

# Caulmert Limited

Engineering, Environmental & Planning  
Consultancy Services



## Proposed Corbriggs Wood Processing Facility

Silva Recycling Limited

## Bespoke Environmental Permit Application

## Fire Prevention Plan

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Document Reference: 5448-CAU-XX-XX-RP-V-0304.A0.C1

December 2022



**APPROVAL RECORD**

<b>Site:</b>	Proposed Corbriggs Wood Processing Facility
<b>Client:</b>	Silva Recycling Limited
<b>Project Title:</b>	Bespoke Environmental Permit Application
<b>Document Title:</b>	Fire Prevention Plan
<b>Document Ref:</b>	5448-CAU-XX-XX-RP-V-0304.A0.C1
<b>Report Status:</b>	<b>Final</b>
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<b>Approved</b>	Andy Stocks Director of Environment	<b>Date</b>	24/11/2022

Revision Log			
Revision	Description of Change	Approved	Effective Date
C1	Initial Release	AS	19/12/2022

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## Fire Prevention Plan

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## DRAWINGS

<b>12800_004 Phase 1</b>	Site Layout Plan
<b>12800_004 Phase 2</b>	Site Layout Plan
<b>14866</b>	Concept Drainage Strategy Plan
<b>5448-CAU-XX-XX-DR-V-1800</b>	Sensitive Receptor Plan

## APPENDICES

<b>Appendix 1</b>	Site Inspection Form
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## 1.0 INTRODUCTION

### 1.1 Background

- 1.1.1 Silva Recycling Limited have appointed Caulmert Limited to prepare a bespoke environmental permit application for a new wood processing facility ('the site') off Mansfield Road, at Corbriggs, Chesterfield, postcode S41 0JW. The proposed waste operation involves combustible wastes (wood) and so in accordance with Environment Agency (EA) guidance, a Fire Prevention Plan (FPP) has been prepared.
- 1.1.2 The operator proposes to develop a new wood processing facility at an existing industrial site and the proposed activities will include the reception, screening, separating, shredding and storage of non-hazardous wood wastes prior to removal off-site, primarily for manufacturing into chip-board based products.
- 1.1.3 This FPP has been prepared in order to identify the potential fire risks associated with the import, processing, segregation, shredding, storage and bulking of wood waste as a potentially combustible material. Appropriate methods of fire control are employed at the site which emphasise upon fire prevention, detection, suppression, containment and potential mitigation techniques.
- 1.1.4 This Fire Prevention Plan (FPP) has been compiled in accordance with the Environment Agency (EA) guidance 'Fire prevention plans: environmental permits' (updated January 2021) and with reference to the Wood Recyclers Association guidance on 'Writing Waste Wood Fire Prevention Plans' (updated February 2020) which is approved by the EA. This FPP provides guidance for the prevention and management of potential waste fires at the site and to minimise the impact of a fire on the environment.
- 1.1.5 The fire prevention measures in this FPP have been written to meet the 3 objectives detailed in the EA Guidance:
- Minimise the likelihood of a fire happening;
  - Aim for a fire to be extinguished within 4 hours;
  - Minimise the spread of a fire within the site and to neighbouring sites.

### 1.2 Using the Fire Prevention Plan

- 1.2.1 This FPP forms parts of the site's management system and sets out the fire prevention measures and procedures in place at site. During an incident the FPP will be made available to the Fire and Rescue Service (FRS). See Section 1.3.
- 1.2.2 All staff and contractors on site will undergo thorough site inductions and training to understand the contents of the FPP so they are aware of what they must do to prevent a fire happening and during a fire if one breaks out on site.

- 1.2.3 Training of staff and contractors is covered in Section 13.4 of this FPP.
- 1.2.4 The FPP will be regularly tested every 6 months which will be incorporated as part of the Fire Drills carried out on site by the Site Manager/Deputy. A record will be made of the FPP test and fire drill with any comments including suitability of the FPP and actions required to improve the FPP to suit the operations of the site.
- 1.2.5 This FPP will kept under regular review and will be treated as a working document. It will be updated when there are changes such as (but not limited to): new mobile plant & equipment, new waste streams added to the permit, an increase in waste annual throughput, changes in operations and management systems.

### **1.3 Fire Information Box**

- 1.3.1 A 'Fire Information Box' will be placed at the site entrance which will include key information for the Fire and Rescue Service should they attend a fire on site during out of hours. The Fire Information Box will contain information including:
- Copy of the Fire Prevention Plan;
  - Site Layout Plan drawings ref. 12800 004 Phase 1 and 2;
  - Contact information for Site Management.

## 2.0 SITE LOCATION & SURROUNDINGS

### 2.1 Site Location

- 2.1.1 The site is located in an industrial estate on the eastern side of Mansfield Road, at Corbriggs, in southeast Chesterfield, at postcode S41 0JW and National Grid Reference SK 41002 68251.
- 2.1.2 The closest residential properties to the site are within the Corbriggs area, located approximately 30m to the west, 45m to the southwest and 75m south of the site boundary. The nearest watercourse is the Calow Brook, located 110m to the southeast of the site. The site location is shown below in Figure 1.
- 2.1.3 The surrounding area is predominantly agricultural land to the north and east, with South Chesterfield Golf Club located 30m to the southwest and Grassmoor Country Park 130m to the south. In between the site and the fields to the north is the A617 dual carriageway. The settlement of Temple Normanton is located approximately 940m to the southeast and Grassmoor is located 910m to the southwest of the site.



Figure 1 – Site Location (source: Google Earth 2022)



## 2.2 Sensitive Receptors

- 2.2.1 The site is surrounded by agricultural land, with the closest residential receptors to the site, a traveller's site, located 30m west of the site on Mansfield Road. A residential property is also located approximately 45m to the southwest of the site and another row of houses is located 75m to the south. There are no schools or hospitals within 1km of the site.
- 2.2.2 The Environment Agency Nature and Heritage Conservation Screen provided as part of the Basic Pre-Application Advice has identified two Local Wildlife Sites (LWSs) within 200m of the site. The closest is Corbriggs Marsh, located approximately 100m southeast of the site. And the second is Grassmoor Country Park located 130m to the south of the site.
- 2.2.3 A search of the surrounding area using the DEFRA Magic Maps<sup>1</sup> and Wildlife Trusts<sup>2</sup> websites has also identified that within 2km of the site is The Avenue Washlands LWS approximately 1.6km to the southwest of the site, and Williamthorpe Local Nature Reserve (LNR) approximately 1.8km to the southeast of the site. There are no LNRs within 1km of the site.
- 2.2.4 There are no Sites of Scientific Interest (SSSI), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), National Nature Reserves (NNRs), Ramsar sites or Areas of Outstanding Natural Beauty (AONBs) within 2km of the site boundary. There are no Ancient Woodlands within 1km of the site boundary.
- 2.2.5 The closest surface water receptor to the site is the Calow Brook, located 110m to the southeast, which flows from the southwest to the northeast.
- 2.2.6 According to the GOV.UK's long term flood risk maps, the majority of the site is at very low risk of Surface Water Flooding (chance of flooding of less than 0.1% each year), and very low risk of Flooding from Rivers or the Sea. It is noted the area of land immediately to the southeast of the proposed site permit boundary is shown as at low to medium risk of surface water flooding (i.e. flash flooding). Low risk is defined as having between a 0.1% and 1 % chance of flooding each year. Medium risk is between 1% and 3.3% chance of flooding each year.
- 2.2.7 The site is not within a Source Protection Zone (SPZ), with the closest, a Zone III, located over 11km to the southeast. The site is situated on the Pennine Middle Coal Measures bedrock which is designated a Secondary A Aquifer, defined as 'permeable layers capable of supporting water supplies at a local rather than strategic scale'.
- 2.2.8 A search of sensitive receptors within 1000m distance to the site is included in the Sensitive Receptors Plan, drawing ref. 5448-CAU-XX-XX-DR-V-1800. A summary of the identified sensitive receptors is detailed in Table 1 below:

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<sup>1</sup> DEFRA Magic Maps website, 2022: <https://magic.defra.gov.uk/MagicMap.aspx>

<sup>2</sup> The Wildlife Trusts website, 2022: <https://www.wildlifetrusts.org/>

**Table 1 – Sensitive Receptors within 1000m of the Site Boundary**

Receptor	Receptor Type	Distance/Direction
Secondary A Aquifer within bedrock	Groundwater	Below site
Traveller Site	Residential	30m W
South Chesterfield Golf Club	Recreational	30m SW
Construction Equipment Supplier	Industrial/Commercial	30m E
Residential Properties	Residential	45m SW
Plant & Machinery Hire Site	Industrial/Commercial	60m SE
Residential Properties	Residential	75m S
Winsick/Milehill residential area	Residential	90m NW
Corbriggs Marsh LWS	Habitat	100m SE
Calow Brook	Surface Water	110m SE
Grassmoor Country Park LWS with ponds and stream	Habitat & Surface Water	130m S
Swimming Pool/Leisure Centre	Recreational	135m NW
Users of A617	Public Road	140m NE
Industrial Site/Scrap Yard	Industrial	150m W
Residential Properties	Residential	170m SE
Agricultural Fields	Agricultural	170m NNE, 180m E, 200m W
Garage/MOT Centre	Industrial/Commercial	220m NW
Maris Pumps Plant & Machinery Hire	Industrial/Commercial	440m E
Shed and Garden Centre	Industrial/Commercial	450m NW
Tableware Manufacturer	Industrial/Commercial	460m SE
Wynholme residence	Residential	580m E
Allotments	Recreational	740m ESE
Old Manor Park	Recreational	780m SE
Residences off Hassocky Lane	Residential	810m NE
Farm residence	Residential	870m SW
Hasland residential area	Residential	910m NW
Grassmoor residential area	Residential	910m SW
Groundworks Contractors Yard	Industrial/Commercial	920m SE
Commercial/Industrial Units	Industrial/Commercial	920m SW
Temple Normanton residential area	Residential	940m SE
Residence with stables	Residential	980m SSE

## 2.3 Meteorological Conditions

- 2.3.1 Fugitive emissions of dust, litter, odour and noise from site operations, and also fire, smoke and vapours from a fire incident are likely to be affected by local weather conditions, in particular by wind direction and strength.

- 2.3.2 The closest meteorological station to the site actively recording wind statistics is Selston weather station, located over 15km to the southeast of the site. Wind statistics from this weather station are considered to be representative of the typical conditions at the site (see Figure 2 below).
- 2.3.3 A review of the data recorded daily between April 2013 and October 2022 on the Windfinder.com website<sup>3</sup> indicates that the most dominant wind direction is from the west-southwest towards the east-northeast. The sensitive receptor plan shows that predominant wind conditions are likely to blow from the wood recycling facility away from most of the nearest sensitive receptors towards the A617 and agricultural fields to the northeast.



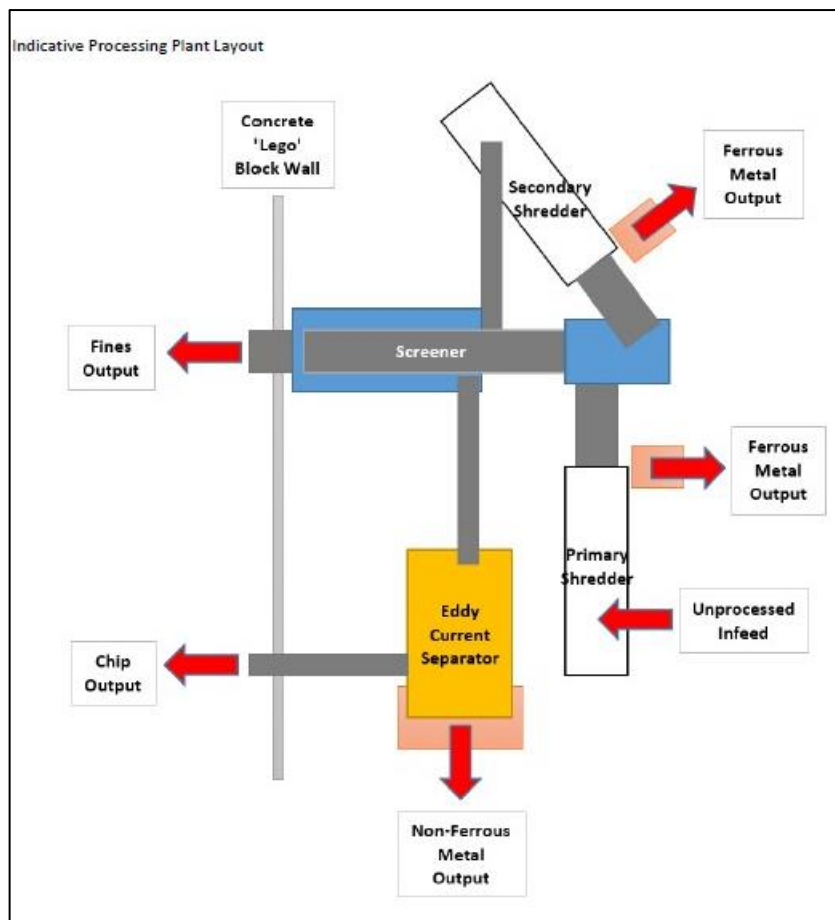
**Figure 2 – Selston wind statistics – average wind direction & strength 2013 to 2022.**

<sup>3</sup> Windfinder website 2022, found here: <https://www.windfinder.com/windstatistics/selston>

## 3.0 SITE ACTIVITIES

### 3.1 Proposed Operations

- 3.1.1 The operator, Silva Recycling Limited, are proposing to operate a wood processing facility at an existing industrial site on the eastern side of Mansfield Road, at Corbriggs, Chesterfield. The operations will include storage, shredding, screening and separation of non-hazardous wood wastes, which is to be undertaken outside in the processing area on-site (see attached drawing ref. 12800\_004 Site Layout Plan).
- 3.1.2 The site will treat up to 75,000 tonnes per year of non-hazardous wood waste as a recovery activity, with the temporary storage of up to 6,000 tonnes non-hazardous waste at any one time. Seasonal fluctuations will affect the volume of incoming waste loads to the site, and as such this will be managed with a phased approach.
- 3.1.3 The site will be operated in a phased approach to accommodate the supply of incoming waste loads and the requirements of customers including Kronospan which will dictate the specification of the shredded wood sent to their chipboard factory in Chirk. The initial site operations will be to produce a 'pre-shred' material, with very little processing and refining of the wood chip, as shown in layout drawing ref. '12800\_004 Phase 1'. This will be for the pre-shredding of wood and limited storage of wood wastes prior to transfer off-site for further processing at Kronospan's chipboard manufacturing site in Chirk.
- 3.1.4 The move of into the proposed Phase 2 expansion of the operation will be dictated by either an increase in throughput of wood wastes at the site and/or the need for greater storage capacity at the site due to seasonal demands. This then will involve the Corbriggs site accepting greater volumes of incoming wood waste and will require the temporary storage of larger volumes of wood waste on-site. Therefore, further processing may also be required, where the shredded wood will be fed through a screener to remove the wood fines and any other incidental contamination and production wastes, and an Eddy Current Separator may be used to remove non-ferrous metals prior to sending to Chirk (see Figure 3 below). For this expanded operation, the operator proposes to use the site layout plan as shown in the drawing ref. '12800\_004 Phase 2' which shows a greater storage capacity of both unprocessed and processed waste streams. Both plans show the proposed locations of the weighbridge, processing area, quarantine area, storage bays, site entrances, parking areas and other site infrastructure at each operational stage.
- 3.1.5 To reiterate, the transition from the proposed Phase 1 operations to the expanded Phase 2 operations will depend on the increase in throughput and/or the need for greater storage capacity at the site.



