m for soil, construction and demolition wastes.

Any other requirements of the permit are reported accordingly, including: notification when plant has broken down resulting in a potential to pollute; when a condition of the permit has been breached; or where a limit in the permit has been breached and there is considered significant adverse impact.

### **9.4 Notifications**

In the event of a change, all notifications will be in accordance with the conditions in the permit.

### **9.5 Testing Standards**

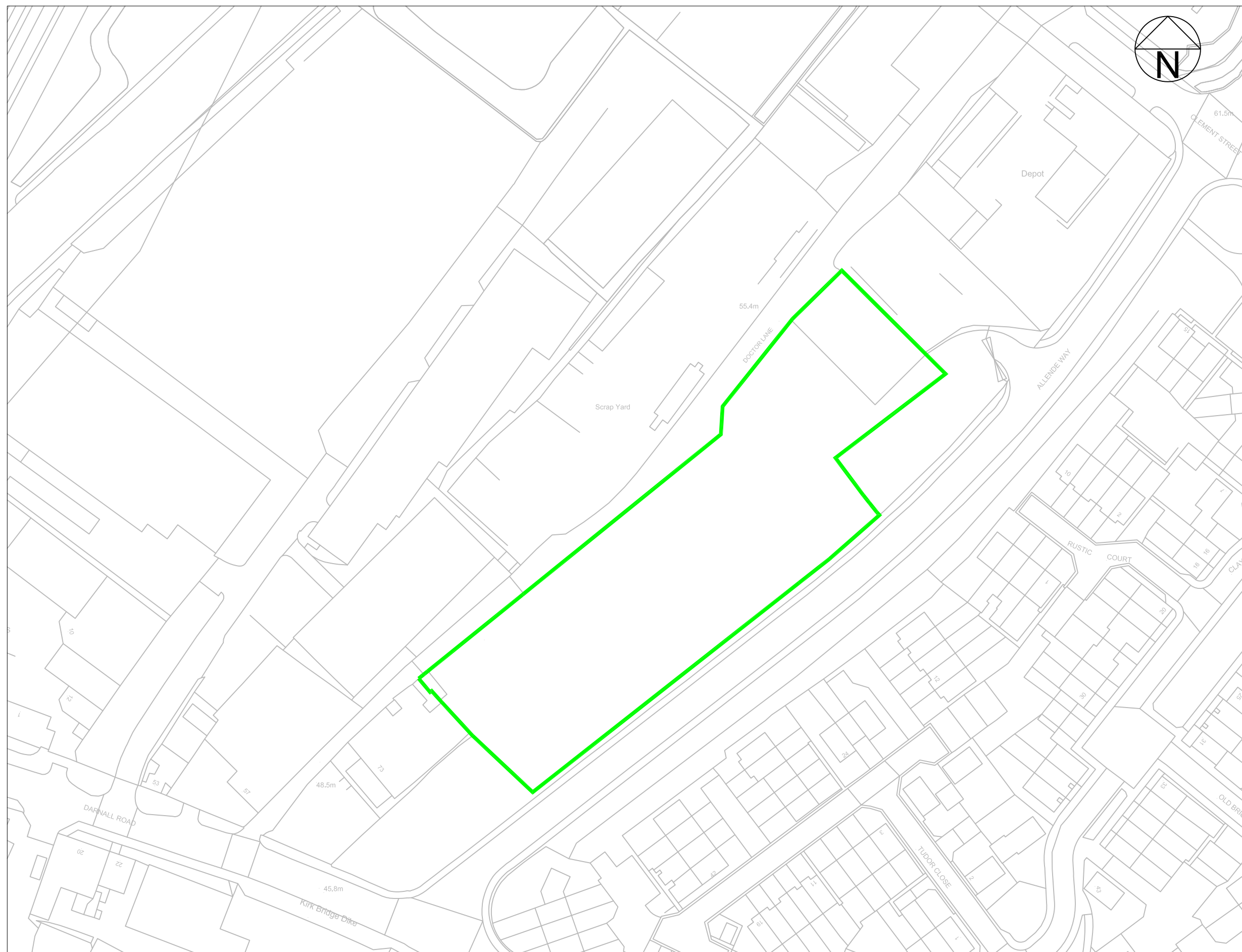
All testing of wastes and monitoring of emissions is undertaken in accordance with industry accepted standards and accreditation.

Only laboratories and equipment which are suitably accredited are used.

A schedule of equipment, calibration and testing accreditation is maintained by the site.

# DRAWINGS





**Key:**  
— Permit Boundary

Rev.	Details	Drawn	Date
		Chkd.	

Project  
**203381**  
 Brocklebank Soil Washing Facility

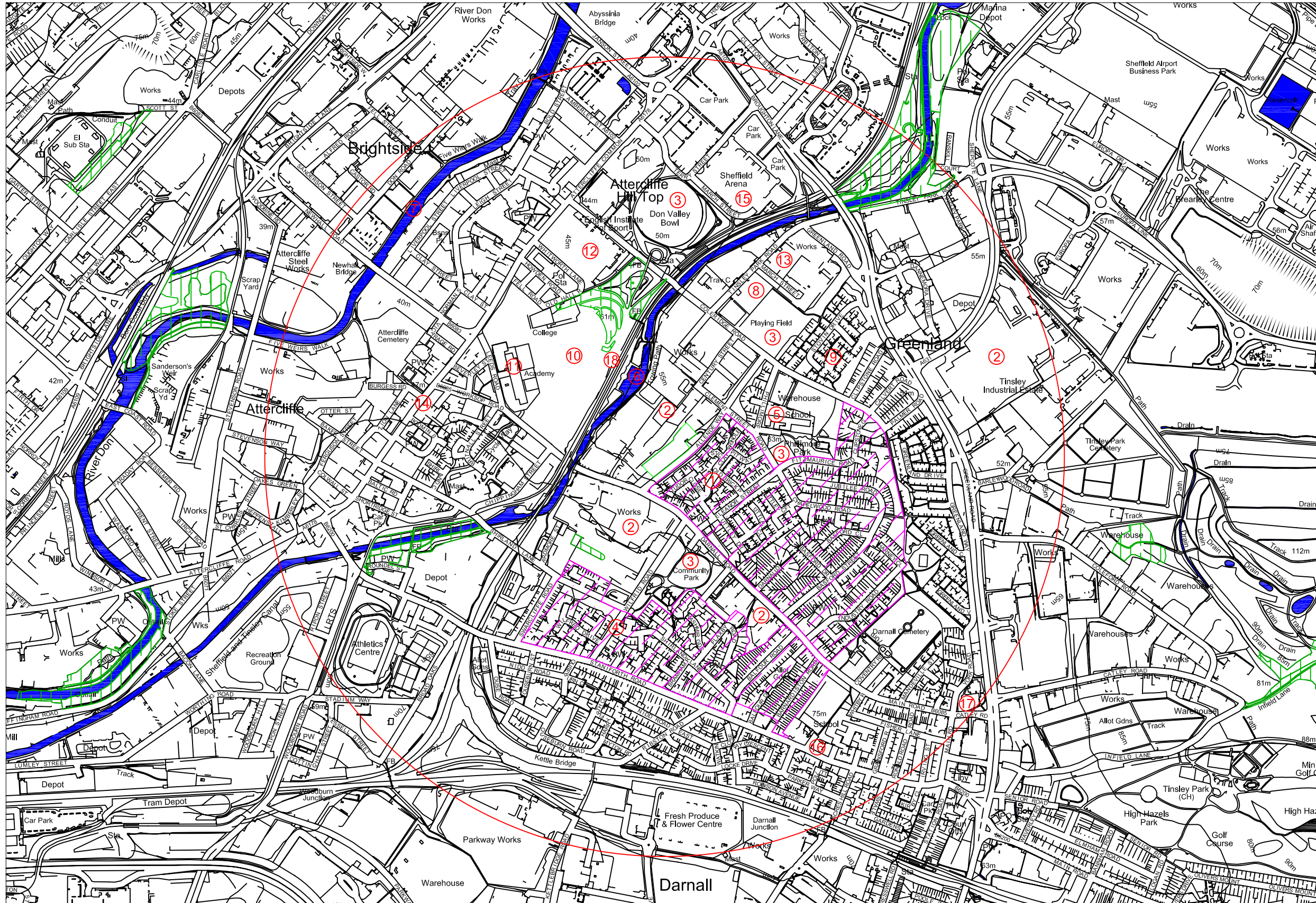
Title  
 Permit Boundary Plan



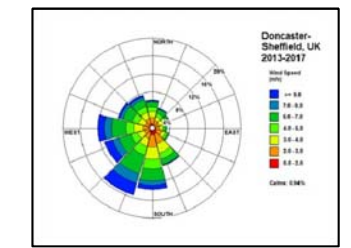
**AA Environmental Ltd**  
 Units 4-8  
 Cholswell Court  
 Shippon Abingdon  
 Oxon OX13 6HX  
 T: (01235) 536042  
 F: (01235) 523849  
 info@aae-ltd.co.uk  
 www.aae-ltd.co.uk