**Figure 3 – Simple processing plant flow diagram (Phase 2)**

- 3.1.6 The processing plant to be used on site will include a shredder(s) fitted with over-band magnets, a screener and potentially an Eddy Current Separator, with other mobile plant to include a Materials Handler and Wheeled Loading Shovel(s) or telehandler(s). HGVs arriving at site will tip inbound waste wood within a designated tipping area in the site yard for visual inspection by staff prior to stockpiling the waste in an 'unprocessed' bay. Loading of outbound processed materials will be by using a loading shovel onto HGVs for removal off-site.
- 3.1.7 It is proposed the site will operate 24hours a day, 7days a week, with the waste reception, shredding, screening and separating undertaken between the hours of 07:00 and 19:00, and the loading of outbound waste and site maintenance undertaken 24hours a day. The staff will work on a shift system. It is anticipated that there will be a maximum of four shifts. The applicant has advised that a maximum of 10 employees will be on site at once (this will vary depending on the scale of operations being undertaken at the site).
- 3.1.8 An existing site entrance off Mansfield Road will be reopened, allowing site visitors and staff to park vehicles in the designated car park areas. The entrance will be opposite the location of the site office containers, which will provide welfare facilities, including offices, toilets and canteen.
- 3.1.9 The site surface is proposed to be constructed of impermeable concrete or tarmac, with installed drainage system and interceptor, and connections to surface water and foul sewer

discharge. The site's surface water run-off will be directed by the site's drainage system via an oil/water interceptor into the local surface watercourse (the Calow Brook).

3.1.10 Only in exceptional incidents, such as uncontrolled spillages on site or in the event of a fire where firewater is generated, would potentially contaminated waters be temporarily contained on site by the installed stop valves, attenuation tank/sump and bunded areas before either being discharged to sewer (subject to meeting discharge consent parameters) or pumped and tankered off-site for disposal. Other wastewater streams generated by the site would be limited to domestic foul water from the site's offices, toilets, and canteen, which will be discharged directly into the foul sewer.

3.1.11 The site will be inspected daily when operational and subject to regular cleaning and maintenance, with remedial actions required to be fully documented in the site diary, which is to be kept at all times in the Site Offices.

3.1.12 The proposed activities to be carried out at the site are as follows:

- Delivery and reception of wood wastes with strict Waste Acceptance Procedures.
- Temporary storage outside of unprocessed wood wastes - within designated storage bays constructed with modular, movable concrete walls, with 1m freeboard above stockpile.
- Initial sorting of unprocessed wastes to remove MDF chipboard into separate bay.
- Shredding of waste wood and removal of ferrous metals by over band magnets. Ferrous metal is put into a storage bay or skip awaiting removal off-site.
- Screening of waste wood to remove wood fines and incidental contamination and production wastes (i.e. litter, plastics). These are ejected from the screener into designated concrete storage bay or skips for removal off-site.
- Removal of non-ferrous metals using Eddy Current Separator may be undertaken. Non-ferrous metals output is into a separate bay or skip awaiting removal off-site.
- Storage of pre-shred or good quality woodchip in bays before transfer off-site for recovery.
- Storage of incidental contamination and production wastes (i.e. plastics, litter etc.) will be in a skip awaiting removal from site.
- Run-off surface water from the site surface will be collected by the site drainage system with interceptor and stop valves on-site before discharging to surface water. Any potential firewater generated in the event of a fire on site will be collected by the site drainage system with sump, bunding and penstock valve. This will then be tested

and either discharged to foul sewer (in agreement with the sewer provider) or pumped by tanker and remove from site for disposal.

- Welfare facilities will be connected to foul sewer.

3.1.13 The unprocessed and processed wood wastes and fines from the screening process, will be stockpiled in external concrete storage bays, constructed of movable modular concrete walls. In line with FPP guidance the stockpiles of unprocessed and processed wood materials will be no more than 4 metres high. The concrete bay walls will be constructed up to 5 metres high to provide a 'freeboard' space of 1m at the top of the bunker and sides of the walls, which will remain clear at all times to prevent fire spreading over the walls. The maximum stockpile height will be marked out as a line within each storage bay to ensure site staff do not overfill a bay with material. The operator will ensure stockpile volumes are in line with EA Fire Prevention Plan guidance (varying for different waste types & sizes), unless alternative measures are employed. The site has been designed to have storage bays with a capacity of up to 1,500m<sup>3</sup>, hence the water supply for fire-fighting, and containment of firewater are based on this volume. The proposed locations of storage bays and the processing area for the shredders, screener and separator plant are shown on the attached Site Layout Plan drawings ref. 12800\_004 Phase 1 and 12800\_004 Phase 2.

3.1.14 Unprocessed wood waste will be delivered to site by Heavy Goods Vehicles (HGVs) or in RORO containers and checked as per strict Waste Acceptance procedures. The waste transfer note and waste load will be inspected at the weighbridge and then checked again during tipping. The waste load will be tipped in a designated unloading area before being stockpiled in the 'unprocessed wood' storage bays by mobile plant.

3.1.15 The mobile plant will continuously supply the shredder (where possible) with unprocessed wood waste during operational hours. The resultant materials produced by the shredding, screening, and separating of the waste wood will be wood chip (for export off-site) and separated ferrous and non-ferrous metals, wood fines and incidental contamination and production wastes (plastics, litter, unwanted fractions etc.). The ferrous and non-ferrous metals will be stored in a concrete storage bay or a skip, and the wood fines will be stored in concrete storage bay, pending removal to a suitable disposal or recovery facility. The incidental contamination and production wastes will be stored in a skip, awaiting removal from site.

## **3.2 Storage Arrangements**

3.2.1 Table 2 below details the storage arrangements of waste materials on site, the volumes stated are typical and may fluctuate depending on the season and quantities of waste received but will remain within the permitted limits.

**Table 2 – Waste storage arrangements at the site**

Waste Stream	Form	Max Dimensions	No. of stockpiles	Maximum storage time	Storage location
<b>Unsegregated waste streams</b>					
Mixed wood waste (unprocessed)	Loose, stockpiled	Up to 4m high –max 1500m <sup>3</sup>	Up to 6 storage bays (max. 1500m <sup>3</sup> each)	Typically, 48 hours (but up to maximum 3 months in line with guidance)	External concrete storage bays – 5m high walls
Unprocessed Grade C wood waste (MDF)	Loose, stockpiled	Up to 4m high –max 1500m <sup>3</sup>	1 storage bay (max. 1500m <sup>3</sup> )	Until full – estimated 7 days (but up to maximum 3 months in line with guidance)	External concrete storage bays – 5m high walls
<b>Segregated waste streams</b>					
Wood chip	Loose, stockpiled	Up to 4m high – max 1500m <sup>3</sup>	Up to 6 storage bays (max. 1500m <sup>3</sup> each)	Typically, 48 hours (but up to maximum 3 months in line with guidance)	External concrete storage bays – 5m high walls
Ferrous metal	Loose, stockpiled or in skip	Up to 4m high – max 250m <sup>3</sup>	1 or 2 storage bays or a skip	Until full – but up to maximum 3 months in line with guidance	External concrete storage bays – 5m high walls OR skip
Non-ferrous metal	Loose, stockpiled or in skip	Up to 4m high – max 250m <sup>3</sup>	1 storage bay or a skip	Until full – but up to maximum 3 months in line with guidance	External concrete storage bays – 5m high walls OR skip
Wood fines	Loose, stockpiled	Up to 4m high – max 750m <sup>3</sup>	Up to 2 storage bays	Typically 1 week (but up to maximum 3 months in line with guidance)	External concrete storage bays – 5m high walls
Incidental contamination and production wastes (e.g. litter, plastic, unwanted fractions etc.)	In skip	Skip	1 Skip	Until full - but up to maximum 3 months in line with guidance	Margin of processing area or in quarantine area

### 3.3 Hazardous Materials

3.3.1 No other hazardous materials or substances are proposed to be stored on site. Any hazardous or potentially polluting substances found in the course of depositing or processing the waste will be temporarily stored securely (if required) in the quarantine area, prior to removal from site.



**3.4 Gas Cylinders, Fuels & Lubricants**

- 3.4.1 Fuels and oils/lubricants stored on site for plant fuelling and maintenance will be within containers that have secondary containment, and stored within a lockable shipping container, situated on the impermeable site surfacing.
- 3.4.2 A mobile fuel bowser will only be used in designated areas with impermeable surfacing and spill kits available, operated by trained staff. When not in use, the mobile fuel bowser will be parked on impermeable surfacing and in the HGV parking area overnight, with CCTV surveillance for added security.
- 3.4.3 There will be no storage of gas cylinders within the site boundary.

## 4.0 MANAGING COMMON CAUSES OF FIRE

### 4.1 Arson

4.1.1 Security measures are in place to prevent the unauthorised access to the site. The site boundary is surrounded by 2m high palisade fencing, where the front entrance and exit gates are lockable palisade gates which are locked outside of operational hours.

4.1.2 The integrity of the security fencing and gates are inspected daily and at the end of the day recorded on the 'Site Inspection Form' (Appendix 1). Any defective locks or damaged fencing or gates will be repaired as soon as practicable. The site may be manned during the following operational times:

Monday to Sunday inc. Bank Holidays - 24 hours  
(exc. Christmas Day, Boxing Day and New Year's Day)

07:00 – 19:00	Waste reception
07:00 – 19:00	Processing (shredding/screening/separating)
24 hours	Loading outbound materials
24 hours	Site maintenance

4.1.3 The site will operate a CCTV system across the facility, cameras monitoring activities 24 hours a day, 365 days a year. The CCTV is connected to a monitoring system which alerts Site Management to a site incident out of hours (when the site is unmanned).

### 4.2 Plant and Equipment

4.2.1 The following equipment are to be used on site:

- 1 to 2 waste wood electric shredders with over-band magnets (and enclosed generator)
- 1 x screener plant
- 1 x Eddy Current Separator
- 1 to 2 telehandler mobile plant and/or wheeled loading shovels
- 1 x mobile fuel bowser

4.2.2 All plant and mobile equipment will undergo regular inspection, staff will be trained to identify any leaks or damage and report any faults to site management immediately so remedial actions can be scheduled. As part of daily site inspections, the 'Site Inspection Form' (Appendix 1) will be completed. At the beginning of every plant operator's shift, the plant or vehicle will be inspected prior to workers starting their shift in order to carry out checks on plant and mobile equipment and to report any defects to site management.

4.2.3 All vehicles will be fitted with a fire extinguisher and any vehicles that are not being used or parked for end-of-shift will be safely parked away from any combustible materials. All mobile plant is parked away from combustible materials when not in use and at the end of the

operational day in the parking area as shown in the attached Site Layout Plan drawings ref. 12800\_004 Phase 1 and Phase 2.

- 4.2.4 The shredders will be electric shredders, with a generator stored inside a container to ensure noise emissions are prevented from being significant.

### **4.3 Re-fuelling of Plant and Equipment**

- 4.3.1 All refuelling of onsite plant will be undertaken on impermeable surfacing by a mobile fuel bowser, which is stored on site when not in use, away from combustible materials, and within the area covered by impermeable surfacing. The surface where re-fuelling is undertaken will be impermeable to ensure that the potential for leaks and spillages of hazardous substances to the surrounding environment is minimised. Spill kits are available around site, and only trained site staff will undertake refuelling duties.

### **4.4 Electrical faults including damaged or exposed electrical cables**

- 4.4.1 To prevent and reduce the risk of fires as a result of electrical faults, underground electric cables will supply site services and lighting to the weighbridge and site offices. All electrics on site will be regularly inspected and cables which provide power for general plant and machinery will be inspected to ensure there are no breaks or exposed wires. Any defects will be reported immediately, and remedial actions will be scheduled.

- 4.4.2 Any electrical works that are required on site will be carried out by a fully certified electrician.

### **4.5 Discard smoking materials**

- 4.5.1 To prevent and reduce the risk of fires as a result of discarded smoking materials, the site will operate a strict 'no smoking' policy, signs will be displayed around the site.

- 4.5.2 As part of the site induction, staff, visitors and contractors will be advised and made aware of the no smoking policy enforced on site.

### **4.6 Hot works**

- 4.6.1 Hot works will only be conducted by personnel under an authorised hot works permit, which will ensure all reasonable precautions are implemented to minimise the risk of fire. A fire watch will be conducted following any hot works, such as welding or cutting, on site.

### **4.7 Industrial heaters**

- 4.7.1 Not applicable to site and industrial heaters are not utilised on site.

### **4.8 Hot Exhausts**

- 4.8.1 Mobile plant exhausts and engine surfaces can become hot and dust settling on these surfaces can cause a fire risk. As part of the site operations, 30 minutes before site closure all mobile

plant under-go a 'cooling period' where they are moved outside to the plant parking area and allowed to cool down.

- 4.8.2 A visual check will be carried out at regular intervals during the working day by site operatives to identify any signs of a fire caused by dust settling on hot exhausts and engine parts. At the end of the working day a record will be made of the plant and with details of visual inspections made. Where necessary any build-up of fibres and dust will be wiped down. All records will be made in the 'Site Inspection Form' checklist (Appendix 1).

#### **4.9 Ignition Sources**

- 4.9.1 Naked flames, such as those from welding works or generators, will be kept at least 6m away from any combustible or flammable wastes. No industrial heaters, incinerators, or furnaces are utilised on site.

- 4.9.2 The site operates a 'no smoking' policy throughout the site, no naked flames will arise from this.

#### **4.10 Batteries**

##### ***Batteries in ELVs***

- 4.10.1 No End-of-life vehicles (ELV) are accepted or processed on site.

##### ***Battery Storage***

- 4.10.2 Due to the nature of the wastes brought to site no batteries will be stored or processed on site.

#### **4.11 Leaks and Spillages**

- 4.11.1 As part of the IMS, in the event of a potentially polluting leakage or polluting spillage taking place, immediate remedial works will be carried out. This will be in the form of suitable spill-kits and the area will undergo decontamination.

- 4.11.2 All vehicles used on site shall undergo regular maintenance and daily checks to ensure they are in good working order to prevent any fuel or lubricant leaks from site vehicles.

- 4.11.3 All refuelling of onsite plant will be undertaken on impermeable surfacing by a mobile fuel bowser, which is stored on site when not in use, away from combustible materials, and within the area covered by impermeable surfacing. The surface where re-fuelling is undertaken will be impermeable to ensure that the potential for leaks and spillages of hazardous substances to the surrounding environment is minimised. Spill kits are available around site, and only trained site staff will undertake refuelling duties.

- 4.11.4 Fuels and oils/lubricants stored on site for plant fuelling and maintenance will be within containers that have secondary containment, and stored within a lockable shipping container, situated on the impermeable site surfacing.

4.11.5 Any containers or skips used to store hazardous substances shall be:

- Clearly labelled detailing the contents (unless contents are clearly identifiable);
- Inspected and maintained in accordance with maintenance schedules and procedures, shall be fully documented and recorded; and,
- In the event of damage or deterioration to a container, this shall be repaired or replaced immediately.

4.11.6 Any leaks or spillages will be recorded on the 'Site Inspection Form' checklist (Appendix 1), and if any are identified during this daily check, remedial actions will be carried out and recorded.

#### **4.12 Build-up of loose combustible waste, dust and fluff**

4.12.1 Good housekeeping, cleaning and maintenance of the site and mobile plant and equipment will prevent the build-up of loose combustible waste. Visual daily site checks will be completed to monitor any dust, debris or waste accumulation around plant exhausts or hot surfaces and will be cleaned immediately. Daily Site Inspections (recorded on the 'Site Inspection Form' checklist (Appendix 1) will ensure that any build-up or accumulation has been inspected and remedial actions carried out as appropriate.

#### **4.13 Reaction between wastes**

4.13.1 The site will operate according to the Waste Acceptance Procedures and Waste Handling Procedures detailed in the site IMS. The waste acceptance procedures will ensure that all wastes are inspected to identify any non-conforming, unstable or incompatible components. Due to the nature of the site operations, it is anticipated that no incompatible wastes will be brought to site.

4.13.2 However, in the event that that an incompatible waste is brought to site, the use of the site quarantine area will ensure that any non-conforming wastes are segregated, and a Fire Watch (detailed in Section 3.16) will be carried out regularly and at the end of the working day. Daily Site Inspections (recorded on the 'Site Inspection Form' (Appendix 1) will ensure that stockpiles and waste storage areas are inspected for any signs of smoking, smouldering or heat prior to the site closing for that working day.

4.13.3 Loads of non-conforming waste will be rejected, either immediately or as soon as reasonably practicable.

#### **4.14 Waste Acceptance and deposited hot loads**

4.14.1 It is unlikely hot loads of waste wood will be brought to and deposited at the site. Waste acceptance procedures detailed in the site's IMS are in place to prevent incoming hot loads being accepted onto site. Staff are trained to be vigilant and identify any incompatible and non-conforming wastes including any hot loads.

- 4.14.2 However, in the rare and exceptional circumstance that any waste vehicles found to be carrying hot loads are identified at the weighbridge, the waste vehicle will be rejected and sent away. If on deposition, wastes are identified as a hot load, it will be segregated by mobile plant and taken to the quarantine area as defined in the attached Site Layout Plan drawings ref. 12800\_004 Phase 1 and Phase 2.
- 4.14.3 The site has use of water hoses which can be utilised should a hot load be found. Site staff are trained to watch for and identify any potential signs of fire e.g. smoke/steam coming from wastes and daily visual checks will be regularly carried out on waste loads.
- 4.14.4 Should any hot loads be deposited within the site and stored in the quarantine area, this waste will be inspected as part of the Site Inspection Form' checklist (Appendix 1) to ensure that the waste is cool and not smoking/smouldering.

#### **4.15 Hot and dry weather**

- 4.15.1 To prevent and check for any external heating of waste during hot and dry weather, all externally stored wastes will be subject to regular inspections. Wastes will be stored in individual concrete bays with high walls which will provide shading. All wastes will be stored for the minimum storage time, waste operations will be performed so that all incoming waste brought to site is processed, separated and loaded off-site in the shortest time possible.
- 4.15.2 Externally stored wastes include unprocessed wood waste, wood chip and fines in stockpiles within concrete holding bays and ferrous and non-ferrous metals stored in either concrete bays or skips.
- 4.15.3 It is considered that ferrous and non-ferrous metals will not be affected by hot weather.
- 4.15.4 If absolutely required, the use of onsite water hoses/fire reels can be used to cool down any materials showing any indicating signs of smoke, fire or smouldering, after it has been segregated from surrounding material and placed in the quarantine area to isolate it.

#### **4.16 Fire Watch**

- 4.16.1 The Fire Watch will be visual checks and observations on wastes, equipment and storage areas and will be carried out following hot works, and especially at the end of the working day to identify any potential for fire risk or any signs of smoking/ smouldering.
- 4.16.2 Hot exhausts/vents/surfaces of engines can ignite wastes/dusts/accumulation trapped near them or settling on them. Operators of site equipment and mobile plant will be instructed to ensure that wastes and other debris are cleared from around surfaces at the end of each shift.
- 4.16.3 Good housekeeping measures employed on site include short storage duration, regular inspection of wastes and site clean-ups. Tidying and litter picking at the end of every working day to ensure no on-site litter and minimise the accumulation of dusts.

## 5.0 PREVENTING SELF-COMBUSTION

### 5.1 Overview

- 5.1.1 Self-combustion happens when a material which can self-heat generates heat at a rate faster than it can be lost to the environment. The temperature continues to rise until the auto-ignition temperature is reached and the material then self-combusts. Prevention and ultimately negating the initial fire risk is therefore given the highest priority in terms of the control of a fire. The operator will employ a range of methods for fire prevention, and in addition to these, the site will carry out a daily 'Site Inspection Form' checklist (Appendix 1).
- 5.1.2 Wood wastes will be delivered to site and stored in the 'unprocessed waste' concrete storage bays in the south and east of the site prior to processing. The quantities of incoming wastes will depend on seasonality and demand and the duration of storage of the stockpiles will depend on processing capacity of the site, but the site will not accept waste quantities it is unable to process and store safely. Outgoing woodchip ready for export will be stored separately to the unprocessed wastes, in storage bays (or bunkers) to the north.

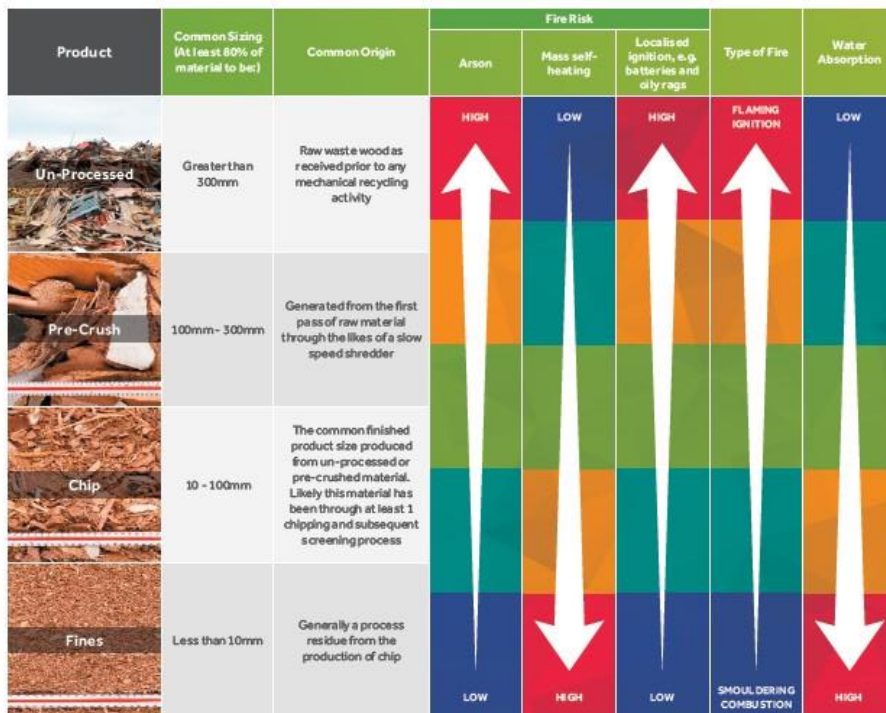
### 5.2 Fire Prevention Procedures

- 5.2.1 In general, unprocessed non-hazardous wood waste will be brought to site by HGV walking floor trailers (with a typical 100m<sup>3</sup> capacity), or RORO containers (with a typical capacity of 35m<sup>3</sup>) and following strict waste acceptance procedures at the weighbridge, will be tipped onto the floor of the designated tipping area before being visually inspected by trained site staff. Any hot loads received will be rejected from site.
- 5.2.2 Once inspections are complete and the waste is confirmed to conform with the permitted waste types, the load is then stockpiled into the 'unprocessed' waste storage bays, constructed of movable modular concrete walls, in the southern and eastern parts of the site by mobile plant.
- 5.2.3 Each 'unprocessed' and 'processed woodchip' storage bay will be constructed of concrete walls which will be 5m high and will be able to hold a maximum of 1500m<sup>3</sup> of loose stockpiled waste. The maximum height of the unprocessed waste stockpiles will be 4m high and will be marked on each bay with a line, so as to not exceed the height of the surrounding 5m high retaining wall. This will allow for a 1m freeboard area above the top of the stockpile, and also a 1m freeboard at the sides of the stockpiles and will act as a fire prevention measure limiting potential fires from spreading between stockpiles.
- 5.2.4 Other storage bays with smaller capacities for wood fines and metals will also be constructed of the same concrete blocks, however wall heights may be lower, and so stockpile heights will be adjusted to maintain the 1m 'freeboard' above each stockpile for fire safety.
- 5.2.5 The storage bays are to be constructed of movable modular concrete blocks, and therefore will be easy to move around by mobile plant. It should be noted that the set-up of the concrete storage bays on site may change due to operational requirements, however storage

arrangements will always take into account the stockpile size limits in the Environment Agency's Fire Prevention guidance and in this document.

- 5.2.6 Incidental contamination and production wastes (e.g. litter, plastics, unwanted fractions etc.) will be stored within a metal skip, away from other stockpiles and inspected as part of daily site inspections for signs of smoking or arson.
- 5.2.7 It is anticipated that the wastes most at risk from self-combustion would be the wood fines stored on site from processing (see Figure 4 below), due to their greater surface area and finer size. Stockpiles of fines will be stored on site in the concrete storage bays for short durations, typically 1 week, before being sent off-site, and in pile sizes of 300m<sup>3</sup>, to minimise the risk of self-combustion.
- 5.2.8 The processed wood chip is at a lower risk of self-combustion than the wood fines, however, if it is to be stored for a prolonged period then it will be screened to remove the finer fraction, and non-ferrous metal may also be removed during processing. Processed wood chip will be stored in concrete bays, and managed to ensure stock rotation, with the oldest stockpiles sent off-site first. Where processed wood chip stockpiles exceed the volumes stated in the Environment Agency's guidance, alternative measures such as temperature monitoring will be employed.
- 5.2.9 The unprocessed wood wastes are considered to be at negligible risk of self-combustion due to the fraction size. Whilst material will be broken & compacted during stockpiling, it will be handled to minimise the production of fines (e.g. machines will not track over stockpiles). Unprocessed wood will be stored in concrete bays, and managed to ensure stock rotation, with the oldest stockpiles processed first.
- 5.2.10 Storage bays can be adjusted, or additional bays created by moving the concrete blocks to account for longer residence times in periods of emergency shutdown or plant breakdown. The processed wood chip awaiting export off site is expected to be stored no longer than 48 hours after processing, however site procedures will be followed in the event longer storage times are required to ensure storage capacities are not overwhelmed. All wood wastes will be stored in external concrete storage bays with 5m high walls, in stockpiles no higher than 4m, to prevent fires from spreading should a stockpile spontaneously combust.