Scale	Date	Nov'23	Drwg. No.	Rev.
1:1000@A3	Drawn	EB	Chkd. ML	203381/D/001





- Key:**
- Site Boundary
  - 1km Radius
- RECEPTORS:**
- ① Residential area North of Darnall Rd
  - ② Industrial Area
  - ③ Recreational Park
  - ④ Residential area South of Darnall Rd
  - ⑤ Phillimore Community Primary School
  - ⑥ Sheffield & Tinsley Canal
  - ⑦ River Don
  - ⑧ Avicenna Academy
  - ⑨ Residential area off Stovin Drive
  - ⑩ Sheffield Olympic Legacy Park
  - ⑪ Oasis Academy Don Valley
  - ⑫ English Institute of Sport Sheffield
  - ⑬ Bounce Sheffield Recreational
  - ⑭ Commercial / Industrial area off Attercliffe Rd
  - ⑮ Utilita Arena Sheffield
  - ⑯ Al-Mahad Al-Islami Girls School
  - ⑰ Darnall Health Centre
  - ⑱ Critical Infrastructure
- ▭ Priority Habitats - Deciduous Woodland
  - ▭ Residential Receptors
  - ▭ Surface Water Bodies



Rev.	Details	Date	
		Chkd.	

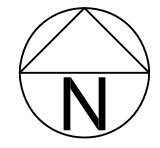
Project  
 203381  
 Brocklebank Soil Washing Facility