**Figure 4 – Behavioural Characteristics of Different Fraction Sizes of Waste Wood (source: Waste Recycling Association)**

5.2.11 The ferrous and non-ferrous metals are very unlikely to self-heat and combust and will be stored in stockpiles within the 250m<sup>3</sup> material storage bays or in skips. Likewise, the incidental contamination and production wastes (i.e. litter, plastics, unwanted fractions), although potentially combustible wastes, will be stored within a skip, at a suitable stand-off from other waste storage and emptied regularly when full.

5.2.12 Daily site inspections will be undertaken by trained site staff, using the ‘Site Inspection Form’ checklist in Appendix 1, which is to include for checking stockpiles and containers of waste stored on site for signs of self-combustion, heating, steam or smoke. If signs of self-heating stockpiles of waste are detected, the emergency measures outlined below will be employed to prevent further heating or developing into a fire.

5.2.13 It is not anticipated that any waste will be stored for longer than 3 months, with most wastes processed and removed from site within 48 hours to 1 week. However, if a stockpile of waste is stored for longer than 3 months, the operator will ensure extra fire prevention measures are implemented to prevent self-combustion, which will include monitoring and controlling temperatures within the waste stockpile by:

- Reducing the exposed metal content or proportion of ‘fines’ within the waste stockpile (exposed metals can oxidise which will generate heat, while fine particles are more prone to self-combustion) – this is undertaken during the proposed Phase 2 operations by shredding, screening and separating the incoming wastes before storing.

- Allowing any heat generated during treatment such as shredding to be released so that the waste is cool before forming it into piles for storage.
- Monitoring the temperature of the pile using a probe or other device as appropriate.
- Staff will be trained to detect and manage hotspots.

### 5.3 Action Plan

5.3.1 In the rare circumstance should there be any indication of self-heating of stockpiles, the following actions will be undertaken to cool the materials (unless another preferential strategy is determined):

- Wastes will be rotated as necessary to allow cooling;
- Wastes can be transferred and spread out within the quarantine area; and
- Cooled and any fire/heating doused utilising an appropriate source of water.

### 5.4 Managing Storage times

5.4.1 To prevent self-combustion, the storage time of all waste materials on site will be minimised and should not exceed the durations summarised in Table 2 (Section 2.2). As per the site's Integrated Management system (IMS) and waste acceptance procedures, all loads deposited at the site shall have the following information recorded at the weighbridge:

- Date and time of receipt of waste
- Vehicle size/type and registration number
- Name and address of customer/hauler
- Waste type and quantity
- Waste carrier registration number

5.4.2 The above procedure will similarly be followed for any outgoing loads of processed wood chip, metals, wood fines, incidental contamination and production wastes, and any other wastes. This monitoring of waste will allow the operator to track all material flow through the site to ensure that storage times are not exceeded. All waste materials will be processed on a 'first-in, first-out' principle and should it be required, mobile plant can be used to rotate stock in waste storage bays. This will be managed using a Stock Rotation Log, which records the dates when filling a bay is commenced, when filling a bay is completed, and when the bay is emptied. This will be included in the Integrated Management System for the site and will be filled in by site management/trained competent site staff.

### 5.5 Monitoring and Control temperature

5.5.1 Maximum storage times of combustible wastes will *typically* be (but not restricted to) as follows:

- Unprocessed wood wastes – 48 hours (but no more than 3 months)
- Woodchip including pre-shred – 48 hours (but no more than 3 months)
- Wood fines – typically 1 week, or when bay full (but no more than 3 months)
- Metals (ferrous and non-ferrous) – when bay or skip full (but no more than 3 months)
- Incidental contamination and production wastes containing litter, plastics or unwanted fractions etc. – when skip full (but no more than 3 months)

5.5.2 Unprocessed wood wastes, woodchip and fines are stored externally in concrete storage bays. The incidental contamination and production wastes containing any litter or plastics etc. will be contained in a skip. As part of daily inspections, stored wastes should be checked at regular intervals by trained site staff/management to ensure that there are no signs or smoking, smouldering or indications of fire or hotspots. Water from on-site hose reels or water sprayers can be used to cool or dampen the waste and mobile plant used to turn piles or spread out to allow cooling.

5.5.3 If a stockpile of waste is stored for longer than 3 months, the operator will ensure extra fire prevention measures are implemented to prevent self-combustion, which will include monitoring the temperature of the pile using a probe or other device as appropriate.

## **5.6 Waste Bale Storage**

5.6.1 There is no waste bale storage proposed for the site.

## **5.7 Waste ELV bales**

5.7.1 There is no ELV bale storage proposed for the site.

## 6.0 MANAGING WASTE PILES – STORING MATERIALS IN THEIR LARGEST FORM

### 6.1 Storing Materials in Their Largest Form

- 6.1.1 Operations will be carried out so that there is a rapid turnover of stock (typically with a residence time on site of between 1 – 4 weeks). This will drastically reduce the risk of ‘older’ material from self-heating and practically eliminating the potential for thermal build-up and self-combustion in waste piles.
- 6.1.2 Wood waste will generally be stored in its largest form (unprocessed wood) for as long as possible whilst on site, without impacting on the timely processing & transport off-site to customers.
- 6.1.3 However, as unprocessed wood does not lend itself to temperature monitoring, in order to comply with Environment Agency Fire Prevention guidance, if it needs to be stored for longer than 3 months it will be processed and stored as the next largest fraction (wood chip). In which case, rehandling will be minimised to prevent further degradation of the material (to avoid increasing the proportion of fines).

### 6.2 Maximum Pile Sizes

#### Unprocessed Wood

- 6.2.1 Incoming waste loads are anticipated to consist of bulky mixed wood waste, at very little risk of self-combustion due to the larger size fraction.
- 6.2.2 Proposed unprocessed waste wood stockpiles have been positioned away from site boundaries which border the public highway, to minimise the risk of arson.
- 6.2.3 Unprocessed wood is anticipated to be typically stored for between 48 hours – 2 weeks prior to processing.
- 6.2.4 Processing operations will be managed to ensure stock rotation, with the oldest stockpiles processed first.
- 6.2.5 All stockpiles of unprocessed wood will be contained within bays constructed of movable modular concrete blocks, suitable for resisting fire, and constructed to provide a freeboard of at least 1m (above and to the sides of material) where material is stored on both sides.
- 6.2.6 Any stockpile/face of combustible material which is not contained by a concrete wall will have a separation distance of at least 6m between the waste and the site perimeter, any buildings, or other combustible or flammable materials.
- 6.2.7 All stockpiles of combustible material will be inspected throughout, and at the end of, each working day for any signs of fire.

- 6.2.8 The combination of the above measures mean that the risk of fire in a stockpile of unprocessed wood is negligible, therefore it is considered appropriate for unprocessed wood bays to have a capacity up to 1,500m<sup>3</sup>.

#### Pre-shred Wood

- 6.2.9 'Pre-shred wood' is material which has only undergone shredding to reduce its size to approximately 300mm, without any further processing.
- 6.2.10 Pre-shred wood will be stored in line with the Environment Agency Fire Prevention guidance, in stockpiles up to 750m<sup>3</sup>.

#### Wood Chip

- 6.2.11 'Wood chip' is processed wood which has been shredded, screened to reduce the proportion of 'fines', and undergone separation to reduce the metal content.
- 6.2.12 Proposed wood chip stockpiles have been positioned away from site boundaries which border the public highway, to minimise the risk of arson.
- 6.2.13 Wood chip will typically be stored for up to 1 week prior to being transported off-site.
- 6.2.14 Site operations will be managed to ensure stock rotation, with the oldest stockpiles sent off-site first.
- 6.2.15 All stockpiles of wood chip will be contained within bays constructed of movable modular concrete blocks, suitable for resisting fire, and constructed to provide a freeboard of at least 1m (above and to the sides of material) where material is stored on both sides.
- 6.2.16 Any stockpile/face of combustible material which is not contained by a concrete wall will have a separation distance of at least 6m between the waste and the site perimeter, any buildings, or other combustible or flammable materials.
- 6.2.17 All stockpiles of combustible material will be inspected throughout, and at the end of, each working day for any signs of fire.
- 6.2.18 If a stockpile of wood chip is stored for longer than 3 months, the operator will monitor the temperature of the pile using a probe or other device as appropriate.
- 6.2.19 The combination of the above measures mean the risk of fire in a stockpile of wood chip is negligible, therefore it is considered appropriate for the wood chip bays to have a capacity up to 1,500m<sup>3</sup>.

#### Fines

- 6.2.20 'Wood fines' is the finer fraction produced by screening the shredded wood.

6.2.21 Wood fines will be stored in line with Environment Agency Fire Prevention guidance, in stockpiles up to 300m<sup>3</sup>.

#### Metals

6.2.22 Ferrous and non-ferrous metals will be stored separately (if they are recovered as part of the processing operations).

6.2.23 Metals will be stored in line with Environment Agency Fire Prevention guidance depending on the size of the recovered fraction either separate concrete storage bays or skips.

#### Incidental Contamination & Production Waste

6.2.24 Any incidental contamination (such as plastics or unwanted fractions), litter, and production wastes will be placed in a skip(s) which will be removed from site once full.

6.2.25 The combined volume of any skips/containers which are co-located will be in line with Environment Agency Fire Prevention guidance.

#### Phase 1 – Pre-Shred Operations

6.2.26 In the initial operations at the site, where it is expected less storage and processing capacity will be required, the 'Phase 1' Site Layout Plan (drawing ref. 12800\_004) shows a total of:

- 5 bays for unprocessed wood;
- 3 bays for pre-shred wood;
- 2 bays for material storage (e.g. recovered metals)

#### Phase 2 – Further Processing & Storage

6.2.27 The operational area of the site will be developed to facilitate greater throughputs and/or storage than is achievable in Phase 1. This will be put in place as the inputs to site increase and when greater storage is required.

6.2.28 In addition to the wood being shredded, it will also be screened to reduce the proportion of fines and may undergo further metal separation to recover the non-ferrous metals.

6.2.29 The 'Phase 2' Site Layout Plan (drawing ref. 12800\_004) shows a total of:

- 6 bays for unprocessed wood;
- 6 bays for wood chip;
- 2 bays for wood fines;
- 2 bays for material storage (e.g. recovered metals).

## **7.0 WHERE MAXIMUM PILE SIZES DO NOT APPLY**

### **7.1 Whole ELVs**

7.1.1 Not relevant – no ELVS will be accepted at the site.

### **7.2 Compost Production**

7.2.1 No composting activities are to be carried out at the site.

### **7.3 Waste stored in containers**

7.3.1 The EA's Fire Prevention Plan (FPP) Guidance stipulates that if you store waste in containers that can be moved, then maximum pile sizes do not apply.

7.3.2 Incidental contamination and production wastes (i.e. litter, plastics etc.) will be stored in a metal skip(s) awaiting removal from site for recycling or disposal, as appropriate. Ferrous and non-ferrous metals may be stored in skips or in the concrete storage bays. All other wastes (unprocessed wood waste, processed wood chip and wood fines) will be stored in the concrete storage bays.

7.3.3 Each container at the site will be made accessible from at least one side at all times so that a fire can be extinguished.

7.3.4 The skip can be moved by mobile plant on site as soon as reasonably practicable to prevent a fire spreading. If a fire occurs in a waste container, it will be moved to the quarantine area or an area which is 6m away from any other item, building or stockpile. If safe to do so, a fire hose reel or extinguisher can be used to douse the fire.

## 8.0 PREVENTION FIRE SPREADING

### 8.1 Separation distances

- 8.1.1 Unprocessed wood waste stockpiles, wood fines stockpiles and processed wood (woodchip) will be stored in designated fire-resistant concrete bays with 5m high walls, therefore negating the requirement for 6m separation. These stockpiles will be maintained at heights of no more than 4m, with this height marked out by a line within all storage bays, therefore ensuring a 1m freeboard above the stockpiles. The stockpiles will also be maintained with 1m freeboard at the sides of the stockpiles too to further prevent fires spreading between stockpiles.
- 8.1.2 If required, a separation distance of at least 6 metres will be maintained between loose waste stockpiles of waste and the site perimeter, any buildings or other combustible or flammable materials, where waste bays are not available. However, this is unlikely to occur.
- 8.1.3 Containers storing combustible waste can be moved around site away from other areas or to the quarantine area in the event of a fire occurring in or near to a container.

### 8.2 Fire walls and bays

- 8.2.1 Retaining walls of the storage bays around site will be constructed from concrete, where concrete has a major inherent benefit with regards to its fire-resistant properties and its material performance in a fire. It is non-combustible and has a slow rate of heat transfer, making it a highly effective barrier to the spread of fire.
- 8.2.2 Wastes stored in bays include:
- Unprocessed wood wastes - concrete storage bay
  - Pre-shred – concrete storage bay
  - Woodchip - concrete storage bay
  - Wood fines - concrete storage bay
  - Metals (ferrous and non-ferrous) – concrete storage bays where practicable (or may be in skips)
- 8.2.3 Wastes stored inside a container include:
- Incidental contamination and production wastes (i.e. litter, plastics, unwanted fractions etc.) – in a metal skip
  - Metals (ferrous and non-ferrous – in a skip where practicable (or may be in storage bays)
- 8.2.4 The locations of waste storage areas are shown in the Site Layout Plan drawings ref. 12800\_004 'Phase 1' and 'Phase 2'. The 'Site Inspection Form' checklist (Appendix 1) will be filled



out daily to ensure that all stockpiles and containers are being inspected and managed correctly in line with the Fire Prevention Plan.