Title  
 Receptor Plan

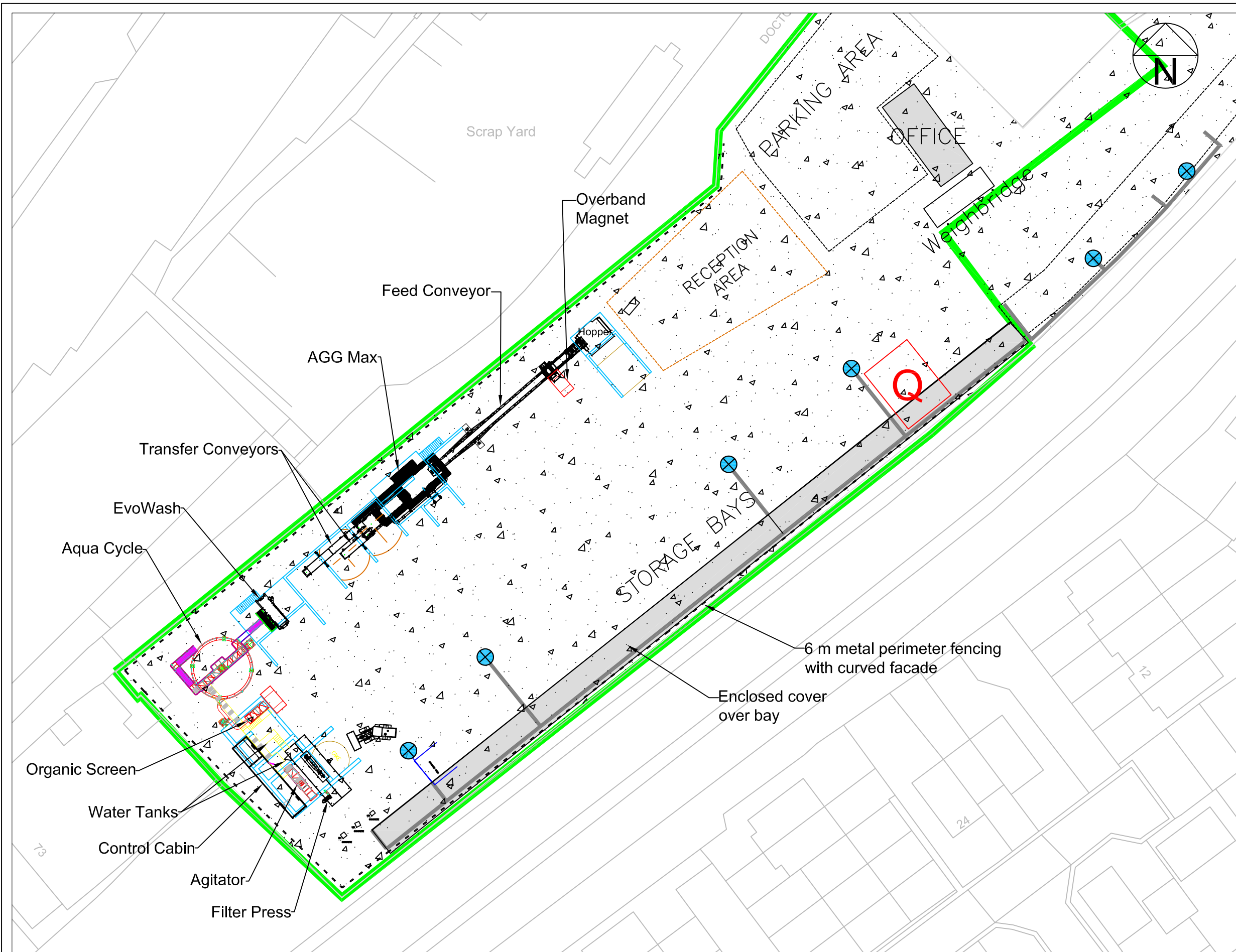


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1:10,000@A3	Drawn	KE	203381/D/002	
	Chkd.	EB		







- Key:**
- Permit Boundary
  - ◇ Skip Container
  - Quarantine Area
  - ⊗ Fixed Nozzle Misting System
  - - - 6 m high metal perimeter fencing

Rev.	Details	Drawn Chkd.	Date
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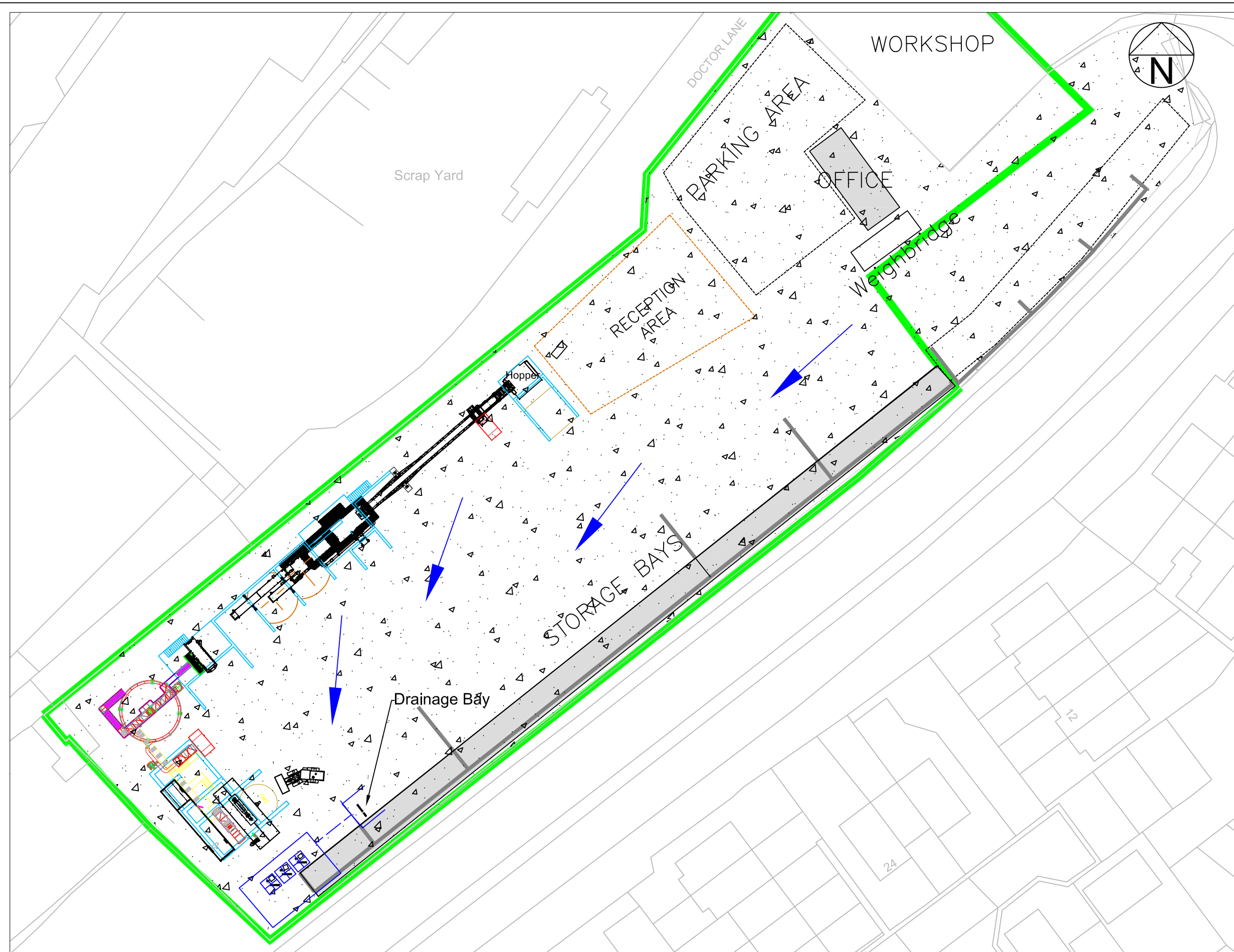
Project  
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Title  
 Site Layout Plan

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			203381/D/003	



- Key:**
- Permit Boundary
  - Overland direction of flow
  - - - Subsurface pipe
  - ▭ Subsurface tank
  - ⊠ Manhole/Gullies
- Notes:**
1. Drainage bay used for dust suppression/maintenance.

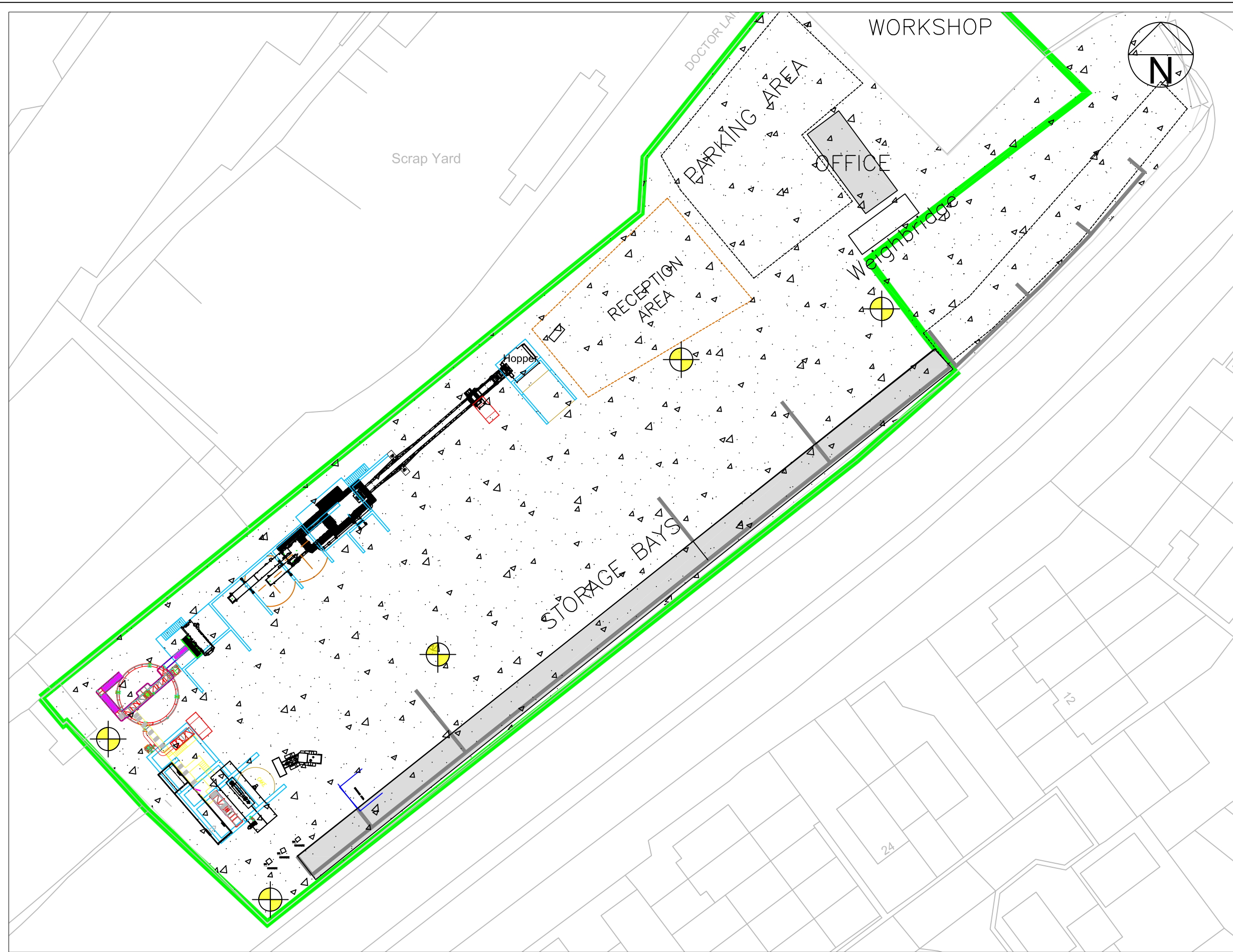
Rev.	Details	Drawn	Date
		Chkd.	