## 9.0 QUARANTINE AREA

- 9.1.1 The site has two potential quarantine areas, as shown on drawing ref. 12800\_004, provided with an impermeable surface. When a quarantine area is required to be used, the designated quarantine area that is closest to the waste to be quarantined and that is free of objects, mobile plant and other wastes will be used, providing a 6m separation distance. This will depend on operational requirements that day and will be decided on by the Site Manager or deputy manager at the time.
- 9.1.2 In the worst-case scenario, the quarantine area is capable of holding at least 50% of the volume of the largest waste pile stockpiled at 2m height and is designated with a 6m separation distance.
- 9.1.3 The quarantine area provides a space where the site mobile plant can safely place burning wastes onto to extinguish them, and unburnt wastes can also be placed here to isolate them and prevent them catching fire.

## 10.0 DETECTING FIRE

### 10.1 Fire Alarm System

- 10.1.1 Site staff will be trained in the potential signs of a stockpile or container of waste showing signs of self-heating or combustion and will raise the alarm to other site staff and site management immediately.
- 10.1.2 As part of routine site inspections, all stockpiles and containers storing waste materials will be checked daily for signs of smoking, smouldering, steam, heat or flames and the alarm raised if detected. Any heat build-up or hot spots that are identified early will be cooled using water sources or waste piles rotated and spread out.
- 10.1.3 All operational staff on site will have a radio to communicate. In the event of a fire, the alarm will be raised immediately by shouting "FIRE, FIRE, FIRE" across site and also over the radio. An air-horn will also be sounded to alert site users to muster at the designated fire assembly point. Where possible, firefighting will be undertaken using fire extinguishers and water supplies (hose, sprayers, on-site tank) on site.
- 10.1.4 The fire alarm system will be tested weekly, this will be recorded in the 'Site Inspection Form' checklist (Appendix 1) (however not conducted daily).

#### *Out of hours*

- 10.1.5 The site will operate a CCTV system across the facility, with cameras monitoring activities 24 hours a day, 365 days a year. The CCTV is connected to a monitoring system which alerts Site Management to a site incident out of hours (when the site is unmanned).
- 10.1.6 The Site Management will notify the Fire and Rescue Service (FRS) of the Fire Information box which holds a copy of the Fire Prevention Plan. On arrival, the Site Manager/Deputy will engage with the FRS in any way and provide instructions to assist with the fire.

## 11.0 FIRE SUPPRESSION & FIRE-FIGHTING

### 11.1 Inside Buildings

11.1.1 There are no permanent buildings proposed to be situated on site, and therefore no wastes will be stored inside a building overnight or when the site is closed, therefore an automatic suppression system has not been specified.

11.1.2 The site offices are within mobile containers, which also house the canteen and welfare facilities. These will be supplied with fire extinguishers. Site operatives will carry out a daily site inspection to ensure that the site is being managed correctly and that all fire detection and suppression equipment is working.

### 11.2 Fire-Fighting

11.2.1 It is considered that most incidents of fire on waste sites are small and containable, thereby the use of mobile extinguishers and hoses is considered to be a more fit for purpose option over an automatic/fixed suppression system due to the following:

- The waste stockpiles are limited in size to manageable sizes, within fire-proof concrete bays, or within containers (i.e. skip).
- Hoses and extinguishers can be applied instantly and proactively by trained site staff. This will help allow a fire to be extinguished within 4 hours.
- Site staff will be trained in raising the alarm of a fire and in fire suppression duties of small manageable fires. For larger fires, the local Fire & Rescue Service for Derbyshire will be called, and all site staff and visitors evacuated to assembly point (see Section 12.0 'Water Supplies' below).
- Hoses and extinguishers are mobile allowing flexibility to tackle different waste areas, wastes can be doused should a portion alight or smouldering wastes need to be pulled out of a large stockpile by mobile plant, if safe to do so.

### 11.3 Fire Extinguishers

11.3.1 Site staff will be trained in fire safety awareness and in the use of site fire-fighting equipment. Fire extinguishers will be placed at strategic locations around the site, particularly in the site offices and weighbridge office. Mobile plant and processing plant will be fitted with fire suppression systems where appropriate (e.g. engine bays).

11.3.2 A check of fire extinguishers (e.g. if they are discharged/full, the service date etc.) will be undertaken weekly and logged in the 'Site Inspection Form' for that day. All fire extinguishers are subject to annual testing by an approved accredited supplier. All fire extinguishers conform to British Standards EN 3. Mobile plant on site (e.g. telehandler, wheeled loading shovel etc.) will be provided with fire extinguishers to be kept in the vehicle cab at all times in case of a fire emergency.

## 12.0 WATER SUPPLIES

### 12.1 Overview

12.1.1 In accordance with the Environment Agency's 'Fire prevention plans: environmental permits' guidance (updated 11<sup>th</sup> January 2021), there must be enough water available for fire-fighting to take place and to manage a reasonable worst-case scenario, typically the largest waste pile catching fire.

12.1.2 Water supplies and firefighting equipment will be provided on site and which will consist of at least 300,000 litres of water stored on-site, a fire hydrant(s) outside of the site boundary within 100m (as shown in Figure 6), and on-site fire extinguishers. It is also anticipated that the FRS will provide fire engines containing 1,800 litres each, and they will utilise the fire hydrant(s) located on Mansfield Road. The Derbyshire Fire & Rescue Service have also confirmed they would be able to use recirculated firewater on-site, facilitated by the site's proposed firewater containment infrastructure.

### 12.2 Water Supply Requirements for Worst-Case Scenario

12.2.1 The EA guidance on 'Fire prevention plans' states, '*a 300m<sup>3</sup> pile of waste will require at least 2,000 litres per minute of water for 3 hours*', (calculated to be a total of 360,000 litres or 360m<sup>3</sup>).

12.2.2 Based on this, the largest proposed stockpile of combustible material at the site will be 1,500m<sup>3</sup> and so will require at least 10,000 litres per minute for 3 hours, or a total of 1,800,000 litres (1,800m<sup>3</sup>) available.

12.2.3 It is considered that if fire waters on site were recirculated using the on-site water storage tanks and pump chamber, then less water than proposed in the above calculation would be required on site at any one time to tackle a worst-case scenario fire. Recirculation of water has been approved by Derbyshire Fire & Rescue Service.

### 12.3 Summary of Available Water Supplies

12.3.1 The summary of available water supplies at the site is provided below in Table 3:

**Table 3 - Fire water supplies available at Corbriggs Wood Processing Facility**

Description	Capacity & Flow	Location
Surface Water Attenuation Tank	Holding capacity of up to 740,000 litres. Capable of providing 10,000 litres per minute for up to 74 minutes, depending upon	Located on site, below ground, under the HGV & Mobile Plant Parking Area.



		on Mansfield Road (as confirmed by the Derbyshire Fire & Rescue Service).
Fire and Rescue Fire Engines	<p>Fire tenders containing 1,800 litres of water, flow rate of 18.9litres per second (1,134 litres per minute).</p> <p>Will connect to Fire Hydrant for unlimited supply of water.</p> <p>For comparison, if three fire engines attended site, this would amount to an initial attack of 5,400 litres (3 x 1,800 litres) of water, which could be discharged over the course of 4.76 minutes.</p> <p>Derbyshire Fire &amp; Rescue Service have confirmed the use of recirculated fire water at the site.</p>	Fire & Rescue Service engines/vehicles situated on site and at the site perimeter to tackle fire.

## 12.4 Fire Fighting Water Supply

- 12.4.1 The primary water supply for firefighting would be directly from the Surface Water Attenuation Tank.
- 12.4.2 This is because this tank is also crucial to the containment of contaminated firewater. If it is already full, then not only will it provide a larger source of water but using this water to fight the fire will also create the necessary volume to contain the firewater run-off.
- 12.4.3 However, if the Surface Water Attenuation storage is empty, then the site's 300,000 litre water supply for firefighting would be used.
- 12.4.4 In either scenario, all firewater run-off will flow into the site's drainage system, passing through a silt trap, prior to collecting in the Surface Water Attenuation Tank. From here it will be recirculated, creating a 'closed-loop' with minimal losses.
- 12.4.5 Whilst a small amount may be absorbed/adsorbed by the waste, or lost as steam, it is envisaged that such amounts could be replenished by water from the Surface Water Interceptor, Fire Tenders, and the Fire Hydrant.
- 12.4.6 The provision of at least 300,000 litres of water for firefighting, available to be used at 10,000 litres per minute, will result in a water supply for at least 30 minutes. This will provide

sufficient time for water to drain back to the drainage sump on site and into the attenuation tank for recirculation.

- 12.4.7 As the site can supply water at 10,000 litres per minute for between 30 – 104 minutes and can facilitate a closed-loop to recirculate firewater run-off thereafter, it is therefore considered that sufficient water supply is available to comply with the Environment Agency guidance.

## **12.5 Drainage Strategy**

- 12.5.1 The Drainage Strategy Plan, attached drawing (ref. 14866) shows the proposed underground attenuation tank that is proposed to be installed in the southern portion of the site, with an area of 977m<sup>2</sup>, a depth of 0.8m, and with a 95% void ratio, providing up to 742.52m<sup>3</sup> (742,520 litres) storage capacity of water. This design is based on a separate above ground water tank with capacity to hold at least 300,000 litres for firefighting.

- 12.5.2 Dependent on design arrangements, the attenuation tank may be over specified to incorporate the capacity of the above ground tank. This would provide a constant level of water stored within it from past rainfall events, at around 30% of the tank, stored in reserve. If this was the case, at least 300,000 litres of stored water would be available for use at any time, however this is to be confirmed. Such a design would replace the above ground water tank.

- 12.5.3 An existing interceptor is installed at the site, a Series 300 (Model 180) SPEL Stormceptor, designed to treat the surface run-off before leaving site (further removing pollutants such as hydrocarbons and suspended solids). The Stormceptor was recently cleaned and found to be in working order. This interceptor has a 'Net working capacity' of 9,200 litres, for a catchment area of 18,400m<sup>2</sup> (1.84 ha), which is sufficient for the proposed site area of approximately 1.7 hectares (17,000 m<sup>2</sup>).

## **12.6 Fire Water Recirculation**

- 12.6.1 Fire water will be retained on site by closing both stop valves. Fire water run-off will be collected in the surface water attenuation storage tank, from where it may be recirculated for firefighting.
- 12.6.2 The Derbyshire Fire & Rescue Service have approved the use of recirculated fire water at the site in the event of a fire.
- 12.6.3 Recirculation of firewater minimises the quantity of water required for firefighting and therefore the volume of contaminated fire water produced. Pollution control measures will include using straw bales to surround the drainage grate to intercept any suspended debris within runoff i.e. wood chips, before entering the silt trap and attenuation tank for recirculation.



## 12.7 Fire & Rescue Service

12.7.1 Once fire tenders arrive at site, assuming around three engines attend site, this would provide approximately 5,400 litres of water, before connecting the on-site water supply and recirculation system, fire hydrants, etc.

12.7.2 It is very unlikely more than one stockpile would be on fire at once, and very unlikely fire would spread due to the fireproof concrete storage bay walls, limits of stockpile sizes and other fire prevention measures in place at the site.

## 12.8 Fire Hydrants

12.8.1 The Derbyshire Fire & Rescue Service have confirmed there are the following fire hydrants available near the site to use in the event of a fire, located at the following 'What3Words' locations, and their locations shown in Figure 6 below:

- 1) ///frost.connects.minivans (closest, located approx. 90m southeast of the site)
- 2) ///stupidly.intruded.grape
- 3) ///dreaming.unions.conjured
- 4) ///swim.kind.quite

12.8.2 When asked, Severn Trent could not confirm the exact flow rates of the above fire hydrants, however they confirmed the delivery flow of a fire hydrant should be a minimum of 8 litres per second (480 litres per minute) for the fire service to make use of it in an emergency, and this would be of mains supplied water.



**Figure 6 - Locations of Nearest Fire Hydrants**

## 12.9 Fire Response

- 12.9.1 It is anticipated that most small fires can be doused by use of fire extinguishers and the water in the storage tank on-site, which can be used on site by trained staff, until further assistance is required and the arrival of the Derbyshire Fire and Rescue Service.
- 12.9.2 It is anticipated that the Derbyshire Fire and Rescue Service (FRS) will arrive on site with three fire engine appliances carrying 1,800 litres of water, which is enough for an initial attack on the fire and provide time to set into either the recirculating waters on site or a local fire hydrant on Mansfield Road. The closest hydrant is approximately 90m away to the southeast of the site boundary. The fire service have approved the recirculation of fire waters at the site in the event of a fire, during discussions with the operator in August 2022.
- 12.9.3 It is considered that with the combined use of the water tank on-site, fire engines and water hydrants, these will be able to provide a sufficient water supply to fully extinguish a worst-case scenario fire. As per the EA guidance, the rapid detection and immediate response (see Section 13 'Fire-fighting techniques') will be applied so that the waste pile will not be fully involved in a fire and therefore large volumes of water will not be required.

- 12.9.4 The waters used on site can be recirculated via the site's drainage system and surface water attenuation tank.
- 12.9.5 Due to the quick fire detection procedures on site, staff will be able to provide an immediate response to carry out manual fire suppression, therefore it is unlikely that large volumes of fire water will be required.
- 12.9.6 In the event of a fire breaking out, site staff will minimise the risk of it spreading, if necessary isolating it by either moving the burning material, or surrounding combustible material that is not yet affected.