Project  
 203381  
 Brocklebank Soil Washing Facility

Title  
 Drainage Plan

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- Key:**
-  Permit Boundary
  -  Dust / Noise Qualitative Monitoring Points

Rev.	Details	Drawn	Date
		Chkd.	

Project  
 203381  
 Brocklebank Soil Washing Facility

Title  
 Site Monitoring Plan



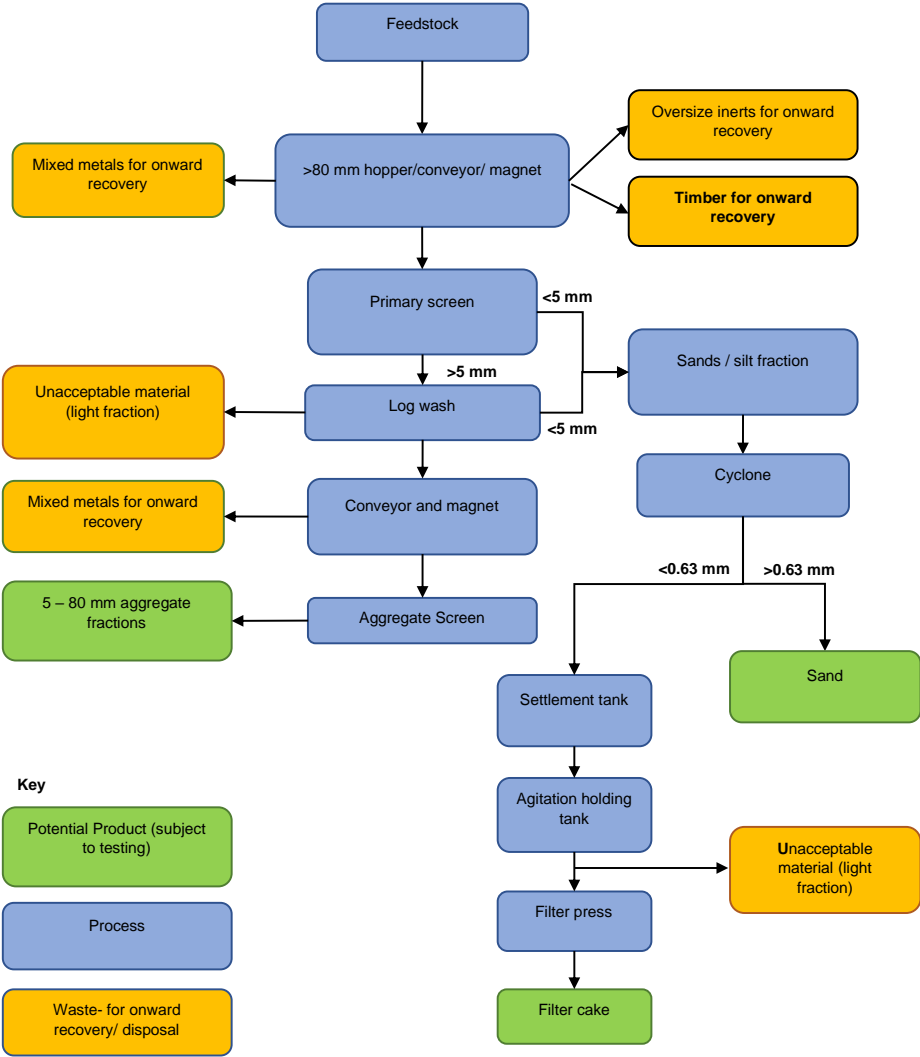
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	Chkd.	EB		