## **12.10 Out of hours**

- 12.10.1 During out of hours, the Fire & Rescue Service (FRS) will be called out to site and have use of fire tenders and either the on-site water tank or connection to the fire hydrant(s), which will be clearly labelled.
- 12.10.2 Out of hours operations and use of water supplies are referenced further in Sections 13 and 14 of this document.

## 13.0 MANAGING FIRE WATER

### 13.1 Containment

- 13.1.1 In the event of a fire, all spent fire waters will be contained on site to prevent run-off and pollution to the surrounding environment by the site's impermeable surfacing and surface water drainage system, interceptor, attenuation tank and stop valves.
- 13.1.2 The site will benefit from an impermeable surface (constructed of concrete or tarmac) that will minimise infiltration of any spent fire water to escape down into the ground or over land beyond the site boundary into the surrounding environment/watercourses.
- 13.1.3 The proposed site area is approximately 1.7 hectares of which will include 13,970m<sup>2</sup> (13.9 ha) of hard surfaced area in the form of yards, storage areas, vehicle turning, parking and container offices. The natural fall of the site surfacing is inwards towards the centre and southern portion of the site.
- 13.1.4 Based on the water supplies available at the site from the above ground water tank, three fire engines and a nearby fire hydrant (see Table 3), it is proposed the site will need to be capable of holding at least 319,800 litres (after approximately 1 hour) or up to 391,800 litres of fire water (after a 3-hour period of fire-fighting).
- 13.1.5 The Drainage Strategy Report submitted as part of planning (document ref. 14866) concludes that the site will accommodate a 1 in 100 year storm/flooding event plus 40% climate change. This will be achieved with a below ground Surface Water Attenuation Tank with capacity for 740,000 litres, and a further 122,000 litres of above ground containment on the site surface.
- 13.1.6 As the primary source of water for firefighting will be to use water from the Surface Water Attenuation Tank, there will be capacity within the system to contain all fire water run-off.

### 13.2 Site Drainage System

- 13.2.1 The site benefits from an existing surface water drainage system and naturally falls towards the drainage grates on site, which were surveyed during recent works to prepare for the planning application for the wood processing facility, and the resulting findings are presented in the 'Flood Risk Assessment & Drainage Strategy' report ref. 14866-FRA & Drainage Strategy-02.
- 13.2.2 A Series 300 (Model 180) SPEL Stormceptor, a by-pass interceptor designed to remove pollutants such as hydrocarbons and silt from stormwaters and surface run-off, is present at the site. The Stormceptor was cleaned and found to be in working order. This interceptor has a 'Net working capacity' of 9,200 litres, for a catchment area of 18,400m<sup>2</sup> (1.84 ha), which is sufficient for the proposed site area of approximately 1.7 hectares (17,000 m<sup>2</sup>). This tank is approximately 1.8m internal diameter, 6.4m long. The interceptor is fed by a 300mm diameter pipe.

13.2.3 The Drainage Strategy Plan drawing (ref. 14866) shows the proposed attenuation tank that is to be installed, with an area of 977m<sup>2</sup>, a depth of 0.8m, and with a 95% void ratio, providing up to 742.52m<sup>3</sup> storage capacity of water. This is stated to be able to accommodate a 1 in 100 year storm/flooding event plus 40% climate change event additional.

13.2.4 Recirculation of fire water will be possible from the underground attenuation tank, therefore requiring reduced volumes of fresh water to tackle a fire.

13.2.5 From the Flood Risk Assessment & Drainage Strategy report, the following drainage system is proposed for the site :

*“Based on the proposed site usage and fire water retention requirements, the following drainage system is proposed:*

- *Surface water runoff will be conveyed overland by utilising dished channels or similar mechanisms to an existing drainage grate located in the southern extent of the site. Some limited ground raising in the region of 300mm – 500mm will be required in the easternmost extent of the site to re-grade the site and direct runoff towards the existing grate.*
- *Pollution control measures such as straw bales will surround the grate to intercept any suspended debris within runoff i.e. wood chips.*
- *Piped connections from the existing grate will be made to both the proposed foul and surface water drainage systems. Discharge into both the foul and surface water drainage systems will be controlled by valve chambers. Under normal conditions i.e. rainfall events, runoff will drain into the surface water drainage system. During rainfall events, flows into the foul drainage system will be prevented by the valve which will remain closed.*
- *In the event of a fire, where contaminated fire water may be present, runoff will be retained on site (by closing both valves) and reused by the fire service. This minimises the quantity of water required for firefighting and therefore the volume of contaminated fire water produced. Following a fire, contaminated fire water may then be discharged into the foul drainage system (pending agreement from Yorkshire Water), or tankered off site to an appropriate treatment facility. In such circumstances, contaminated fire water would be prevented from entering the surface water drainage system by closing the valve.*
- *During rainfall events, surface water from the grate will be directed to a silt trap and into an attenuation storage tank. Discharge from the tank will be made to a flow control chamber which in turn will discharge to existing surface water manhole S3. From manhole S3, flows will pass through an existing separator (for additional treatment) before entering Calow Brook.*

- *A pump chamber will be placed between the flow control chamber and manhole S3 to pump flows into a water storage tank to enable water re-use for the site's dust suppression system and also for re-use for firefighting. A telemetry system will be required to shut off the pump when the water storage tank is full.*
- *The attenuation tank will accommodate the 1 in 100 year plus 25% CC event. The difference in attenuation volume between the 1 in 100 year plus 25% CC event and 1 in 100 year plus 40% CC event (122m<sup>3</sup>) will be contained on site through controlled above ground flooding within the yard/vehicle turning area in the southern extent of the site".*

13.2.6 The Derbyshire Fire & Rescue Service have confirmed they would be able to recirculate the fire waters captured in the event of a fire. This will conserve water supplies in the local area. However, water tanks on site will also be available as a water source and also the nearby fire hydrant(s) on Mansfield Road could also be utilised, supplied with unlimited mains water supply.

13.2.7 The quick fire action responses of site staff will ensure that large volumes of water will not be required as fires will be detected before they become too large.

13.2.8 All exposed areas of site surfacing, concrete storage bays and containers will be visually inspected daily as part of daily site inspections, to ensure continuing integrity and fitness for purpose. Staff are trained on site to make visual observations and reports any signs of wear & tear and damage to the Site Manager. The inspection and any necessary maintenance and repairs of areas identified to be damaged or cracked will be recorded in the Site Inspection Form (Appendix 1).

### **13.3 Assessing risks to groundwater from fire water**

13.3.1 The site will benefit from an impermeable site surface (concrete or tarmac) that will prevent infiltration of any spent fire water to escape beyond the site boundary into the surrounding environment. Should a fire occur, the surface water drainage system will be isolated by penstock valve or similar to prevent the escape of potential contaminated fire waters to nearby surface and groundwater environments. Fire waters will then be contained on-site and later either discharged to sewer (pending agreement with Yorkshire Water) or tankered off-site for treatment.

13.3.2 It is considered that containment measures in place are suitable for the nature of the site activities to ensure there will be negligible impact and potential of the escape of contaminated fire waters to the groundwater and surface water environments.

## 14.0 FIRE FIGHTING TECHNIQUES

### 14.1 Overview

14.1.1 The site has been designed in ordered to allow active firefighting.

### 14.2 Immediate response

14.2.1 Upon identifying a fire, any employee will raise the alarm and alert all present on site to the fire and its location. The Weighbridge Operator or Site Manager will alert the emergency services.

14.2.2 Trained staff will activate and discharge either the fire extinguishers or fire hose reels and water tank(s) supply onto the fire impacted waste. Mobile plant will segregate any waste stockpiles not impacted by the fire to reduce the likelihood of fire spread. In addition, mobile plant can minimise the volume of the fire impacted stockpile by clearing away any unaffected waste, thus reducing the likelihood of the stockpile being fully involved in a fire and reducing the water requirements to control the fire. This will only be actioned if safe to do so.

14.2.3 Burning wastes can be isolated for cooling/and or dousing using the Quarantine area as required.

14.2.4 The site will be evacuated in accordance with the site evacuation plan with the exception of staff involved in active firefighting. The following procedures will be carried out:

- On discovery of a fire, the alarm will be raised immediately by shouting “FIRE, FIRE, FIRE” and calling the same message over the radio. An air horn will also be sounded to alert site users.
- All personnel, staff and visitors must evacuate and assemble at the designated fire assembly point located on the car park adjacent to the Site Office.
- The area will be evacuated, and no member of public, visitors or customers will be allowed to enter the site.
- Site Manager/Fire Warden discovering the fire, without endangering themselves or other, decide whether or not the fire can be controlled using the fire-fighting equipment (fire extinguishers etc.) on site.
- Call the Emergency Services for significant fires, and those which may affect site safety.

14.2.5 It is the responsibility of the Site Manager/Person in Charge to ensure that all personnel, visitors, sub-contractors are all accounted for, and to give that information to the Emergency Services on their arrival.

- 14.2.6 Small fires can be extinguished by trained members of staff on site with the use of appropriate handheld fire extinguishers or discharge of water from the water tank and hose reels. Fire extinguishers will be located as required around the site and offices for easy access and usage.
- 14.2.7 In the event of a fire in one of the containers, mobile plant will be deployed to isolate the affected materials and/or containers provided that it is safe to do so and isolate that container to the quarantine area. The container can be dowsed with either a fire extinguisher or hose reel to extinguish the fire.
- 14.2.8 Staff will only tackle the fire with use of the fire extinguishers or hose reels if it is safe to do so. In the unlikely event of a fire which has been unsuccessfully extinguished by the site's available suppression system, staff are to await the Fire & Rescue Service (FRS) who would then take the appropriate action.
- 14.2.9 Site access for emergency services and vehicles will be via the main entrance and accessibility will be unobstructed at all times for emergency services. Additionally, emergency vehicles will also be able to gain access onto site via the entrance to the car parks adjacent to the Site Offices. Access routes to waste storage and quarantine area in the event of a fire are shown in drawing ref. 12800\_004 Site Layout Plan for Phase 1 and Phase 2. The Site Manager/Person in Charge will:
- Control vehicle movements and prevent further access to the site by directing waste vehicles to alternative local third-party facilities;
  - Assist with the emergency services and to provide clear access routes to the fire, provide mobile plant if necessary; and,
  - Ensure that at no time, should personal safety be compromised.
- 14.2.10 Should the emergency services take control, water supplies are available as detailed in Section 11 'Water Supplies', including fire hydrants on Mansfield Road.

### **14.3 Out of hours response**

- 14.3.1 A fire pack will be located in a box at the entrance of the site cleared marked for the FRS to access in the event of attending site in the absence of personnel on site. The pack will contain:
- Site drawings showing the locations of hydrants, water tanks and extinguishers;
  - Information relating to the waste treatment operations on site;
  - Information relating to the mobile plant and vehicles on site;
  - Contact details for key holders.
- 14.3.2 In the event of an out of hours fire when the operator are not present on site, the CCTV surveillance company will contact the FRS who will force entry to site. According to the



Derbyshire Fire and Rescue Services response time map, the FRS can attend the site between 10-15 minutes following a call-out. Staff and key holders are able to attend the site within 30mins of a call out.

#### **14.4 Staff Training**

- 14.4.1 All personnel working on site will be provided training on the Fire Prevention Plan and all associated procedures and controls. FPP training will be provided to all new starters and temporary employees working at the site. FPP refresher training will be carried out at least annually.
- 14.4.2 Fire Marshall training will include safe use and deployment of fire extinguishers on small fires and procedures to call for assistance from the FRS.
- 14.4.3 As part of staff training, fire drills will be undertaken twice a year at the site, typically spaced around 6 months apart, which will include training on associated procedures and controls in the case of a fire. Records of fire drills and fire training will be made as per the site's Integrated Management System training schedules and records.
- 14.4.4 Staff training in fire prevention and procedures will be reviewed annually and further training undertaken if necessary. The skills and competencies necessary for key posts should be documented and records of training needs and training received for these posts maintained. The key posts will include those purchasing equipment and materials. Training is provided so that all workers have a satisfactory understanding of their duties in relation to fire prevention on site.
- 14.4.5 The documented management systems will include training requirements for all relevant staff which cover awareness of the FPP for the activity and their work activities. Training will also cover awareness of all potential effects from operation under normal and abnormal circumstances with respect to fire, the awareness of the need to report deviation from the FPP, and prevention of accidents and action to be taken when accidents occur. The potential risks posed by the work of contractors should be assessed and instructions provided to contractors about fire prevention while working on site, including the use of work permits. Where industry standards or codes of practice for training exist, they should be complied with.
- 14.4.6 The company's procedures on staff training for new and existing employees are included in the management system. As part of training, staff will also be made aware of the procedures for dealing with a hazard (including fire) and reporting an event, and the company's fire prevention procedure.

## 15.0 DURING AND AFTER A FIRE

### 15.1 During a Fire

15.1.1 During any firefighting or subsequent clean-up operation, any incoming wastes will be diverted to an alternative waste processing site.

15.1.2 All nearby residents, businesses and the Environment Agency will be notified during any firefighting taking place on site. Available staff will visit nearby residents and advise of the fire and precautionary actions such as keeping windows closed.

#### ***Small Fire***

15.1.3 If a fire is deemed small, safe and controllable, for example a small fire of smouldering waste, it will be dealt with by site staff, mobile plant can be utilised to pull the burning waste out into the open and away from any other wastes or nearby materials that could potentially catch fire. The fire will then either:

- Be extinguished at source i.e. within its container or storage bay, or;
- Moved to the designated quarantine area and extinguished using the fire extinguishers on site.

15.1.4 Fires can be extinguished by use of fire extinguishers or the discharge of water from the water tank supply.

15.1.5 Once the fire has satisfactorily been extinguished, the remaining area will be inspected by site staff to identify any signs of smouldering and decontamination procedures can then take place.

15.1.6 Site Management will make a record of the incident and the procedures carried out to manage the fire. An assessment will be carried out to determine whether further mitigation measures could have prevented the fire, with an update to the FPP and IMS as required.

#### ***Uncontainable Fires***

15.1.7 In the event of a major fire, whereby the fire is too large to control safely on site which cannot be dealt with by site staff, the following procedures will be carried out;

- a) Site Management/Person in Charge will contact the Fire and Rescue Services, and any other emergency services required immediately. When practicably possible, the regulatory bodies (Environment Agency) will also be contacted.
- b) Following the arrival of the Fire and Rescue Services and emergency services, all site staff will take instructions to assist with any procedures required, including;
  - Moving unburnt/unaffected wastes away from the fire using mobile equipment;

- Dampening down unburnt/unaffected waste;
- Isolating area around burning wastes;
- Evacuating people from site offices/other containerised welfare facilities;
- Halting any entrance of customers or site vehicles to site.

15.1.8 On the arrival of the Fire and Rescue Services (FRS), Site Management will ensure that there is clear and safe access to the site and will appraise the FRS with the details of the fire including the location and composition of the waste involved. Site Management will assist the FRS in any way safely and practicably to ensure that the fire is extinguished.

1.1 FRS access around the site and to waste stockpiles is as shown in the Site Layout Plan, drawing ref. 12800\_004, however locations of stockpiles may change due to operational requirements and site staff will make the FRS aware of any changes to stockpile/waste container locations prior to entering.

## 15.2 After a Fire

### *Engagement with neighbours and receptors*

15.2.1 Neighbouring, residential and commercial properties will be notified immediately of a fire at the site, where this is proportionate to the scale and relevant to the specific receptors that may be affected. Site Management (or their nominated persons) will visit the nearest neighbours and advise of a fire emergency at the site and advise of actions required to be taken i.e. closing windows and staying away from the site perimeter.

15.2.2 Contact with other properties located further afield will be undertaken under the direction of the Fire Rescue Services and/or emergency services attending site.

15.2.3 Management will contact their customers and their clients and advise them to re-direct their waste vehicles to an alternative facility until the site is operational.

### *Site Clean-Up*

15.2.4 Any fire waters/contaminated waters will be either discharged to sewer (subject to consent from Yorkshire Water), or tankered off-site to a suitable treatment facility for disposal.

15.2.5 After any fire or hot waste load event, the waste after extinguishing will be loaded onto an appropriate waste carrier and taken to landfill. Under no circumstances will this waste be mixed and/or placed within any of the waste streams on site. The quarantine area will undergo deep cleaning using the pressure washing facilities and brushes, where the surface water will be tankered off site to a suitable treatment site. Containers and any remaining waste affected by fire will be removed from site and taken to an appropriate disposal facility off site.

- 15.2.6 All site infrastructure, mobile plant and equipment will be checked to ensure they are functioning correctly and have had no fire damage. The Site Manager will carry out a thorough inspection of the site to ensure it is in a satisfactory condition before the site can reopen.
- 15.2.7 Following a fire which required the presence of the Fire and Rescue Service and emergency services, in addition to above, management will liaise with the regulatory authorities and Fire and Rescue Services to produce a plan to allow normal operations to the site.
- 15.2.8 After a significant fire incident and damage, technically competent manager and/or engineers will assess the degree of damaged caused by a fire, and the residual fire damaged waste, emissions or equipment.

## 16.0 REFERENCES

1. Environment Agency – ‘Fire Prevention Plans: Environmental Permits’, published July 2016, updated January 2021.
2. Wood Recyclers Association – ‘Writing Waste Wood Fire Prevention Plans (FPPs)’, updated February 2020.

## DRAWINGS

12800\_004 Phase 1

Site Layout Plan

12800\_004 Phase 2

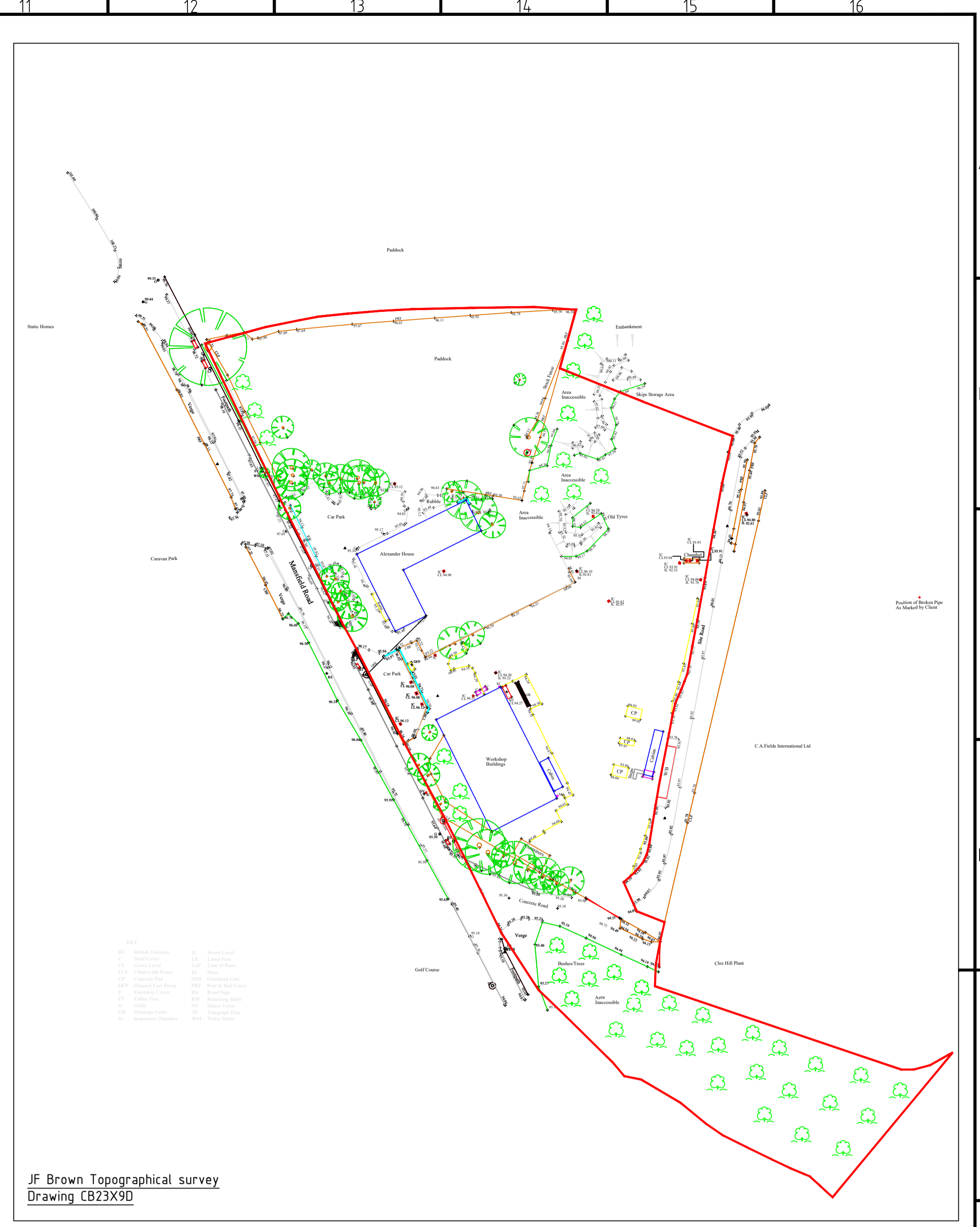
Site Layout Plan

14866

Drainage Strategy Plan

5448-CAU-XX-XX-DR-V-1800

Sensitive Receptor Plan



- Legend**
- Perimeter fence - Linear: 557m  
Area : 16,450m²
  - Purchased land boundary
  - Quarantine area & overnight parking for HGV & mobile plant
  - Processing plant
  - Overnight parking for HGV & mobile plant

**PHASE 1**

KRONOSPAN STATUS		Date	
STATUS	DATE	STATUS	DATE
DESIGNED	17.10.2022	DESIGNED	17.10.2022
PERMITTED	17.10.2022	PERMITTED	17.10.2022
CONSTRUCTION	17.10.2022	CONSTRUCTION	17.10.2022
OPERATIONAL	17.10.2022	OPERATIONAL	17.10.2022
CERTIFIED	17.10.2022	CERTIFIED	17.10.2022

Index	Modification	Date	Name	Size	State
D	Stock pile layout	17.10.2022	A. Hilditch	A1	1:200
C	Boundary update	10.10.2022	A. Hilditch	orig	1:100
B	Boundary update	06.10.2022	A. Hilditch	orig	1:100
A	Electrical box	03.10.2022	A. Hilditch	orig	1:100

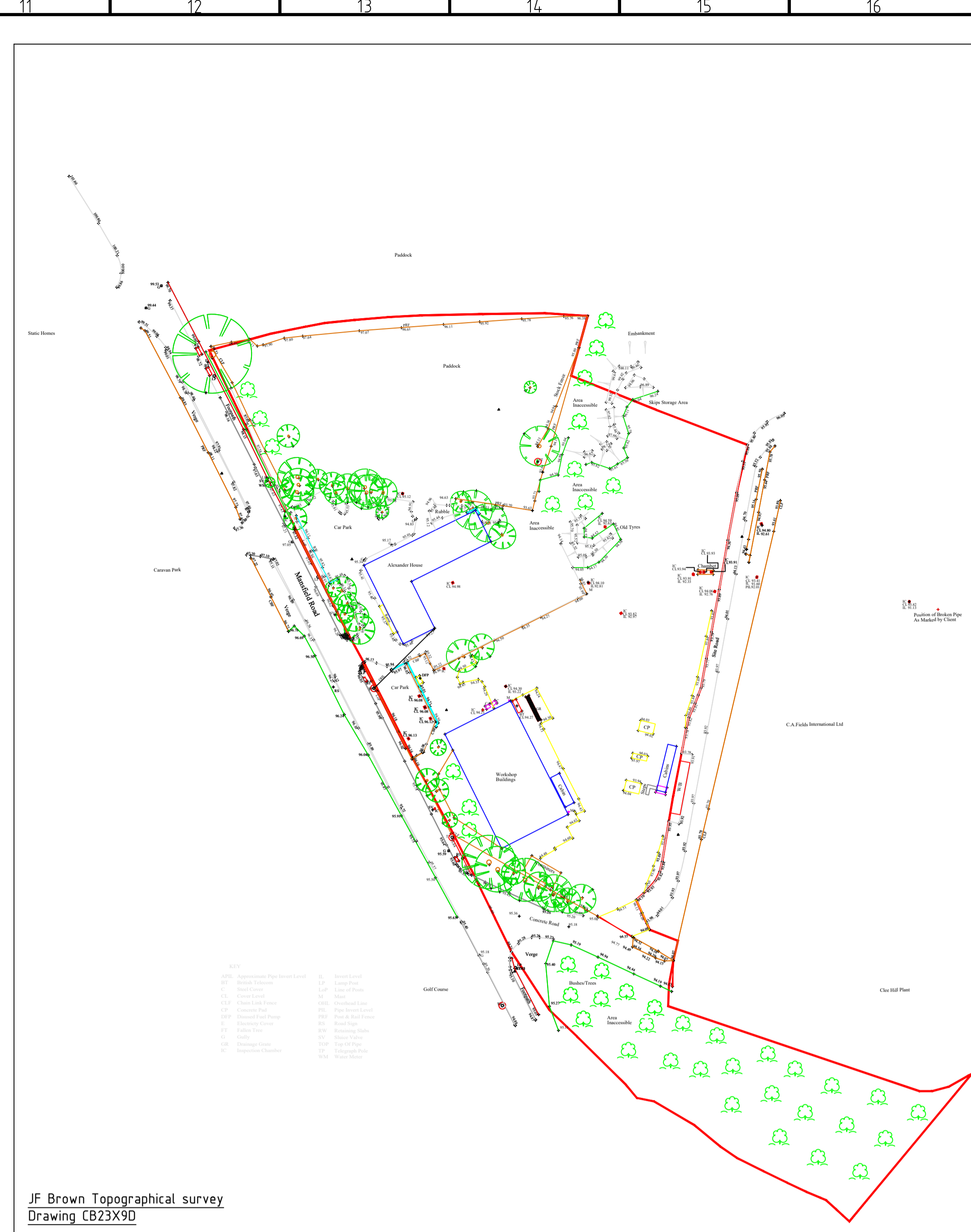
Status	Date	Name	Size	State
Project leader	31.05.2022	J. Arkley	A1	1:200
Drawn	31.05.2022	A. Hilditch	orig	1:100
Checked	30.09.2022	C. Emery	orig	1:100

 Xylo Technologies AG Rüblihofstrasse 1 CH-9052 Niederfeulen Schweiz	Project name	G.A. Stock piles Recycling Centre, Corbriggs
	Project number	12800_004

 Kronospan Ltd Hatzopyn Farm LLN SMI Clark, Wrexham United Kingdom	Index	D
Sheet/Number 1/2		