## FIGURES



**Figure 1: Soil Washing Process Flow Diagram**



# Schedules



<b>Schedule 1 Recycling Aggregate: Treatment of Non-Hazardous Waste</b>			
<b>Activity</b>	<b>Activity Listed in schedule 1 of EP Regulations</b>	<b>Description</b>	<b>Limits of waste</b>
Soil Washing	NA	<p>Storage and recovery of inert and non-hazardous mineral based materials</p> <p>R3 - Recycling/reclamation of organic substances.</p> <p>R4 - Recycling/reclamation of metals and metal compounds</p> <p>R5 - Recycling of other inorganic compounds.</p> <p>R13 – storage pending onward recovery.</p> <p>D9 – Physico chemical Treatment of Mineral Slurries in washing process</p> <p>D14 – Bulking up of filter cake and residual waste</p> <p>D15 – Storage of filter cake and residual waste</p>	<p>Annual through put limited to 250,000 tonnes.</p> <p>Manual and mechanical sorting, separation, soil/mineral washing, screening of waste into different components for recovery or disposal.</p> <p>Permitted waste types set out in Schedule 2.</p> <p>No asbestos contaminated soils will be permitted at the facility.</p>

<b>Schedule 2 Waste types for aggregate recovery/ recycling</b>	
<b>Waste code</b>	<b>Description</b>
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>
01 01	Wastes from mineral excavation
01 01 01	Wastes from mineral metalliferous excavation
01 01 02	Waste from non-metalliferous excavation
01 04	Wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays
<b>02</b>	<b>WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING</b>
02 02	Wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 02	Shellfish shells only (no soft tissue of flesh)
<b>10</b>	<b>WASTES FROM THERMAL PROCESSES</b>
10 01	Wastes from power stations and other combustion plants (except 19)
10 01 01	Bottom ash and slag only
10 01 02	Pulverised fuel ash only
10 01 15	Bottom ash and slag only from co-incineration other than those mentioned in 10 01 14
10 11	wastes from manufacture of glass and glass products
10 11 03	Waste glass-based fibrous materials (without organic binders)
10 12	Wastes from casting of non-ferrous pieces
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 13	Wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 14	Waste concrete only
<b>15</b>	<b>WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED</b>
15 01	Packaging (including separately collected municipal packaging waste)
15 01 07	Glass packaging
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>
17 01	Concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, brick, tiles and ceramics
17 02	Wood, glass and plastic
17 02 02	Glass
17 03	Bituminous mixtures, coal tar and tarred products
17 03 02	Bituminous mixtures
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	Soil and stones
17 05 06	Dredging spoil (other than those mentioned in 17 05 05)
17 05 08	Track ballast
17 09	other construction and demolition wastes
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03 (consisting of granular material only)
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>
19 08	Wastes from waste water treatment plants not otherwise specified
19 08 02	Washed sewage grit (waste from de-sanding) free from sewage contamination only
19 08 99	Stone filter media (if free from sewage contamination) only
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 05	Clean crushed glass only
19 12 09	Minerals (for example sand and stones)
19 12 12	Other waste: silts and grits from waste transfer sites
19 13	Wastes from soil and groundwater remediation
19 13 02	Solid waste from soil remediation other than those mentioned in 19 13 01
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>
20 02	Garden and park wastes (including cemetery waste)
20 02 02	Soil and stones
20 03	Other municipal wastes
20 03 03	Street-cleaning residues Street sweepings, Litter, Gully emptyings, Road sweepings