**Legend**

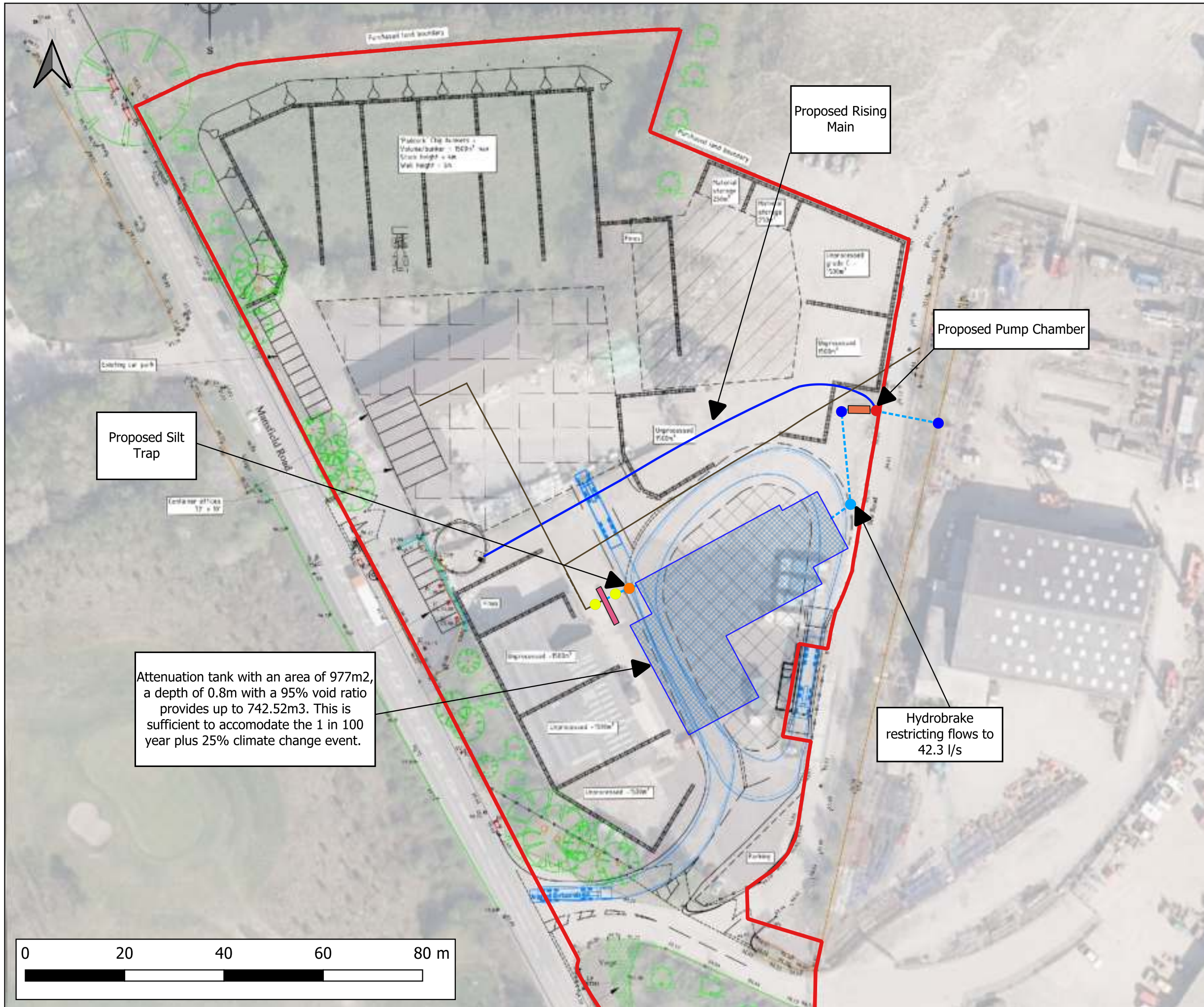
- Perimeter fence - Linear: 557m  
Area : 16,450m<sup>2</sup>
- Purchased land boundary
- Quarantine area & overnight parking for HGV & mobile plant
- Processing plant
- Overnight parking for HGV & mobile plant

**PHASE 2**

KRONOSPAN STATUS	
Date 17.10.2022	
STATUS	MANAGED BY
KRONOSPAN	YYYY-MM-DD
YYYY-MM-DD	YYYY-MM-DD
DISTRIBUTION	STATUS APPROVAL
YYYY-MM-DD	YYYY-MM-DD
REVISION	REVISION
REVISION	REVISION
CERTIFIED	YYYY-MM-DD

E	Stock pile layout	17.10.2022	A. Hilditch
D	Purchase land boundary updated	10.10.2022	A. Hilditch
C	Position of purchase land boundary updated.	07.10.2022	M. Welch
B	Paddock concrete wall amendment	06.10.2022	A. Hilditch
A	Paddock concrete wall amendment	03.10.2022	A. Hilditch
Index	Modification	Date	Name
Status	Project leader	Date	Name
Drawn	31.05.2022	J. Arkley	A1
Checked	31.05.2022	A. Hilditch	origin
Project number	30.09.2022	C. Emery	
Project name			
 Xylo Technologies AG Rüblihofstrasse 1 CH-9002 Niederfeulen Schweiz		 Kronospan Ltd Hatzospan Farm LLN SMI Clark, Wrexham United Kingdom	
Description <b>G.A. Stock piles</b> <b>Recycling Centre, Corbriggs</b>		State 1:200 1:100 Norm ISO	
Drawing number <b>12800_004</b>		Index / Sheet/Number <b>E / 1/2</b>	
Sub Category	Division	Process	Subprocess





Notes:  
 1) This sketch has not been subject to formal checks or approvals. Its validity and use must therefore be limited to discussion and information purposes only.  
 2) Unless otherwise noted the risks associated with this proposal are not considered to be extra ordinary and within the remit of an experienced and competent contractor.  
 3) All dimensions in millimetres and all levels in metres above ordnance datum unless shown otherwise.  
 4) This drawing is an ammendment of the 'Phase 2 Site Layout Plan' provided by 'Caulmert Ltd'. This drawing provides a concept only and is not intended for detailed design.

**LEGEND**

- Site Boundary
- Proposed Attenuation Tank
- Proposed Interceptor
- Existing Separator
- Existing Drainage Grate
- Proposed Surface Water Drain
- Proposed Rising Main
- Existing Foul Drain
- Proposed Silt Trap
- Proposed Pump Chamber
- Proposed Diverter Valve
- Proposed Flow Control Chamber
- Existing Surface Water Inspection Chamber

CLIENT:  
 Caulmert Ltd



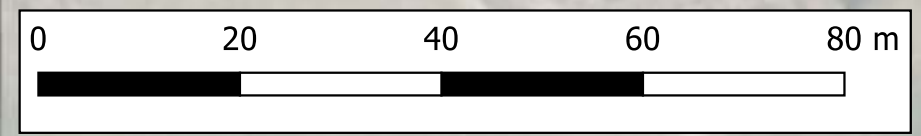
SCHEME:  
 Mansfield Road, Corbriggs

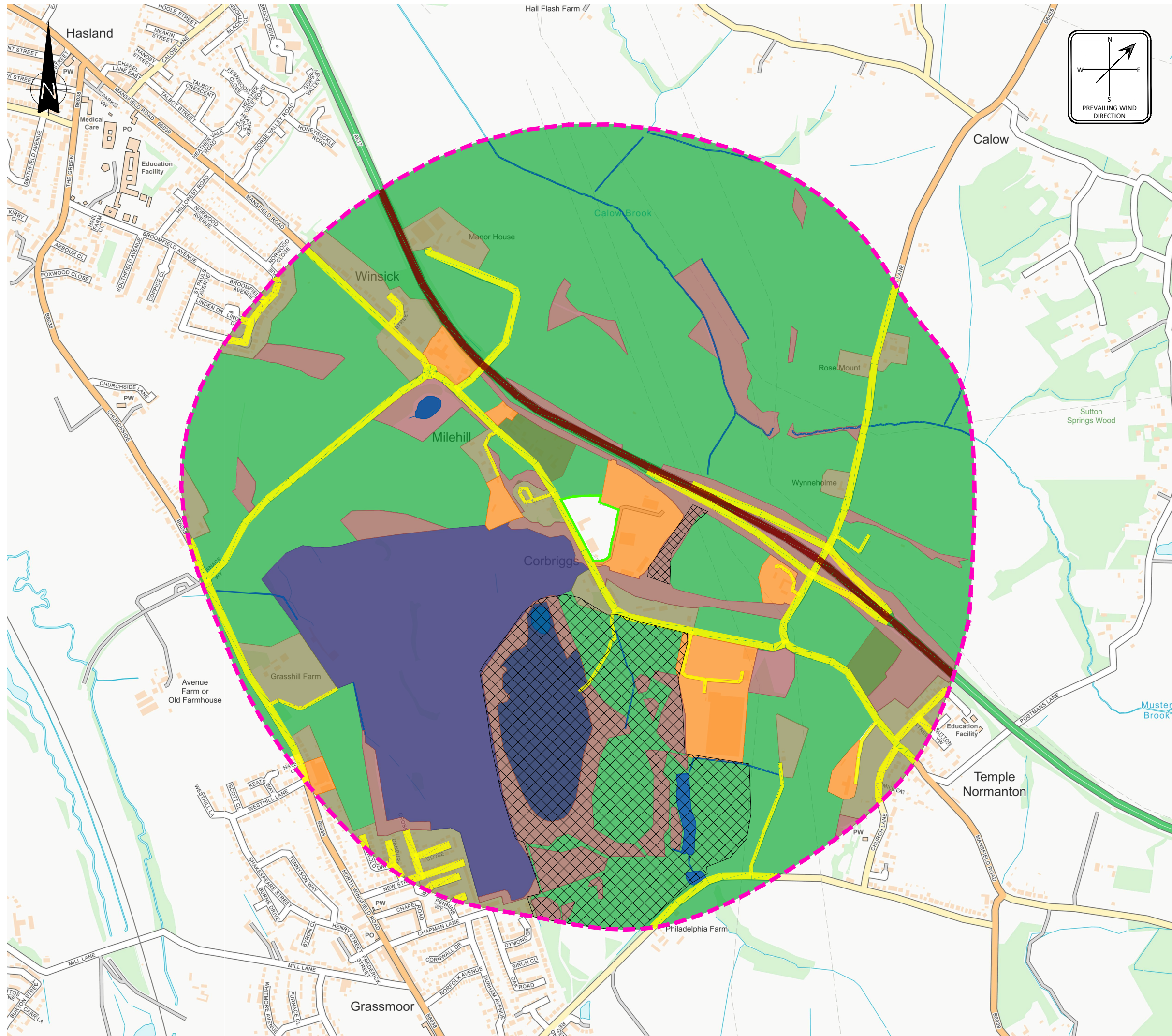
PLOT TITLE:  
 Concept Drainage Sketch

PLOT STATUS: CONCEPT DATE: 24-10-2022

DRAWN: RM CHECKED: AW APPROVED: NJ PLOT SCALE AT A3: 1:750

PLOT NAME: 14866\_Concept\_Drainage\_Sketch REVISION: -





**LEGEND**

- PROPOSED PERMIT BOUNDARY
- 1000m OFFSET
- SURFACE WATER
- WOODLAND / SCRUBLAND
- RECREATIONAL
- COMMERCIAL / INDUSTRIAL
- RESIDENTIAL
- MAJOR ROAD
- MINOR ROAD
- RAIL
- AGRICULTURAL
- LOCAL WILDLIFE SITES

P03	CLIENT COMMENTS INCORPORATED	EJD	SH	SH	02.12.22
P02	BOUNDARY UPDATED	EJD	SH	SH	09.11.22
P01	ISSUED FOR INFORMATION	EJD	SH	SH	01.11.22
REV	MODIFICATIONS	BY	RE	AP	DATE
PURPOSE OF ISSUE					STATUS
<b>FOR INFORMATION</b>					<b>S2</b>

CLIENT:  
**SILVA RECYCLING LTD**

PROJECT:  
**CORBRIGGS WOOD PROCESSING FACILITY**

TITLE:  
**SENSITIVE RECEPTORS PLAN**

DESIGNED BY	DRAWN BY	REVIEWED BY	AUTHORISED BY
EJD	EJD	SH	SH
DATE	SCALE @ A3	JOB REF:	REVISION
01.11.2022	1:10,000	5448	P03

DRAWING NUMBER  
**5448-CAU-XX-XX-DR-V-1800**



Registered Office: Intec, Parc Menai, Bangor, Gwynedd, LL57 4FG Company Registered No: 06716319

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## APPENDIX 1

### Site Inspection Form

# DAILY SITE INSPECTION FORM

WEEK STARTING:



DAILY SITE INSPECTION	DAY							NOTES / REFERENCE
	M	Tu	W	Th	F	Sa	Su	
SITE ENTRANCE / NOTICE BOARD								
SECURITY - PERIMETER FENCING & GATES								
SECURITY - PORTACABINS & STORES								
EXTERIOR CONDITION - PORTACABINS & STORES								
INTERIOR CONDITION - OFFICES								
INTERIOR CONDITION - STORES								
INTERIOR CONDITION - WELFARE FACILITIES								
WEIGHBRIDGE								
GENERAL HOUSEKEEPING								
FUEL TANK / BUND								
SITE ROADS / SURFACES								
DRAINAGE (CATCH PIT & INTERCEPTOR)								
WASTE STORAGE								
WASTE TYPES: - QUANTITY - QUALITY	Unprocessed Wood							
	Woodchip							
	Wood Fines							
	Ferrous Metal							
	Non Ferrous Metal							
	General Waste							
	Quarantine Area							
AMENITY CHECKS:	Debris / Litter							
	Dust							
	Noise / Vibration							
	Odour							
	Pests / Vermin							
SPILL KITS								
FIRE EXTINGUISHERS (Weekly)								
FIRE ALARM SYSTEM TEST (Weekly)								(All radios working)
FIRST AID KITS								
OTHER								
INSPECTION CARRIED OUT BY:								
FIREWATCH COMPLETED BY:								
NOTES / ACTIONS (CONTINUE ON A SEPARATE SHEET IF NECESSARY):								
CHECKED BY:				SIGNATURE:				
POSITION:				DATE:				
Sheet				of				



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